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EFFECTIVENESS OF COUNSELING IN COLLEGE RESIDENCE HALLS ON STUDENTS' STUDY BEHAVIOR. FINAL REPORT.

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DESCRIPTORS- *COUNSELING, *COLLEGE STUDENTS, *COUNSELOR EVALUATION, *POSITIVE REINFORCEMENT, STUDENT ATTITUDES, RESEARCH PROJECTS, ANALYSIS OF VARIANCE, COLLEGE HOUSING, *RESIDENT ASSISTANTS, ACADEMIC ACHIEVEMENT, GROUP COUNSELING, BEHAVIORAL COUNSELING, STUDY HABITS,

PURPOSES OF THIS STUDY WERE--(1) TO TEST EFFECTS OF REINFORCEMENT COUNSELING ON STUDENTS' STUDY BEHAVIOR, ATTITUDES TO COLLEGE SUCCESS AND STUDY, AND ACADEMIC ACHIEVEMENT, AND (2) TO EVALUATE USE OF NONPROFESSIONALS IN A PLANNED RESIDENCE HALL COUNSELING PROGRAM. THE THREE RESPONSE CLASSES CONSTITUTED DEPENDENT VARIABLES FOR THE STUDY (SS' USE OF EFFECTIVE STUDY HABITS, ATTITUDES TO STUDY AND COLLEGE SUCCESS, AND PERFORMANCE IN COURSES), WITH REINFORCEMENT COUNSELING THE PRIMARY INDEPENDENT VARIABLE. A PRETEST-POSTTEST CONTROL GROUP DESIGN WITH ACTIVE AND INACTIVE CONTROLS AND SS ASSIGNED RANDOMLY TO TREATMENT CONDITIONS WAS USED. THE FOUR TREATMENT CONDITIONS WERE SPECIFIC CUE-REINFORCEMENT (CR), GENERAL CUE-REINFORCEMENT (R), PLACEBO GROUPS (P), AND INACTIVE CONTROLS (C). PREDICTIONS THAT SS IN REINFORCEMENT COUNSELING GROUPS WOULD HAVE HIGHER SCORES ON CRITERION TESTS THAN CONTROL SS WERE CONFIRMED. SIGNIFICANT TREATMENT EFFECTS WERE NOT QUALIFIED BY DIFFERENCES IN SEX AND MAJOR FIELD OF SS, OR COUNSELOR DIFFERENCES, ATTITUDES TO COUNSELING TECHNIQUE OR COUNSELING PRACTICE. THE PREDICTION THAT MODIFICATION IN STUDY BEHAVIOR AS A FUNCTION OF REINFORCEMENT TREATMENT WOULD GENERALIZE OVER TIME WAS CONFIRMED BY SIGNIFICANT DIFFERENCES BETWEEN TREATMENT CONDITIONS IN A SIX-MONTH FOLLOW-UP. THE PREDICTION THAT SS UNDER REINFORCEMENT COUNSELING WOULD DEVELOP MORE FAVORABLE ATTITUDES TO STUDY THAN CONTROL SS WAS NOT CONFIRMED. (AUTHOR)

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FINAL REPORT
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**Effectiveness of Counseling in College
Residence Halls on Students' Study Behavior**

**Project No. 3269
Grant No. OE.6-10-192 5-0920**

T.A. Ryan

May 1967

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I. Introduction

A. Problem

This study of group counseling by non-professionals in university residences was designed primarily to come to grips with the college dropout problem. The study also was concerned with the general problem of insufficient professionally trained personnel to meet the needs of increasing enrollments in universities and colleges. Finally, it was intended that data from the study would provide information relevant to defining educational and guidance functions of the university residences.

The purposes of the investigation were (1) to test effects of reinforcement counseling on students' study behavior, academic achievement, and attitude to college success; and (2) to evaluate use of non-professional student-advisors in a planned residence hall counseling program.

B. Background

Tens of thousands of students withdraw from institutions of higher education each year because of scholastic failure. These students fail to meet minimum standards of scholarship performance, even though they have the potential capacity for academic success. They fail to achieve the minimum grade point average required for continued enrollment and are suspended by their universities for scholastic deficiency, or withdraw voluntarily in face of a decreasing GPA which ultimately would result in university suspension.

Why do these potentially capable students fail? Of all the factors pointed up through research as being related to failure of college students, use of effective study habits has been recognized generally as being one of the most critical. Research pointing to the relationship between students' use of good study habits and their academic success clearly indicated a correlation between scholastic success and study habits, time spent in study, methods of study, and use of library (Brass, 1965; Farnsworth, 1955; Harris, 1940; Rust, 1955). Identifying the use of effective study habits as a critical variable related to achievement of scholastic success is one thing. Finding ways to help students develop and use effective study habits is something else. The residence hall counseling project initiated at Oregon State University in 1965 attempted to find an answer to the question, "What can institutions of higher education do to increase the chances for scholastic success of students admitted to universities and colleges?"

Undergirding the development of the project were two situational factors. First, there was a student-defined need for helping in developing and using good study habits. Second, the student personnel staff at the university was intent on redefining the role of residence advisor and developing strategies for making residence halls educational centers.

In 1964 a group of students asked for help in achieving scholastic success. The students stated in a straight forward manner, "We know what we want to accomplish, but we don't know how to go about it. We want to improve our study habits. We want to increase our GPA." At the same time, under leadership of Robert W. Chick, Dean of Students, a concerted program was undertaken to improve and expand student personnel services of the university. One of the priority items under consideration by the student personnel staff was the residence hall program. The staff was intent on finding ways by which student advisors could implement a guidance role. Dean Chick and his staff were interested in finding ways by which student advisors could be more effective in helping students in the residences develop more favorable attitudes to college and achieve scholastic success.

Underlying the efforts of the staff to redefine the role of student advisor and restructure the residence hall program was a central concern about the college dropout problem. The philosophy providing a frame of reference for the residence hall project was that students who are admitted to the university have a right to succeed and deserve assistance in implementing this right. It was felt that the process of probation-suspension failed to provide the kind of assistance to students at times when help is most needed, and that although students derived great benefits from the university counseling center, the large student enrollment and the student-staff ratio precluded the possibility of extending the counseling center services to reach all students. In considering the problem of improving student personnel service, it was agreed that the critical need was for a program to help students realize their scholastic potential. It was assumed that to be effective a program, which in effect would satisfy concerns of the student personnel staff and meet the needs expressed by students, would have to be one which would reach the majority of students, use methods and materials based on evidence of probable success, be organized systematically, and satisfy practical considerations of economic efficiency and staff-time limitations.

This research project was designed to test experimentally a program intended to meet these specifications, and at the same time provide a solution to the problem of scholastic failures by potentially

capable college students. The program was designed to be implemented in university residences with student-advisors performing a counseling function. Reinforcement counseling was selected as the primary experimental method to be employed in the program. Choice of reinforcement techniques to implement the experimental program was made on the basis of research data supporting viability of these techniques under related conditions (Ryan, 1964; Krumboltz, 1964).

Prior to undertaking the investigation a pilot project, supported by Oregon State University General Research Fund, was conducted in 1964-65 to permit tightening of the experimental design, pretesting data-gathering techniques and instruments, identifying needed program modification, and developing materials for counselors' packets and training seminars.

C. Related Research

At the time the investigation was undertaken a search of the literature for studies reporting educational advising-counseling techniques or programs in university residence halls using non-professionals in the advising role revealed a lack of research in the area in spite of a background of historical antecedents for considering residence halls as educational centers. In the Middle Ages residences at universities in England were conceptualized as halls of learning. In the 1830's Bishop N. F. S. Grundtvig initiated the folk school concept based on the assumption that school residences in which students and faculty live together and share ideas foster learning.

One study reported by Sander (1964) investigated comparativeness of individual and group advising for freshmen living in men's residence halls at State University of Iowa. Three criterion measures were used in the Sander study, first semester college grades, persistence in college through first semester, and accuracy of self perception. Findings from the study failed to reveal any statistically significant differences between advising methods and failed to provide evidence of effectiveness of educational advising performed by student advisors in a dormitory. This study suggested feasibility of investigating effects of various approaches by student advisors in residence halls to bring about direct modification of study habits and ultimately to influence academic achievement of students in the halls.

Limitations deriving from methodology qualified the conclusions from the investigation and suggested the need for research designed to overcome the limiting factors. The design of the Sander study did not include a placebo group; thus there was no control for

Hawthorne effect. The independent variable was not defined in behavioral terms. Although the study compared "individual" and "group advising" there was no control over techniques used in the two settings. The criterion was limited to change in GPA during the semester in which the experiment took place, thereby introducing a further qualification on findings. The design of the study at Oregon State University was intended to overcome limitations of the Sander investigation. The dependent variable was defined to permit using study behavior as a criterion as well as including provision for follow-up to test long-term effects. Placebo groups were included to control for Hawthorne effects. Advising procedures were specified in sufficient detail to permit replication.

Ofman (1964) described a program at University of California at Los Angeles, using group counseling with college students to bring about; change in study behavior. Apparently this study was not intended as a research study; therefore, no indication of effects of the group seminar approach is given. The format consisted of seminar section meetings for one hour twice weekly for six weeks. Ofman reported that the underlying approach was based on the belief that change in study behavior was to a large extent a function of change in attitude, feelings, self-perception, and that behavior change is facilitated where threat is diminished, acceptance is experienced, and participation and involvement are maximized. Major limitation to the Ofman study derives from the lack of a design to test the stated hypotheses of the study. The investigation at Oregon State University was designed as a research study to test experimentally under controlled conditions effects of reinforcement counseling on students' study behavior. The counseling sessions were designed to include planned sessions which would maximize participation and involvement of students.

A study directly related to the investigation at Oregon State University was initiated subsequent to the starting date of this research. The study, directed by William F. Brown, Southwest Texas State College, focused on student-to-student counseling and contributed to the knowledge about use of sub-professionals or non-professionals for advising incoming freshmen in personal, social, academic matters within the context of a total college student personal program.

A research conference held at the University of Michigan under grant from the Cooperative Research Program, in 1964 was concerned with social science methods and student residences. The potential of the university residences as educational centers which could contribute to and facilitate students' learning was pointed up by Dressel (1965), Greenleaf (1965), Hardee (1965), and Williamson and

Marquardt (1965).

Endorsement of the concept of college housing as learning centers was given by American College Personnel Association and Association of College and University Housing Officers in a monograph released in 1965 (Riker). The study which was conducted at Oregon State University provided experimental data relevant to the concepts promulgated at the research conference on social science methods and student residences and in the monograph of the American College Personnel Association.

D. Rationale

The rationale undergirding the study derived from a set of assumptions having support from other research.

1. It was assumed that study behavior is related to academic achievement. The general aim of the study was to deal with the college dropout problem by helping students achieve scholastic success. Implementing the general aim were specific objectives relating to increase of students' use of effective study behavior and improvement of students' GPA. An implicit assumption underlying the definition of these objectives was that continued use of effective study behavior would be related positively to improved scholastic performance. This assumption was supported by findings from studies of Bragg (1956); Farnsworth (1955); and Rust (1956) in which a positive correlation was found between study habits and academic achievement. Choice of effective study behavior as the main dependent variable in the study derived from two sources: (a) the Sander study, which pointed up the difficulty in using persistence in college as criterion measure; and (b) research on study habits and academic achievement.

2. It was assumed that group counseling can be used to increase academic achievement. Considerable research had been reported on use of group counseling and therapy in educational and non-educational settings. Findings had indicated effectiveness of group counseling with parents of underachieving elementary school children (Sonstegard, 1962), junior high school students (Caplan, 1957), and high school students (Ohlsen, 1960). On the basis of a series of experiments carried out as Cooperative Research Projects demonstrating values of group counseling as a technique in public schools, Cohn (1963) and Comb (1963) concluded that group counseling was especially effective when applied to adolescents. Studies conducted at universities in Minnesota, Illinois, Wisconsin, and at Columbia and Stanford suggested that group counseling was a viable approach for college age

youth. Findings from the pilot study at Oregon State University suggested that group counseling could be used in university residences. Sander (1964) and Ofman (1964) reported feasibility of group counseling with college students.

3. It was assumed that behavioral counseling is a viable approach for modifying behaviors of individuals. Research data were reported supporting use of reinforcement as a viable technique for modifying behavior. Verbal reinforcement has been shown to be effective in modifying behaviors ranging from influence on increasing responses of plural nouns (Greenspoon, 1955) to increasing length of time of continuous speaking by interviewees (Matarazzo, 1963). The use of reinforcement counseling in educational settings to modify student behavior had been shown to be effective in elementary, secondary, and post secondary schools. Johnson (1964) reported that shy children changed behavioral responses to decrease shyness following reinforcement counseling in small groups. Schroeder (1964) found that high school students changed behaviors by increasing information-seeking responses following reinforcement counseling. Ryan (1964) found that college students increased decision-making behavior following planned reinforcement counseling and that behavior modification generalized to a non-counseling setting. Ryan and Krumboltz (1964) and Krumboltz and Thoreson (1964) reported studies supporting the hypothesis that behavioral counseling, using planned reinforcement and model-reinforcement, was effective in changing behaviors of college and high school students. In the pilot study of reinforcement counseling with small groups in residence halls, Ryan (1965) reported significant changes in study behavior following reinforcement counseling. The rationale for selecting behavioral counseling as the main independent variable for the study derived from findings of the studies on behavioral counseling, supporting viability of the use of reinforcement techniques in modifying behavior selectively.

4. It was assumed that motivation is a major factor influencing behavior of students. Ryan (1964) demonstrated that students who are given a chance to select instructional approach they wanted performed significantly better on criterion tests than those who had no choice. This finding was in line with studies of counseling effectiveness suggesting that clients who were self-referrals tended to show greater behavior change than those who were agency-referrals. This assumption suggested that students who volunteered for participation in group counseling would make greater improvement in study behavior than those who were referrals.

E. Purposes and Objectives

The general aims of the study were to decrease the dropout rate of college students who were potentially capable of academic success and to implement a plan for making university residences educational centers with student resident assistants implementing a guidance role.

Specific objectives of the study were to test effects of reinforcement counseling on study behavior, as measured by a Study Habits Inventory; attitudes to college success and study, as measured by open-ended questionnaire; and academic achievement, as measured by grade point average.

The study also attempted to evaluate use of non-professionals in a residence hall counseling program through comparison of effects of reinforcement counseling in terms of counselor variables, including attitude to different counseling techniques and basic need patterns, and counselee variables, including initial study behavior, major field, and sex.

The study tested the following research hypotheses:

1. Reinforcement counseling is effective in improving students' study behavior. Predictions derived from this hypotheses were as follows:

Prediction 1. Ss in reinforcement counseling groups (CR and R) will score higher on study behavior criterion test than Ss in control groups (P and C).

Prediction 2. Ss in specific cue-reinforcement groups (CR) will score higher on study behavior criterion test than Ss in general cue-reinforcement groups (R).

Prediction 3. Volunteer Ss in reinforcement groups (CR and R) will score higher on criterion tests than non-volunteer Ss.

Prediction 4. Ss in reinforcement counseling groups (CR and R) will score higher on study behavior criterion tests in follow-up testing than Ss in control groups (P and C).

2. Reinforcement counseling is effective in fostering favorable attitudes to college success and study. Predictions derived from this hypotheses were:

Prediction 5. Ss in reinforcement counseling groups (CR and R) will have more favorable attitudes to college success

following treatment than Ss who have not had reinforcement counseling.

Prediction 6. Ss in reinforcement counseling groups (CR and R) will have more favorable attitudes to study following treatment than Ss who have not had reinforcement counseling.

3. Reinforcement counseling is effective in increasing academic achievement of college students. Prediction derived from this hypothesis was:

Prediction 7. Ss in reinforcement counseling groups (CR and R) will have higher GPA following treatment than Ss in control groups (P and C).

In addition to the three major hypotheses of the study, data were gathered relevant to evaluation of using non-professionals in a residence hall counseling program. The study attempted to gather information pertaining to the following questions:

Are there definable basic need patterns which identify effective counselors?

Are student ratings effective criteria for selecting non-professional student-advisors?

II. Method

A. Experimental Design

This study attempted to test effects of reinforcement counseling on students' study behavior, attitude to college success and study, and academic achievement. In this investigation study behavior was limited to verbal behavior in which verbal responses were used as indices for inferring that study behavior activities on the part of Ss had occurred in the past, was occurring at the time, or was planned as a future occurrence. Attitudes to college success and study were inferred from responses indicating predisposition to use effective study behaviors or to improve scholastic performance. Academic achievement was inferred from performance in coursework as measured by students' grade point average. Reinforcement counseling was the primary independent variable in the study.

A pretest-posttest control group design was implemented, including active and inactive control groups with Ss assigned randomly

to treatment condition. In testing major hypotheses covariance techniques were used to test for significant differences on criterion measures between control and experimental treatments. Control over sex, major field, and residence of S was achieved through statistical techniques, and control over Hawthorne effect was achieved through use of placebo groups. Control over counselor influence was achieved through use of a counterbalanced design with three replications over the three quarter sequence of the academic year, with counselors initially assigned to replication 1, 2, or 3.(Table 1).

Table 1. Treatment replication over three quarters.

Counselor Replication	Quarter		
	Fall	Winter	Spring
1	CR	R	P
2	R	P	CR
3	P	CR	R

Control over counselor attitude to counseling technique and practice effects was implemented through analysis of variance techniques.

B. Subjects

The population for the study consisted of students living in university residences who volunteered to participate in a Special Study Project for the purpose of improving study habits and increasing academic achievement. In each residence student advisors circulated Participant Agreement forms (Appendix A) on which students desiring to participate in the program indicated their intentions to improve study behavior. In signing the agreement form students made a contract with the project administration, agreeing to participate in one thirty-minute group session for seven consecutive weeks and acknowledging the aim to improve study behavior and increase GPA.

Over 1500 students signed the agreement forms. From the pool of names, 928 students randomly selected made up the sample. Randomization was stratified by residence hall and quarter. Assignment of Ss to treatment conditions is shown in Table 2, Appendix B. Description of the sample by sex, major field, grade, and residence is given in Appendix C, Tables 3 and 4.

During winter quarter eleven students who were non-volunteers were assigned to cue-reinforcement groups, and data from these

Ss were used to indicate effectiveness of reinforcement counseling with non-volunteer Ss.

C. Non-professional Counselors

The regularly assigned resident assistants in 12 university residences implemented the counseling treatment in this investigation. It was assumed that counselor differences would be controlled to some extent by virtue of the fact that the university follows a prescribed selection policy in hiring students for resident hall assistantships. Basic criteria include demonstrated leadership qualities, scholarship, and personal characteristics relevant to student-to-student advising.

A total of 68 resident assistants participated in the project, including 43 who were group leaders for three consecutive quarters. Assignment of resident assistants to counseling treatments for all, winter, and spring terms is described in Appendix D, Table 5.

D. Training Program

Intensive pre-service and in-service training of resident assistants who implemented the counseling role was conducted. Pre-service training the week before registration for fall quarter was carried out under direction of the project director and program assistants. Didactic instruction, demonstration, reading, role playing, and tape recordings of pilot sessions provided the basis for seminar sessions prior to the onset of the project. Resident assistants were trained in reinforcement counseling rationale and techniques. Resident assistants who were introduced to the project winter or spring term were given the same intensive pre-service training.

Inservice training was carried on throughout the year under direction of program assistants. Weekly conferences were held with resident assistants during their first term, with monthly sessions during subsequent terms. Project director supervised and directed the in-service seminar held with all resident assistants at the beginning of winter and spring terms.

E. Program Materials

Three counselor's packets, one for each technique, were tested and experimentally validated during the pilot project. Packets were distributed to resident assistants at the beginning of each quarter, according to the appropriate technique. Packet materials were designed to serve a dual purpose, to provide control over counseling

techniques and to reinforce the training program. Packets were intended to be self-contained units, including all essential materials for use by the resident assistants implementing the group counseling program.

The three packets prepared for this study were developed for specific cue-reinforcement technique (CR), general cue-reinforcement technique (R), and placebo groups, (P). All packets contained general background information to reinforce the pre-service training lectures; participant agreement forms; reminder letters to be sent by resident assistant to participants reminding them of the weekly sessions and reinforcing attendance; detailed instructions for the counseling technique to be used; tape-recorder instructions and attendance records; and special instructions for each session. The guides for the individual sessions included information on opening the counseling session, using the appropriate counseling technique for the 20-minute counseling period, and closing the session.

Materials in all packets were exactly the same with the exception of the general counseling instructions and specific session counseling guides. General directions for specific cue-reinforcement counseling are given in Appendix A-21, for general cue-reinforcement counseling in Appendix A-44, and for placebo group counseling in Appendix A-52. In specific cue-reinforcement counseling specific cue-questions were used to guide and direct the discussion. These are included in Appendixes A-25 to 41. The general cue questions and specific instructions for counseling sessions in (R) treatment are given in Appendixes A-44 to 51. The instructions for placebo group counseling and specific instructions for counseling session are given in Appendixes A-52 and 53. The complete CR packet is included in Appendixes A-1 to 43. The basic reading pamphlet used for placebo groups in session 2, Planning Schedules, is given in Appendixes A-54 to 58. Similar pamphlets were prepared for the other sessions.

F. Treatments

During each replication seven group counseling sessions were held. Each counseling group consisted of four Ss and the resident assistant implementing the counseling role. The first session was held the second week of each quarter. The pretesting and organizing of groups were done during the first week. Each of the seven sessions focused on a selected topic relating to use of good study habits, such as "Planning Schedules," or "Taking Notes," (Appendix A). The sessions were tape-recorded to permit monitoring of sessions

and code analysis. The sessions were semi-structured and were divided arbitrarily into three periods: opening, 3 to 5 minutes in which counselor established relationship and defined topic for the session; counseling, 20 minutes, in which counselor implemented technique assigned; and closing 3 to 5 minutes, in which counselor called for summary of the session and implemented termination techniques.

During the 20-minute counseling interval in each session counselor implemented appropriate techniques according to assigned treatment, specific cue-reinforcement (CR), general cue-reinforcement (R), or placebo (P). It was assumed that in all sessions involving all treatments opening and closing intervals would be constant. It was assumed, further, that in all sessions counselor would demonstrate positive regard for the group members, show warmth and empathy, be understanding and accepting.

The four treatments which were compared in this investigation were as follows:

1. Specific cue-reinforcement (CR). During the counseling interval group leader gave specific cues (Appendixes A-21, A-25-41) and reinforced verbally selected responses of participants. Cues were leading questions to guide and direct responses of participants, such as, "What do you think about planning time for relaxation and rest?" Reinforcers were verbal responses such as "Good idea," "That sounds like a good point," "Hm-mmm," "You find that setting aside a certain time for study each day is a good idea." Typescript of specific cue-reinforcement (CR) session is given in Appendix E.

2. General cue-reinforcement (R). This treatment was like the specific cue-reinforcement (CR) treatment with the exception of the nature of cues used. In general cue-reinforcement (R) counseling during the counseling interval; the group leader gave general cues, instead of specific ones, to guide and direct participant responses (Appendixes 44-51) and reinforced verbally selected responses of group members referring to use of good study habits. Cues were leading questions such as, "What do you think about planning schedules?" "Any idea?" Verbal reinforcers were the same as those used in the CR treatment, and in general were defined as any response by the counselor which showed approval and encouragement for the participant's responses. In both CR and R treatments the group leader tried consistently to support any verbal behavior of group members referring to good study habits, including references to past performance, ideas suggested by others, intentions to try out study techniques. The sessions were intended to be free from threat and leaders were

prepared to conduct sessions in non-mechanized fashion, being free to speak in the college vernacular and to participate with the members in the thinking about good study habits. In both CR and R treatments, counselors used a prepared guide to effective study summarizing generally accepted effective study techniques as a basis for defining "good study habits." In instances when a group member referred to a technique which would not generally be accepted as a good study habit, leader made no response other than to redirect the discussion.

3. Placebo counseling (P). The placebo groups were designed as active controls. In these groups planned cueing and reinforcement were not used by the group leader. The resident assistants were not aware that this was a control treatment. Placebo groups were intended to replicate the approach most generally used in effective study programs. It was assumed that counselors in these groups would show the same warmth, empathy, and understanding for group members as in the reinforcement groups. Opening and closing of sessions were the same as in the reinforcement sessions. After the opening period, the resident assistant distributed individual copies of three-to-five page mimeographed pamphlets (Appendixes A-54 to 58) on the topic for the current weekly session. Members were asked to read the materials, following which pamphlets were collected and group members discussed what they had read (Appendixes A-52 and 53).

4. Inactive control (C). Ss assigned to inactive control did not participate in group sessions. Pre and post criterion tests were administered to control Ss.

G. Evaluation, Data-gathering, and Data Treatment

Data were gathered to determine the extent to which primary objectives were achieved, to test the research hypotheses, and to answer secondary research questions.

1. To determine the effects of reinforcement counseling on students' study behavior (Hypothesis 1) the Brown Holtzman Survey of Study Habits and Attitudes was administered as a pretest and the Study Habits Inventory (Appendix F) was administered as a posttest. The Brown Holtzman SSHA, designed as an instrument to provide an inventory of student's study habits and attitudes, has an internal consistency coefficient, split third, of .92 for men and .84 for women, with mtest-retest coefficient of .95 for men and .93 for women (Brown and Holtzman, 1956). The Study Habits Inventory (SHI) (Appendix F), administered as posttreatment criterion test, was

developed during the 1964-65 pilot project, with reliability coefficient on test-rest of .88 to .92. Instrument development, standardization, reliability and validity, and norms are described in Appendix G. Percentiles corresponding to raw scores for the Study Habits Inventory are given in Appendix H.

Mean scores on pretreatment Brown Holtzman SSHA and posttreatment Study Habits Inventory were computed by treatment. Lease squares analysis of variance was performed on these data taking into account for initial differences. Data on Ss' sex, major, and counselor were gathered to permit description of sample and make possible comparisons of scores on criterion tests by treatment with selected variables controlled. To determine influence of counselor's attitude to technique used, counselors were asked to give preferential ratings to the three techniques. Ratings were correlated with mean group scores on the study behavior criterion test. To control for practice effects, mean group scores on the study behavior criterion tests were correlated with amount of practice. These data involving statistical treatment of criterion scores for study behavior permitted testing Predictions 1 and 2.

2. To determine effects of reinforcement counseling on non-volunteer students (Hypothesis 1, Prediction 3), data were gathered on 11 students on academic probation at the end of fall term who were referred to the project by the Head Advisor of the School of Education. Scores on the study behavior criterion tests and pre-and post-treatment GPA were gathered.

3. A six-month follow-up was made of 160 Ss, 40 randomly selected from each of the four treatments, to determine differences in study behavior over time. The criterion test for study behavior was administered to the Ss at three-month and six-month intervals following post-treatment administration of Study Habits Inventory. Means were computed and analysis of variance performed on the data to test Prediction 4 of Hypothesis 1.

4. To determine effects of reinforcement counseling on students' attitudes to college success and study (Hypothesis 2), a open-ended questionnaire was administered as a post-treatment criterion test. The instrument, Project Evaluation (Appendix I), was designed to elicit responses from students to indicate their attitudes toward college success and study. Students participating in reinforcement and placebo groups completed the inventory following the last counseling session. Comparison was made between responses of Ss in reinforcement and active control groups, to the question, "In what ways

has the Special Study Project been of value to you?" Answers to the question were coded and categorized as follows: intends to improve scholastically; feels better adjusted to college; has greater motivation for doing well; intends to organize studies; has met new friends; has no incentive to do well. Reliability of categorizing of code units was accomplished following Guetzkow (1950) in which proportion of units upon which coders agreed was used to estimate accuracy of categorizing, with number of units for establishing categorizing reliability set at 150, on the assumption that it is not necessary to have more than 150 units of qualitative material classified by two coders to obtain stable estimates of probability with which each unit is classified correctly since lower limits of values of theoretical proportion of agreement tend to level after $N = 150$. Reliability of categorizing, determined by coding responses in six categories, computed by determining ratio of number of actual agreements to possible agreements, was found to be .94. Comparison of responses was made by treatments to provide data relevant to Prediction 5.

Responses to the question, "Did you enjoy working on the Special Study Project?" were used as indices of students' attitude to study. Responses were categorized as Yes, No, Somewhat, and reliability ($r = .97$) of categorizing was established. Responses were compared by treatment to provide data relevant to Prediction 6.

In addition to the two questions aimed at gathering data relevant to Hypothesis 2, effects of reinforcement counseling on students' attitude to college success and study, the Project Evaluation contained a question concerning Ss' reaction to group leader, a question to determine awareness of response-reinforcement contingency, and four buffer questions.

5. To determine effects of reinforcement counseling on academic achievement (Hypothesis 3), Ss' pre-treatment accumulative grade point average, and post-treatment term GPA were gathered. Initial GPA for freshmen students was determined by using accumulative high school GPA, converted to equivalent college GPA. Conversion was made using formulas derived from prior institutional study indicating a differential of .85 between high school accumulative GPA and equivalent college GPA. Means were computed by treatment and subjected to least squares variance analysis to account for initial differences in testing Prediction 7.

In addition to testing the three major hypotheses and the seven predictions derived from the hypotheses, data were gathered relating to secondary research questions as follows:

1. To determine the extent to which basic need patterns of effective counselors could be defined, the Edwards Personal Preference Schedule was administered to all resident assistants implementing counseling roles in the project. These data were gathered to permit correlation with mean scores on the study behavior criterion test for counseling groups.

2. To determine extent to which student ratings would be viable for selection criteria for resident assistants, student ratings of counselor effectiveness were gathered and these data were correlated with mean scores on the study behavior criterion test. Correlation was computed to determine congruence between participant's perception of counselor effectiveness and counseling effectiveness as determined by attainment of counseling goals.

All sessions were tape-recorded. A typescript of a counseling session is given in Appendix E. All tapes were monitored to permit analysis of counseling techniques and determine extent to which technique implemented by resident assistant corresponded with assigned technique. Reliability of tape coding was established by comparing 12 tapes, coded by two independent coders. Inter-coder reliability of .88 was found. Results of coding tapes revealed agreement of 64 percent between technique used and technique assigned for CR and R groups, and 47 percent for P groups. In the case of CR and R groups, there was confounding of cueing and failure to reinforce at optimum level (80 percent of reinforceable responses). In the case of P groups, over half the counselors used some reinforcement for good study habit responses of participants.

Observation was made of 21 randomly selected sessions, seven for each technique, by independent observers. Observation checklists, completed at the end of each observation, provided data on counseling technique and timing. Data revealed 61 percent agreement on technique and 92 percent agreement on timing of session.

III. Results

A. Description of Institutional Setting, Counseling Setting, Sample, and Resident Assistants

1. Institutional Setting. Generalizing results from a research investigation requires consideration of the research setting and sample. This study of residence hall counseling, with resident assistants implementing role of non-professional counselors, was conducted at Oregon State University, a land-grant institution with a

total student enrollment of approximately 12,500. The extent to which findings from the study will generalize to other institutions of higher education is limited by the degree of comparability between institutional settings.

The city of Corvallis, in which Oregon State University is located, has a population of about 29,000 including student enrollment. The university, one of the institutions of the State System of Higher Education, dates from 1868 when it was designated the agricultural college for the State of Oregon. The curriculum, reflecting the influence of the land-grant act, has continued to stress programs on science, engineering, business and technology. The five largest schools in terms of 1965-66 enrollment were Science, Engineering, Education, Humanities, and Business and Technology, respectively.

At Oregon State University students live in university residences, cooperatives, sororities, fraternities, and off-campus housing. This study was limited to students in university residences. At the time of the study approximately 4,000 students were housed in 12 university residences. All of the halls were staffed by members of the Student Services staff, with head residents and assistant head residents responsible for the total operation of each hall, and resident assistants acting as advisors to individual living groups. Resident assistants were upperclass or graduate students. Living groups consisted of students residing on a single floor in a designated area, typically in one of the wings. Residence hall characteristics are described in Appendix J, Table 6.

2. Counseling Setting. The counseling sessions were held in late afternoon or evening in the resident assistant's room in the residence hall. Each counseling group consisted of four students of the same sex and the resident assistant, also of the same sex. No attempt was made to structure group composition in terms of grade level of GPA of participants. It was assumed that groups would be relatively comparable as a function of random assignment of Ss to groups.

Attendance records (Appendix A-24) for the groups were maintained, indicating comparable attendance across groups. Absenteeism was negligible. Attendance records suggested that control over amount of counseling time was maintained.

3. Sample. With the exception of 11 non-volunteer students who were referrals from the Head Advisor in the School of Education winter quarter, all Ss in the study volunteered to participate in the

project and stated at the outset that they desired to improve their study habits and scholastic performance. The description of the sample by age, sex, grade level, major field, and residence is given in Appendix C.

4. Resident Assistants. Of the 68 resident assistants who participated in the study, 35 were male and 33 were female. The mean age of the males was 21.38, with range from 18 to 25 years. The mean age of the females was 20.38, with range from 19 to 25 years (Appendix K-1). Resident assistants were from the nine major fields of the university. Distribution by sex and major field is shown in Appendix K-2, Table 8.

Comparison of grade level of resident assistants by sex revealed that males were predominantly seniors, whereas there were more juniors among females. There were three male and two female resident assistants who were lower division students. These students were older than the average undergraduate. The distribution by grade level and sex of resident assistant is shown in Appendix K-3, Table 9.

B. Pre-treatment Study Behavior and Scholastic Performance.

The Brown Holtzman Survey of Study Habits and Attitudes was administered to all Ss the first week of each quarter, prior to onset of treatment to determine initial differences among treatment groups in their study behavior. Results are reported in Table 10.

Table 10. Pre-treatment study behavior of Ss in four treatment groups as measured by Brown Holtzman SSHA.

	Treatment			
	Specific Cue Reinforcement N = 232	General Cue Reinforcement N = 232	Active Control N = 232	Inactive Control N = 232
Mean Raw Score	30.733	30.762	29.737	34.397

As can be seen from Table 10, Ss in reinforcement and active control groups were relatively homogeneous with respect to their study habits before participation in the treatment groups; whereas Ss assigned to inactive control demonstrated higher level of study behavior at the outset. Adjustment for initial differences was made through least squares variance analysis in treating data from the criterion tests.

Accumulative GPA taken at the close of the quarter preceding assignment of Ss to treatment was used as a measure of pre-treatment scholastic performance. For fall term freshmen accumulative high school GPA, adjusted to equivalent college GPA, was used as pre-treatment index of scholastic performance. Table 11 reports the mean GPA for the four treatment groups prior to treatment.

Table 11. Pre-treatment GPA of Ss in four treatment groups.

	Specific Cue Reinforcement N = 232	General Cue Reinforcement N = 232	Active Control N = 232	Inactive Control N = 232
Pre-treatment Mean Accumula- tive GPA	2.039	2.066	2.191	2.429

Inspection of Table 11 indicates that the reinforcement and active control groups were relatively homogeneous in scholastic performance before participation in the project; whereas the Ss in inactive control had a higher mean GPA at the outset.

C. Results of Criterion Tests

Major computations comprising analysis of data from criterion tests included analyses of variance to test the effects of planned reinforcement counseling on students' study behavior and academic achievement; and determining correlation coefficients to describe associations between variables.

1. Testing Effects of Planned Reinforcement Counseling on Study Behavior. To test effects of planned reinforcement counseling with small groups of college students on students' study behavior, four treatment conditions were compared: (CR) specific cue-reinforcement, in which counselor gave specific cues and reinforced participant good study behavior responses; (R) general cue-reinforcement, in which counselor gave general cues and reinforced good study behavior responses; (P) placebo groups, constituting active controls, in which counselor withheld cueing and reinforcers; and (C), active controls, in which students did not participate in group counseling sessions. The criterion test for study behavior was the Study Habits Inventory (SHI), administered to Ss in the four treatments as a post-test to measure use of effective study behavior. Scores on the inventory for Ss in each of the four treatment conditions were summed and means computed. Mean scores on the Study Habits Inventory, post-treatment criterion test for study behavior, for the four treatments

are shown in Table 12.

Table 12. Mean scores on Study Habits Inventory for four treatment groups.

	Treatment			
	Specific Cue Reinforcement N = 232	General Cue Reinforcement N = 232	Active Control N = 232	Inactive Control N = 232
Mean Study Habits Inventory Scores	194.9	194.6	175.4	173.9

a. Control for Ss' Initial Differences, Sex, and Major Field. In analyzing data relevant to comparison of mean scores on the criterion test for use of effective study behavior, it appeared that one source of variation among groups would include initial study behavior differences.

In addition to differences in initial study behavior, it appeared that other sources of variation among groups on the criterion would include sex and major field of S, and differential counselor effects. In controlling for S sex and major field, mean scores on the criterion test were computed for these variables to permit statistical control. The mean scores for treatment groups by sex and major field are reported in Appendix L-1, Table 13. Treatment means, reported in Table 12, clearly point to treatment differences between experimental and control groups. The means for sex were 178.4 and 191.0 for male and female Ss, respectively. Mean scores by major field ranges from 179.5 to 193.6.

Taking into account unequal cell frequencies and to control for initial differences, least squares analysis of variance was performed on the data. The variance analysis, reported in Appendix L-2, Table 14, revealed significant main effects for sex and treatment at the .001 level. Main effects for major and interactions were not significant. Individual comparisons between treatments revealed no differences between the two reinforcement groups and no differences between the two control groups. Differences between reinforcement and control treatments were significant at .001 level.

These findings support Prediction 1, that Ss under reinforcement counseling would score higher than Ss in control groups. The findings do not support Prediction 2, that specific cue reinforcement counseling would be more effective than general cue

reinforcement counseling.

b. Control for Counselor Differences, Attitude, and Practice. It was assumed that differences between treatments on the criterion tests would include variance associated with counselor effects. Therefore, adjusted mean Study Habits Inventory scores and adjusted post-treatment GPA were computed by treatment group and counselor for reinforcement and active control groups. (Appendix L-3, Table 15), based on data from 43 counselors who participated in the project for three consecutive quarters. Mean scores for counselor, based on 12 participant scores, ranged from 171.50 to 206.34. Mean post-treatment GPA, derived on data from forth three counselors, ranged from 1.82 to 2.54. Analysis of covariance performed on the data (Appendix L-4, Table 16) reveals significant main effects for treatments for both of the criterion variables. Main counselor effects and counselor X treatment interaction failed to reach levels of statistical significance.

To determine the extent to which attitude of resident assistants to counseling technique used influenced his counseling effectiveness, resident assistants were required to make a forced preferential rating of the three counseling techniques. Ratings were correlated with mean Study Habits Inventory scores for groups in the three counseling treatments. For counseling groups of the 43 resident assistants who participated for three consecutive terms correlation between mean group SHI and resident assistants' rating of counseling technique was found to be $r = .002$ (NS).

To determine practice effects on resident assistant counseling effectiveness, a counterbalanced design was implemented as a control and a correlation was made between group SHI scores and amount of practice of resident assistant. A correlation between group SHI score and amount of counseling practice, 1, 2, or 3 quarters, was found to be $r = -.062$, which was not significantly different from zero correlation.

Mean participant group SHI scores were computed by sex of counselor to determine differences between male and female resident assistants. For the 43 resident assistants who participated for three consecutive quarters, including 21 males and 22 females, mean group SHI scores were found to be 183.70 and 194.33 for males and females, respectively. Analysis of variance performed on these data revealed an F-ratio of 27.00, significant at the .001 level.

Results from the variance analyses, controlling for

variance associated with Ss' sex and major field and counselor influence, clearly support the hypothesis that planned reinforcement counseling is effective in improving students' study behavior. The data confirmed prediction 1, that Ss in reinforcement counseling groups (CR and R) would score higher on criterion test for use of effective study behavior than Ss in control groups (P and C).

Comparison of means for CR and R groups failed to yield a significant ratio. The data did not confirm Prediction 2, that specific cue-reinforcement (CR) groups would score higher on the criterion test for effective study behavior than general cue-reinforcement (R) groups.

c. Control Over Ss' Motivation. It was expected that motivation would have limiting influence on effects of reinforcement counseling to improve Ss' study behavior. Therefore a test was made involving non-volunteer students, assuming that they would not be as highly motivated to achieve scholastic success and to improve in study habits as the volunteer students who stated at the outset that they wanted to achieve these goals. Eleven non-volunteer students participated in specific cue-reinforcement (CR) and general cue-reinforcement (R) groups during winter quarter. These students, all on academic probation, were referred by the Head Advisor of the School of Education. Pre-treatment Brown Holtzman SSHA scores, post-treatment SHI scores, and GPA for pre-treatment quarter, post-treatment quarter, and change in GPA are reported in Appendix L-5. The sample was not sufficiently large to permit generalizing from the data. It may be observed, however, that mean Brown-Holtzman SSHA pre-test score of 28.45 compared to a mean of 30.74 for volunteer Ss; the mean Study Habits Inventory Score of 208.27 for non-volunteer Ss compared to mean of 200.09 for volunteer Ss in the reinforcement groups. Results from GPA reveal that of the 11 non-volunteers only one failed to increase in GPA at the end of the treatment quarter. Change in GPA ranged from -.27 to +1.10, with median change of +.60. For the ten students who improved in GPA, the change ranged from +.21 to +1.10, with mean change of +.699. These data neither confirmed nor failed to confirm Prediction 3, that volunteer Ss, receiving reinforcement counseling would score higher on criterion tests than non-volunteer Ss.

d. Control Over Hawthorne Effect. Placebo groups were used in this study to control for Hawthorne effect. Significant differences were found between experimental treatments (CR and R) and placebo groups (P). The placebo groups, however, showed a higher mean score on the criterion tests than the inactive controls.

Inspection of means for the four treatments, CR, R, P, and C reveals a linear relationship indicating influence of Hawthorne effect on Ss in the active control (P) groups. However, in all instances experimental reinforcement groups were significantly superior to placebo groups (P) on criterion tests for study behavior. This is demonstrated in Appendix L-7 showing results of post-treatment criterion tests and follow-up tests for the four treatment conditions.

2. Testing Long-term Effects of Planned Reinforcement Counseling. To determine long-term effects of reinforcement counseling on study behavior, the Study Habits Inventory was administered to 160 Ss, 40 randomly selected from each of the four treatments, at three-month and six-month intervals following treatment. The mean scores for the four treatment groups were computed for post-treatment, three-month, six-month testing. These data, reported in Appendix L-6, indicate that over the six-month time period the mean scores on the criterion test increased from 181 to 201 for specific cue-reinforcement; increased from 182 to 202 for general cue-reinforcement; remained constant at 184 for placebo groups; and decreased from 184 to 173 for inactive control Ss. Analysis of variance performed on these data using pseudo three-way classification to allow for replication on same individuals within blocks with different Ss in each block (Model XVII, McNemar, 1962) revealed a significant F-ratio at the .001 level for time X treatment interaction and main treatment effects, with significant F ratio at the .01 level for main time effects. The significant interaction may be observed by inspecting Appendix L-6. These data support the hypothesis that behavior modification from planned reinforcement counseling generalizes over time. Results confirmed Prediction 4, that Ss in reinforcement counseling treatment groups would have higher scores on tests of use of effective study behavior on follow-up criterion tests than Ss in control groups.

3. Results From Criterion Tests of Attitudes to College and Study. Following treatment Ss who participated in reinforcement and placebo counseling groups completed a Project Evaluation. Two of the questions on the instrument were intended to elicit responses relative to Ss' attitudes to college success and study.

a. Responses to the question, "How was the Special Study Project of value to you?" were subjected to content analysis. It was assumed that responses would indicate predisposition to succeed in college work. A random sample of responses from the three treatment groups, CR, R, and P, is shown in Appendix M-1. Results, reported in Appendix M-2, indicate no differences in treatment groups

in responses classes. The data did not support Prediction 5, that students in reinforcement counseling groups would develop more favorable attitudes to college success than students in control treatment.

b. Responses to the question, "Did you enjoy working on the Special Study Project?" were coded and tabulated. It was assumed that responses to this question would indicate predisposition to study. Inspection of response frequencies, reported in Appendix M-3, indicates no differences between reinforcement and placebo groups in degree of enjoyment from participating in the counseling groups. The data did not support Prediction 6, that students in reinforcement counseling groups would develop more favorable attitudes to study than students in control groups.

The data did not support the hypothesis that reinforcement counseling would be effective in developing favorable attitudes to college success and study.

4. Results From Criterion Measures of Scholastic Performance. Students' GPA was used as the criterion of scholastic performance. Mean GPA for the term in which Ss were assigned to one of the four treatment conditions was computed for the treatment conditions. These data are shown in Table 21.

Table 21. Post-treatment mean GPA for Ss in four treatment groups.

	Treatment			
	Specific Cue	General Cue	Active	Inactive
	Reinforcement	Reinforcement	Control	Control
	N = 232	N = 232	N = 232	N = 232
Post-treatment Adjusted Mean GPA	2.31	2.21	2.16	2.46

The mean GPA reported for the four treatment groups in Table 21 was adjusted for initial differences, shown in Table II, in the variance analysis. Pre-treatment and post-treatment mean GPA for sex, major field, and treatment are reported in Appendix N-1, Table 22.

To take into account unequal cell frequencies and to adjust for initial differences, least squares analysis of variance was performed on the data. The variance analysis (Appendix N-2, Table 23, revealed significant main effects for treatment ($p. < 001$) and sex ($p. < 05$). The interactions and main effects for major field were not

significant.

Inspection of means reported in Table 21 indicates that both reinforcement groups, starting with initial GPA of 2.03 and 2.06 increased in GPA to 2.31 and 2.21 on the post-treatment measure. Compared to this, the two control groups tended to remain at approximately the same level, starting with 2.19 and 2.42 GPA for the active and inactive control groups, respectively and having 2.16 and 2.46 on post-treatment GPA.

Individual comparisons between treatments revealed no differences between the two reinforcement groups and no differences between the two control groups. Significant differences were found between reinforcement and control treatments.

These data confirm Prediction 7 that Ss under reinforcement counseling would have higher post-treatment GPA than Ss in control groups.

5. Awareness. An attempt was made to determine extent to which Ss awareness was a significant variable related to the criterion. In the Project Evaluation which Ss completed following the last counseling session, a question was included to determine if Ss were aware of the response-reinforcement contingency. Awareness was defined as the degree of the S's recognition of an explicit relationship between his response and counselor reinforcement. Operationally the S was considered to have positive awareness if he could verbalize the S response-E reinforcement relationship. Tabulation of responses to the item revealed that none of the Ss verbalized recognition of the response-reinforcement contingency.

6. Evaluation of Residence Hall Counseling Program Using Non-professional Student-Counselors. To answer questions concerning use of non-professionals in a residence hall counseling program, an attempt was made to determine basic need patterns of resident assistants which identify effective counselors; and association between counseling effectiveness and ratings of counselors by group participants.

a. Resident Assistants' Basic Need Patterns. To gather data on basic need patterns, the Edwards Personal Preference Schedule was administered to all resident assistants implementing the counseling role. Tabulation of consistency scores on the Edwards test revealed that 22 of the 68 resident assistants had raw scores of 10 or less. Edwards (1959) states that "If a subject obtains a low

consistency score, say less than nine his scores on the 15 personality variables may be questioned....If the consistency score is 11 or higher, we may regard this as evidence that the subject is not making his choices on the basis of chance alone." In view of these qualifications regarding use of scores on personality variables, data from Edwards Personal Preference Schedule were not used in this study.

b. Participant Ratings of Counselor Effectiveness.

All participants in counseling groups rated their group leader in terms of counselor effectiveness. The ratings on a 4-point scale, were correlated with counseling effectiveness as measured by mean group SHI scores of participants to determine degree of congruence between clients' perception of counselor effectiveness and counseling effectiveness as measured by achievement of counseling goals. The correlation coefficient, $r = .138$, between client rating and mean Study Habits Inventory score for the counseling group was not significantly different from zero correlation.

IV. Discussion

A. Effect of Reinforcement Counseling on Study Behavior

The results from this study offer support for two of the four predictions drawn from the general hypothesis that improvement in Ss' study behavior is related to use of planned reinforcement counseling. Clear support of the prediction (1) that Ss who had participated in reinforcement counseling groups would improve significantly more than Ss in control groups, is emphasized further in light of the findings that other variables assumed to be associated with study behavior failed to qualify the major finding of differences between experimental and control treatments. As a result of implementing controls for sex and major field of subject, it was demonstrated clearly that despite differences which obtained between male and female subject, and among the nine major fields, in all instances the mean scores of Ss in reinforcement groups were higher than those of Ss in control groups.

The same finding held true when counselor effects were controlled, again demonstrating clearly the viability of reinforcement counseling as a technique for improving study behavior of college students. In controlling for counselor effects it was found that there were differences between female and male counselors. This is interpreted in light of the differences obtaining between male and female Ss. Since groups were composed of counselor and participants of the same sex, it is suggested that the findings of differences between male and

female counselors should not be taken to indicate superiority of female counselors, but rather as a reflection of the sex differences in study behavior between male and female students as indicated clearly by pretest mean scores in favor of female students.

Differences found between counselors in the variance analysis, though failing to reach statistical significance, indicate individual differences. It is suggested that to some extent the counselor differences may indicate a possibility of greater precision in screening and selection of resident assistants to implement a residence hall counseling program.

The findings from analysis of practice effects, involving correlation of group scores on criterion test with amount of counseling practice with resultant r of $-.062$ which was not significantly different from zero correlation, suggests that the counterbalanced design for controlling counselor practice effects was viable. Since counselors used a new technique each quarter and since Ss assigned to counseling groups were naive, and assumed to have been drawn from the same population, it was not anticipated that practice would be a relevant variable in this investigation. It is suggested that under conditions in which the counselor used the same technique for three successive quarters, and/or had the same subjects for three consecutive quarters practice effects might obtain.

The finding that the attitude of the counselor to the counseling technique was not significantly correlated with counseling effectiveness ($r = .002$) appears to hold critical implications for development and implementation of counselor training programs. This finding clearly points to the potential for training students and/or non-professionals to implement counseling techniques, regardless of their predisposition to the technique. Data from this study point out that even though counselors "felt more comfortable" or "preferred to use" the placebo technique, in which the counselor's main function was to provide support and create a non-threatening environment, in terms of criterion tests they were more effective when using the reinforcement techniques.

The prediction of generalizability of modification of study behavior over time was supported by the significant F-ratio for treatment effects in the follow-up study. It is suggested that this finding is of particular importance, in that it documents the long-term effects of reinforcement counseling. Most of the data which have been reported thus far pointing to effectiveness of behavioral counseling have been based on immediate criterion tests. This finding has research

implications as well as relevance for student personnel program development. The follow-up in this investigation was limited to a six-month period. It is suggested that data are needed to establish the critical points at which the behavior levels off and/or starts to decline. If these data were established, programming then could be developed to provide reinforcement at the points in time when it would be most efficient. Data are needed to indicate the time over which effects of one-quarter or one-semester reinforcement counseling can be expected to obtain.

It is suggested that failure to support the prediction (2) that specific cueing (CR) would be more effective than general cueing (R) in improving Ss' study behavior in large measure is a function of confounding of the two reinforcement treatments, rather than lack of differential effects between the cueing patterns. In the analysis of counseling session tapes, it was found that in one-third of the CR and R session (35%) there was confounding of specific and general cueing. It is suggested that there was more likelihood for contamination of cueing in replication 1 (CR, R, P) and replication 3 (P, CR, R) because of the similarity between the two techniques and the greater possibility of carryover effects from one to the other.

No attempt was made to determine if the prediction (3) concerning superiority of volunteer over non-volunteer Ss in improvement of study behavior was supported. The non-volunteer sample was so small ($N = 11$) that any conclusions drawn would have to be tentative. Nevertheless, the results obtained suggested that motivation is not as significant a variable as had been expected. Further, there is indication that non-volunteer students, with scholastic deficiencies sufficient to warrant probation or suspension, can benefit from planned reinforcement counseling. The non-volunteer data derived from this investigation point to the need for further research in this area, and the possibility of special remedial programs which might be implemented by student personnel staffs to help these students realize their potential.

Results of the awareness test, which indicated that none of the Ss was able to verbalize recognition of the response-reinforcement contingency, indicate that awareness was not a relevant variable in this study.

B. Effect of Reinforcement Counseling on Attitudes to College Success and Study

The results of this study failed to support either of the two

predictions derived from the general hypothesis that reinforcement counseling would be effective in fostering favorable attitudes to college success and study.

The prediction (5) that Ss in reinforcement counseling groups would develop more favorable attitudes to college than Ss in control groups and the prediction (6) that Ss in reinforcement counseling groups would develop more favorable attitudes to study than Ss in control groups remained unsupported by the data. It is suggested that failure to support these predictions was a function of insufficient data, rather than untenability of the predictions. The data which were compared to test the predictions were derived from reinforcement counseling (CR) and (R) and active control (P) groups. No data were gathered from inactive control Ss (C). It is suggested that the findings indicating that Ss in the three counseling groups CR, R, and P were relatively homogeneous in their attitudes to college success and study, in effect, document the intended control over counseling environment and counselor warmth, empathy, and understanding. It would appear that Ss in all counseling groups developed predispositions to succeed in their college work and to study more effectively. This finding is in line with results reported from study seminars and effective study courses indicating that participants "learn how to study" and "develop favorable attitudes to study."

The discrepancy between attitudinal responses to effective study and behavioral study responses lends further evidence to support viability of reinforcement counseling as a technique to improve study behavior (Prediction 1). The findings from criterion tests of study behavior clearly point to superiority of Ss who participated in reinforcement counseling (CR and R) over those in active control groups (P) despite the homogeneous attitude of Ss across the three treatments, as indicated by reported predispositions to use effective study behavior.

It is suggested that in future research comparison of attitudes of study between Ss in reinforcement groups and those in inactive control groups be made.

C. Effect of Reinforcement Counseling on Scholastic Performance

The results from the study offer support for the prediction drawn from the general hypothesis that improvement in Ss' scholastic performance is associated with reinforcement counseling. Support of the prediction (7) that Ss in reinforcement counseling treatments (CR

and R) would have higher adjusted GPA following treatment than Ss in control groups (P and C) is given by the significant main effects for treatment in the analysis of variance implemented controlling for sex and major field differences.

These findings are in line with results on the criterion test of study behavior. In light of the correlation between study behavior and scholastic performance, the results are expected. It is suggested that continued improvement in scholastic performance would be expected, paralleling the improvement in use of effective study behavior over the six-month follow-up period.

D. Resident Hall Counseling Using Non-professional Student Counselors

The data gathered relevant to the two major questions about resident hall counseling with non-professional staff provide information relevant to selection and screening of students for resident assistantships involving group counseling assignments.

Data relevant to the question of using basic need patterns, as defined by Edwards Personal Preference Schedule in identifying students who might be potentially effective in student-to-student counseling were not considered sufficiently reliable to permit generalizing the findings. Therefore, these data were not treated. It is suggested that the use of an instrument such as the Edwards in selecting resident assistants would not be warranted unless there were assurance of higher consistency scores than obtained in this study.

In relation to the question of using student ratings as bases for selecting resident assistants, data were gathered to determine congruence between counselor's ratings of the counselor effectiveness and counseling effectiveness as determined by criterion tests. It appears from results of this study that clients can feel comfortable in the counseling relationship and have the feeling that the counselor is effective, and yet they may not be realizing their counseling goals. It is suggested that this apparent anomaly may be explained in terms of learning theory which would hold that as a function of frequency of reinforcement, habit strength of subject would be increased. Thus, Ss under reinforcement treatment would come to see achievement of their goals as their own accomplishment, rather than as a result of outside variables, such as the counselor. Lacking reinforcement, the Ss, such as those in placebo groups, perceive the counselor as supportive, warm, understanding, and helpful. However Ss do not develop response potential to implement the counseling goals. They

attribute the attainment of their counseling goals to a counselor rather than seeing this as a function of their own behavior.

V. Conclusions

Previous studies have described programs for improving study behavior of college students. This investigation, implementing learning theory frame of reference, tested experimentally the use of reinforcement counseling in a residence hall setting to improve students' use of effective study habits, foster favorable attitudes to study, and improve academic achievement. Findings from the study support basic assumptions that non-professional student-advisors can implement counseling roles in a planned residence hall counseling program. The study provided data to indicate that reinforcement counseling is a viable technique to use with small groups of college students to modify study behavior.

Results from this investigation supported the hypothesis that students increased their use of effective study habits as a function of planned reinforcement counseling. Two of the four predictions drawn from this hypothesis were supported. Students who received reinforcement counseling scored higher on the criterion test for use of effective study than those who were in active and inactive control groups. Students who received reinforcement counseling continued to increase their use of effective study behavior as indicated by criterion scores on a six-month follow-up, whereas Ss in placebo groups maintained the same level over the six-month period and Ss in inactive control groups decreased in use of effective study. The support given this hypothesis is further emphasized in view of finding that reinforcement counseling groups maintained significantly higher scores on criterion tests compared to control groups, under conditions in which controls were implemented for subject differences in initial study behavior, sex, and major field, and counselor differences, attitudes to study techniques, and practice.

Data from the study did not support the hypothesis that reinforcement counseling would develop favorable attitudes to study and college success. The predictions that Ss in reinforcement groups would develop more favorable attitudes to college success and to study than Ss in control groups was not confirmed. It was suggested that failure to confirm the predictions was a function of criterion testing, rather than untenability of the prediction. Comparisons on criterion tests were made between reinforcement groups and active control groups. It was suggested that future research should be addressed to this question, comparing experimental and inactive controls.

The study yielded data to support the hypothesis that reinforcement counseling would develop improved scholastic performance of college students. The prediction that Ss in reinforcement groups would be higher on the criterion, adjusted GPA than those in control groups was confirmed.

Data gathered relevant to the question of students' ratings of counselor effectiveness indicated lack of congruence between counselee's perception of counselor effectiveness and counseling effectiveness as measured by attainment of counseling goals. The correlation between counselees ratings of resident assistants and Ss' scores on the criterion test was not significantly different from zero. It is concluded that student ratings are not viable as criteria for selecting resident assistants. It is recommended that further research should be conducted to determine the conditions under which this finding holds.

It is strongly recommended that further research be conducted to determine the points in time at which behavior modification, as indicated by criterion tests of study behavior, levels off and begins to decline. It is suggested that these data are needed in order to implement effective and efficient planning of student personnel programs. Student personnel staff need to know at what point effects of reinforcement diminish, thereby enabling them to plan appropriate measures to counteract the impending decline in Ss' use of study behaviors.

This investigation has demonstrated the potential of the residence hall as a learning center, and suggested that use of non-professional student-advisors in a counseling role in a planned program is viable. The study clearly documents viability of planned reinforcement counseling with college students to improve their study behavior. It is recommended that investigation be made of planned reinforcement counseling for modifying response classes other than study behavior and with populations other than college students.

The reinforcement counseling program, tested experimentally in this investigation, can be implemented in a residence hall setting with a minimum of expense and without appreciable investment of professional staff time and direction. With an intensive, though limited, training program and use of counselors' packets developed for this study (Appendix A), student advisors can implement counseling roles and an effective program can be developed to meet the needs of students and at the same time come to grips with the college dropout problem.

VI. Summary

A. Problem

The purposes of this study were (1) to test effects of reinforcement counseling on students' study behavior, attitudes to college success and study, and academic achievement; and (2) to evaluate use of non-professional student-advisors in a planned residence hall counseling program.

The theoretical frame of reference within which the study was developed derived from a set of assumptions in which study behavior was seen as related to academic achievement; and reinforcement counseling techniques implementing learning theory principles were considered potentially viable for modifying study behavior of college-age youth.

B. Objectives

The study tested the following research hypotheses:

Hypothesis 1. Reinforcement counseling is effective in improving students' study behavior.

Hypothesis 2. Reinforcement counseling is effective in fostering students' favorable attitudes to college success and study.

Hypothesis 3. Reinforcement counseling is effective in increasing students academic achievement.

The study also sought to answer two research questions related to evaluation of a residence hall counseling program using non-professional student advisors in counseling roles. (1) Are there definable basic need patterns to identify effective non-professional counselors? (2) Can student ratings be used as a basis for selecting resident assistants for non-professional counseling roles?

C. Methods

The study was conducted in a naturalistic setting. Resident assistants, male and female students, implementing the counseling role in 12 university residences, were given pre-service and in-service training. Counselor packets were used to standardize techniques. Three response classes constituting dependent variables were selected for the study, Ss' use of effective study behavior, attitude to

study and college success, and performance in coursework. Reinforcement counseling was the primary independent variable. The study implemented a pretest-posttest control group design with active and inactive controls and Ss assigned randomly to treatment conditions. In testing major hypotheses analysis of covariance and least squares analysis were used to test for significant differences on criterion measures between control and experimental groups. Control over sex, major field, and residence was achieved through statistical techniques, and control over Hawthorne effect was achieved through use of placebo groups. Control over counselor effects was achieved through a counterbalanced design with three replications and by using statistical techniques to determine variance associated with counselor differences, attitudes to counseling techniques, and practice.

The population for the study consisted of students living in university residences. From the 1,500 students who volunteered to participate in the project to improve study behavior, 928 Ss randomly selected made up the sample. Ss were assigned to four treatments, CR, specific-cue-reinforcement, in which counselor gave specific cues to guide and direct responses, and reinforced verbally favorable study responses of group members; R, general cue-reinforcement, in which counselor gave general cues to guide and direct responses, and reinforced verbally favorable study responses of group members; P, placebo groups designed as active controls, in which counselor withheld cues and reinforcers for favorable study responses; and C, inactive controls, students not participating in group counseling sessions. CR, R, and P groups, consisting of 4 Ss and the resident assistant, met in semi-structured counseling sessions, thirty-minutes each session, for seven consecutive weeks. Following the final session, post-treatment criterion tests were administered, to permit testing of predictions derived from the major hypotheses and to answer the basic research questions concerning residence hall counseling. Statistical analysis of data included analyses of variance and computation of correlation coefficients.

D. Results

Prediction 1, that Ss in reinforcement counseling groups (CR and R) would have significantly higher scores than Ss in control groups (P and C) on the criterion test for effective study behavior was confirmed. This finding was given further emphasis by the failure of other variables assumed to be associated with study behavior to qualify the results. Controls for sex and major field of subject were implemented statistically. Despite finding of differences between sexes in favor of females, and differences among major fields, in all

instances the Ss under reinforcement counseling had higher mean scores on the criterion test than Ss in control groups. When controls over counselor influence were implemented the same findings obtained. Despite differences in counselors, their attitudes to counseling techniques, and counseling practice, the finding that Ss in reinforcement counseling scored higher on criterion tests was not qualified.

Prediction 2, that Ss in specific cue-reinforcement counseling groups (CR) would score higher on the criterion test than Ss in general cue reinforcement counseling (R) was not confirmed. It was suggested that failure to confirm the prediction was more a function of confounding of cueing techniques rather than untenability of the predicted difference.

Prediction 3, that volunteer Ss would make more improvement in study behavior following reinforcement counseling than non-volunteer Ss, was neither confirmed nor rejected. The small sample (N = 11) precluded possibility of generalizing conclusions. A trend was suggested by the data from the non-volunteer sample, however. Of the 11 non-volunteer Ss, 10 improved in GPA with change ranging from -.27 to 1.10. Median change was -.60.

Prediction 4, that modification in study behavior as a function of reinforcement counseling would generalize over time, was confirmed. A significant F-ratio for treatment effects obtained in a six-month follow-up, with reinforcement groups (CR and R) increasing in linear fashion over time, active control (P) maintaining the same level for the six-month period, and inactive control (C) decreasing in use of effective study behavior.

Prediction 5, that Ss in reinforcement counseling would develop more favorable attitude to college success than Ss in control groups; and Prediction 6, that Ss in reinforcement groups would develop more favorable attitudes to study than Ss in control groups were not supported by the data. It was suggested that failure to support the predictions was a function of insufficient data, rather than untenability of the predictions. Data which were compared to test the predictions were derived from reinforcement counseling groups (CR and R) and active control groups (P). No data were gathered from inactive control Ss. Findings indicated that all Ss in counseling groups developed predispositions to study and to succeed in college work. This finding is in line with results from study seminars and effective study courses indicating that participants learn to study and develop favorable attitudes to study. The discrepancy between attitudinal response and behavior further supports the viability of reinforcement counseling as a

technique to improve study behavior. Findings from criterion tests of study behavior clearly point to superiority of Ss in reinforcement counseling (CR and R) over those in active control groups (P) despite apparent similarity of attitude to study, as indicated by predisposition to use effective study behaviors.

Prediction 7, that Ss in reinforcement counseling (CR and R) would have higher adjusted GPA following treatment than Ss in control groups (P and C) was confirmed.

Data relating to use of basic need patterns to identify students who might be potentially effective in student-to-student counseling were not sufficiently reliable to permit generalizing findings. These data were not treated.

Data gathered to determine congruence between counselee's ratings of resident assistant's effectiveness as counselors and counseling effectiveness as measured on criterion tests failed to reveal a significant correlation between counselee's perception of counselor effectiveness and counseling effectiveness as measured by criterion tests. This finding was interpreted to mean that clients can be quite comfortable in the counseling relationship, despite the fact that they may not be achieving their stated counseling goals. Further, it was suggested that counselees under reinforcement counseling may perceive the attainment of counseling goals as a function of their own behavior rather than being associated primarily with an outside agent.

E. Conclusions and Implications

On the basis of results from this investigation two of the major research hypotheses were supported. It was concluded that reinforcement counseling is a viable technique for improving study behavior and for increasing scholastic achievement of college students.

The study has implications for student personnel staffs in college and university settings. The investigation demonstrated the potential of the residence hall as a learning center. Findings suggest the potential for using non-professional student-advisors in counseling roles in a planned residence hall counseling program.

It is suggested that findings from the study also have implications for counseling staffs in secondary schools and institutional setting such as a facility for delinquent youth. There also appear to be implications for developing programs in junior colleges and secondary schools.

The following recommendations are offered:

1. Long-term follow-up research is needed to determine critical points at which effects of reinforcement counseling level off and/or begin to decline. These data are necessary for efficient planning of programs to maximize benefits and at the same time minimize investment of time and resources.

2. Replication should be made of the study of congruence between counselee's ratings of counselor effectiveness and counseling effectiveness as determined by criterion tests.

3. Replication should be made of the study using planned reinforcement counseling on response classes other than study behavior and with populations other than college students.

4. Residence hall counseling programs, using non-professionals in student-to-student counseling roles, and implementing planned reinforcement counseling in small group settings should be implemented to assist potentially capable students realize their academic potential.

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APPENDICES

**APPENDIX A
COUNSELOR'S PACKET**

CONFIDENTIAL

NO. _____
COUNSELOR PACKETS

**OREGON STATE UNIVERSITY
SPECIAL STUDY PROJECT**

ALL MATERIALS IN THIS PACKET ARE CONFIDENTIAL AND MUST BE KEPT UNDER SECURITY CONDITIONS. At the end of project, if form is in packet, check in Column II. If form has been returned to Project Office, check in Column I.
RETURN PACKET AT END OF PROJECT TO DR. T. A. RYAN, ED. HALL 317.

FOLDER	FORM NO.	DESCRIPTION	I	II
1	A-1	Project Background	_____	_____
	A-2	Project Purposes	_____	_____
	A-3	Project Organization	_____	_____
	A-4	Instruction	_____	_____
2	B-1	Participant Agreement.	_____	_____
	B-2	Study Group Data Sheet	_____	_____
	B-3	Non-Volunteer List	_____	_____
3	C	Reminder Instructions		
	C-1	Reminder Lts. Session 1.	_____	_____
	C-2	Reminder Lts. Session 2.	_____	_____
	C-3	Reminder Lts. Session 3.	_____	_____
	C-4	Reminder Lts. Session 4.	_____	_____
	C-5	Reminder Lts. Session 5.	_____	_____
	C-6	Reminder Lts. Session 6.	_____	_____
4	D-1	Counseling Information	_____	_____
	D-2	Counseling Technique	_____	_____
	D-3	Counseling Closing	_____	_____
5	E-1	Tape-Recorder	_____	_____
	E-2	Attendance Record	_____	_____
	E-3	Time slips	_____	_____
6	F-1	Counseling Sessions	_____	_____
		Session 1 Opening	_____	_____
		(Booklet) Counseling Closing	_____	_____
	F-2	Session 2 Opening	_____	_____
		(Booklet) Counseling	_____	_____
		Closing	_____	_____
	F-3	Session 3 Opening	_____	_____
		(Booklet) Counseling	_____	_____
		Closing	_____	_____
	F-4	Session 4 Opening	_____	_____
		(Booklet) Counseling	_____	_____
		Closing	_____	_____
	F-5	Session 5 Opening	_____	_____
		(Booklet) Counseling	_____	_____
Closing		_____	_____	
F-6	Session 6 Opening	_____	_____	
	(Booklet) Counseling	_____	_____	
	Closing	_____	_____	
F-7	Session 7 Instructions	_____	_____	
	Opening	_____	_____	
	Counseling	_____	_____	
	Evaluation	_____	_____	
		Closing	_____	_____



WINTER PACKET SCHEDULE

WEEK	DATE	ACTIVITY	DUE DATE
1	Jan. 3-6	Leaders Orientation and Demonstration	Jan. 5
2	Jan. 9-13	Testing	Jan. 13
3	Jan. 16-20	First Session	Jan. 20
4	Jan. 23-27	Second Session	Jan. 27
5	Jan. 30- Feb. 3	Third Session	Feb. 3
6	Feb. 6-10	Fourth Session	Feb. 10
7	Feb. 13-17	Fifth Session	Feb. 17
8	Feb. 20-24	Sixth Session	Feb. 24
9	Feb. 27- Mar. 3	Seventh Session and Post Testing	Mar. 3
10	Mar. 6-10	Dead Week	Mar. 10
11	Mar. 13-17	Final Week	Mar. 17

SSP 66-89

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUCATION HALL 317

Dr. T. A. Ryan
Project Director

A-1: BACKGROUND

Thousands of potentially successful students drop out of colleges and universities every year, because they fail to meet scholastic requirements. Records indicate that many of the students who were college dropouts or washouts had the potential for completing a degree program successfully.

Although the problem had been recognized across the nation, prior to 1963, efforts to solve the issue had failed to produce desired solutions. Some of the attempts to cope with the college dropout problem offered promise of success. For the most part, however, the programs which were being tried either failed to reach enough of the student population or failed to lend themselves to easy operation under limitations of the usual college or university setting.

In 1963, a group of students at Oregon State University recognized the problem and decided they wanted to do something about it on this campus. It was in answer to student demand that the Special Study Project was developed on this campus as a means of coping with the problem of dropout-washout of potentially capable students.

Basic assumptions underlying development of the Special Study Project were that (1) students at Oregon State University have potential for success; (2) students want to be successful vocationally; (3) vocational success is related to academic background; and (4) small group counseling brings about desired changes in behavior of college students.

It was decided that residence halls offered a very good environment for small group counseling. Residence halls provided a non-threatening setting where small group sessions could be conducted by someone who was interested in student success and happiness. There were qualified students in the residences who could be trained as student-counselors.

In 1965-66, between 1,000 and 1,500 students volunteered to participate in the third Special Study Project. Small group counseling sessions were held weekly with student-counselors conducting the thirty-minute sessions. At the end of the project, students in the Special Study Groups were compared with students who were not in the project to see effects of the small group approach. It was found that the students in Special Study Project used more good study habits, had improved more in GPA, and had more favorable attitudes toward school, residence hall living, and scholastic success than similar students who had not been in the Project. The Special Study Project has been very successful.

OREGON STATE UNIVERSITY

**SPECIAL STUDY PROJECT
EDUC. HALL 317**

**DR. T. A. RYAN
PROJECT DIRECTOR**

A-2: PURPOSE

The main purpose of the Special Study Project is threefold: (1) to help students think about the kinds of study habits that lead to scholastic success; (2) to encourage students to develop favorable attitudes toward scholastic success and college life; and (3) to help students improve their study habits and increase their use of effective study behaviors.

Secondary purposes of the Special Study Project are related to the main aim. It is anticipated that that as a result of becoming more proficient in use of effective study habits and feeling more satisfied with college life that students would feel less conflict and frustration. It is anticipated that a secondary outcome from the Special Study Project will be that students in the project will become more adjusted and will develop more adequate self concepts.

OREGON STATE UNIVERSITY

**SPECIAL STUDY PROJECT
EDUC. HALL 317**

**DR. T. A. RYAN
PROJECT DIRECTOR**

A-3: ORGANIZATION

Special study groups will be held in the residence halls. Each group will have four participants and a student-counselor.

Throughout the quarter the study groups will meet regularly once a week. Each session will be thirty-minutes in length.

The student-counselor will conduct the weekly sessions, using the special counseling techniques.

Pre-service and in-service training will be provided for student-counselors to become proficient in special counseling techniques to be used in the Special Study Project.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

A-4: INSTRUCTIONS TO COUNSELORS

1. Find out who wants to participate in Special Study Project. Have students who want to participate sign Participant Agreement (B-1). Have all students who want to participate sign the Agreement form, even though your group will have only four members. Extra names will be used by Project Office to make up groups on other floors and/or to make up control groups to use in determining effectiveness of the project. Send to Special Study Project Office, Ed. Hall 317.
2. Administer pre-tests. Project assistants will help in test administration. See special instructions for testing. Be sure that all answer sheets have identification data, including name of person taking test and date. Announce to students prior to testing that the purpose of testing is to get information about the individual's strengths, weaknesses, individual needs which help the person gain greater self understanding. Send to Special Study Project Office, Ed. Hall 317.
3. Complete Study Group Data Sheet (B-2). This information must be correct as this will be used to make up study group rosters. DO NOT USE NICKNAMES. FILL IN FULL NAME, INCLUDING MIDDLE NAME, OF EACH PERSON IN YOUR GROUP. The Project Office needs this information to make GPA comparisons at the end of the Project. Send it to Special Study Project, Ed. Hall 317.
4. Make up list of students (B-3) who in your opinion would benefit from Special Study Project, but who did not sign Participant Agreement. These individuals will be assigned to groups. Send to Special Study Project Office, Ed. Hall 317.
5. Send reminder to each participant before the counseling session. Reminder letters (C) are in packet. Fill in names, dates, place for meeting.
6. Tape-record counseling sessions. (See E-1). LABEL TAPES CLEARLY. IDENTIFY TAPE BOX BY RESIDENCE, COUNSELOR, QUARTER, YEAR. AT START OF EACH COUNSELING SESSION, RECORD: "This is (your name)'s Special Study Group" (Residence and Floor). Session Number _____.
7. Fill in Attendance Record (E-2) for each meeting. If reason for absence is known, indicate reason on record.

OREGON STATE UNIVERSITY

**SPECIAL STUDY PROJECT
EDUCATION HALL 317**

**DR. T. A. RYAN
PROJECT DIRECTOR**

A-4

- 8. Conduct counseling session. Use counseling technique assigned. Instructions for counseling procedures for each session are in packet (F1-F7). Do not change technique during quarter.**
- 9. Administer questionnaires and inventories at end of project. Special instructions will be sent for test administration. Be sure names are on all answer sheets. COUNSELORS SHOULD COMPLETE ALL TESTS TOO. SEND TO SPECIAL STUDY PROJECT OFFICE, ED. HALL 317.**
- 10. RETURN PACKET TO HEAD RESIDENT. Before returning packet, complete check list, Columns 1 and 2 on packet cover. Be sure packet is complete. Include taped records of sessions in packets.**

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A-7

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

IDENTIFICATION
Living group _____
Counselor _____
Date _____

B-1: PARTICIPANT AGREEMENT

Fill in ID Section.

RETURN COMPLETED FORM TO DR. T. A. RYAN, ROOM 317, ED. HALL.

Your living group has been selected to participate in the O.S.U. Special Study Project this year. The Special Study Project aims to accomplish two goals; (1) to have participants improve scholastic achievement; and (2) to develop a set of guidelines on effective study techniques for participating living groups. It is expected that added outcomes of the Special Study Project will be a feeling of satisfaction and the enjoyment which will come from weekly get-togethers. The Special Study groups will meet weekly throughout the quarter. Each session will be thirty minutes in length. Goals of the Special Study Project will be accomplished by sharing ideas in small group sessions.

Participants in the Project agree to meet regularly for a 30-minute session each week. If you want to participate in the Special Study Project, please sign below and indicate the times during the week when you would be free regularly for 30-minute periods during the quarter.

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7-6

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

B-2: STUDY GROUP DATA SHEET

FILL IN INFORMATION AND RETURN IMMEDIATELY TO
DR. T. A. RYAN, ROOM 317, ED. HALL.

Date _____

Living group _____

Counselor _____

Phone No. _____

Meeting time: Day _____ Hour _____

Meeting place: Room _____

Complete following for each participant

Name of Participant	Sex	Age	Yr. in school F/So/J/Sr	Major	Room
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					

Comparison Students

Name of Participant	Sex	Age	Yr in school F/So/J/Sr	Major	Room No
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					

S66

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

B-3: NON VOLUNTEERS RECOMMENDED FOR S.S.P.

FILL IN INFORMATION AND RETURN IMMEDIATELY TO
DR. T. A. RYAN, Room 317, Ed Hall.

Date _____

Living group _____

Counselor _____

The following students were given a chance to volunteer did not volunteer for participation in the S.S.P. However, I think they would benefit from the small group counseling.

Name of student	Sex	Major	Grade Level F/So/J/Sr	Probation		Room No.
				Yes	No	



OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL, 317

DR. T. A. RYAN
PROJECT DIRECTOR

C: REMINDERS OF WEEKLY MEETINGS

Instructions. There are different reminder letters for each week. Send a reminder letter to each participant. Letter should be sent so participant will receive it before the meeting.

Before sending letters, fill in name of participant, time, and place of meeting, and sign letter.

Dear

The first meeting of our Special Study Group will be held this week.

We will have meetings each week throughout the quarter. By the time we have had our last meeting, we should have two accomplishments to our credit. First, we should have decided on some key ideas that we consider important for success and satisfaction in college. These ideas should have value for our whole living group.

The second accomplishment will be more personal. As a result of our weekly Special Study Group sessions each participant should make improvement in scholastic performance and should experience a feeling of real satisfaction and enjoyment.

The participants in the Special Study Project conducted at Oregon State University last year showed higher academic achievement than similar students who did not participate in the Project. The participants were almost unanimous in reporting that they enjoyed the weekly sessions and derived a great personal satisfaction as a result of the group activities.

Each week this quarter we will have a special topic for our 30-minute session. I will send you a clue before each meeting. See if you can figure out what the weekly topics will be from the clues you receive.

The clue for the first meeting is "W. C."!

I'll see you at the meeting. Time _____, Date _____,
Place _____

Sincerely,

Group Counselor

OREGON STATE UNIVERSITY

CORVALLIS, OREGON

SPECIAL STUDY PROJECT

Ed. Hall 317

Dear

The second session of our Special Study Group will be held this week.

Last week, we decided "Why College was Worthwhile," and talked about what each one of us wanted to get out of college and what college meant to each one in our group. This week we will start figuring out ways and means to achieve success in college.

See if you can figure out what we will be discussing. The clue is "P. S."

I'll see you at the meeting! Time
Place

, Date

Sincerely,

Group Counselor

SPECIAL STUDY PROJECT

Ed. Hall 317

Dear

The third session of our Special Study Group will be held this week.

So far we have decided on some of the ways in which our college experience will influence our future careers. We talked about some of the reasons for our being in college and what we hoped to accomplish as a result of our experiences here. We decided in general that the extent to which we will be successful and satisfied ten years from now--in marriage and in our various work-careers will depend a lot on how successful we are in college now.

Last week we started talking about ways to be more successful in college. We spent most of the last session talking about the values of scheduling time and ways to make a workable, flexible schedule.

This week we are going to talk about something else that might lead to college success. The clue for the topic this week is "T. N." Can you figure out what the topic is going to be?

I'll see you at the same time, same place. Time,
Date, Place,

Sincerely,

Group Counselor

OREGON STATE UNIVERSITY

Corvallis, Oregon

SPECIAL STUDY PROJECT

Ed. Hall 317

Dear

This fourth session of our Special Study Group will be held this week.

In the past three meetings, we have decided on our reasons for wanting to be successful in college, and we have agreed on some things we can do to help achieve this success. We decided that making good use of our time was a key factor, and we talked last week about how and why to take notes effectively.

This week, we are going to talk about another item that is important in college life. The clue for the topic this week is "R. A." Can you guess what the topic is going to be?

I'll see you at the meeting! Time
Place

, Date

Sincerely,

Group Counselor

SPECIAL STUDY PROJECT

Ed. Hall 317

Dear

The fifth session of our Special Study Group will be this week.

So far we have figured out three steps to take if we want to be successful in college--using our time carefully, taking notes scientifically, and reading assignments efficiently.

This week we are going to talk about something that probably is of immediate concern to most of us. The topic for the week has something to do with college success and also has a lot to do with being successful in getting and keeping jobs.

The topic concerns something that is of importance to our personal happiness and social success, too. The clue for this week's topic is "E. W." Can you guess what the topic is?

I'll see you. Time
Place

Date

Sincerely,

Group Counselor

SPECIAL STUDY PROJECT

Ed. Hall 317

Dear

The sixth session of the Special Study Group will be held this week.

When we started our study group several weeks ago we set about to figure out ways and means to achieve success in college. We decided first of all that college success is an important factor in determining happiness and success we will have in our personal relationships and vocational careers in the future. We discussed ways and means of achieving success in college. We talked about the importance of using time wisely and planing a workable, flexible schedule with time for study, work, and fun. We talked about taking notes systematically and scientifically. We agreed on the importance of reading rapidly with understanding.

Last week we considered the problem of writing. We talked about things to do and not do to help us express our thoughts in an organized, concise, meaningful way. These things should combine to help us get the most out of college and to bring satisfaction to us after college.

There is one more item that is important as far as college success is concerned. This will be our topic for the week. The clue for the topic is "T. T." Do you know what is on the agenda for us?

See you at the meeting! Time
Place

, Date

Sincerely,

Group Counselor

OREGON STATE UNIVERSITY
SPECIAL STUDY PROJECT

CORVALLIS, OREGON
ED. HALL 317

Dear

Our last session of the Special Study Group will be held
this week.

I am not going to tell you what this meeting will be about
until you arrive. You might figure out what our main task
will be, if you can decipher the clue: "M.P."

This last meeting should be fun. It will be important.
I will see you at the regular time , date ,
place .

Sincerely

Group Counselor

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

D-1: COUNSELING SESSION: STRUCTURE

Each session has three parts:

- (1) Opening (2-5 minutes) Counselor informally greets participants. ESTABLISH RAPPORT. Counselor may use "warm-up question" such as "What would you like if you could have three wishes?" or "Where would you like to go if you could go on a two week vacation--all expenses paid?" "What was the most interesting experience you had last year?"

In this interval, counselor gets participants to discuss what the topic for the session is going to be, using clue given in reminder letter. This discussion on the topic will lead into the counseling period.
(See Opening details for each session.)

- (2) Counseling (20 minutes. Watch timing. This should be exact.)
Counselor uses counseling technique outlined in packet. (See D-2 for details.)

- (3) Closing (2-5 minutes) Counselor closes session. Purposes of closing are to terminate session and to give participants feeling of satisfaction.
(See D-3 for details concerning closing.)

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

D-2: COUNSELING TECHNIQUE (CR)

At end of opening, counselor repeats, "Our topic for tonight is "

1. Counselor gives cue-questions.

Counselor gives cue-questions about every three to four minutes. During 20-minute counseling period, counselor will give about six cue-questions. Questions may be directed to group in general or to particular group members.

Specific cue-questions for each session are given in the Counseling Session outline for each week. Counselors will use the cue-questions on the list. If necessary, cue-questions may be used twice. If meaning remains unchanged, counselors can reword cue-questions to maintain conversational atmosphere of group session.

2. Counselor gives encouragement to participants who mention good study techniques

During group session counselor responds to every participant statement referring to a good study behavior by expressing counselor approval. A favorable study habit response would be any statement indicating participants had used, plans to use, would like to use, suggests trying, knows someone who used, or thinks it a good idea to use an effective study technique. Effective Study techniques are those study habits identified generally as good study habits. (See booklet for reference to good study habits).

Counselor encouragement responses should be made conversationally, and should be responses, such as:

"Great idea"	"Wonderful"
"Sounds fine to me"	"Hm mmm"
"That sounds great"	"I think that's a great idea"
"Good"	

Counselor does not respond to any remark of participant referring to negative study habit. If participant mentions negative study behaviors, counselor says nothing.

3. Counselor maintains warm, understanding, empathic attitude.

Counselor does not tell participants what to do. Counselor encourages participants to talk. Counselor encourages through his warm, understanding attitude. Without saying it out loud counselor lets participants know he is interested in them. Counselor maintains non-judgmental atmosphere.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

D-3 COUNSELING SESSION CLOSING

Counselors use same closing for all sessions except last one.

Allow two to five minutes for termination of session. Closing should break into the counseling period, even if there are unfinished items or discussions in progress.

Closing should accomplish the following:

- (1) Bring session to halt
- (2) Give brief summary of main points of session
- (3) Give encouragement to participants
- (4) Leave participants with desire to come back

Individual variation may be used in closing sessions. However, each closing should follow the same general pattern and include the following:

1. Bring session to halt. At exactly 20 minutes after counseling started: say, "Oh, I see our time is up for tonight."
"I'm sorry to break in, but I see our time is up tonight."

IN STOPPING THE COUNSELING PERIOD, BE SURE TO GIVE THE MESSAGE THROUGH GESTURES, TONE OF VOICE, THAT YOU ARE SORRY TO HAVE TO QUIT.

2. Give one-minute summary. Ask one of participants, alternating throughout so you ask different one each time, to give a quick summary.
"In thirty-seconds, what would you say were the main points tonight (John)?"
"(Mary) what would you say were the main things we covered tonight --in thirty seconds?"
ASK FOR THIRTY SECONDS. IT WILL TAKE SIXTY.

3. Give encouragement to participants. Let your group members know that YOU are proud of them; that YOU think they accomplished something; that THEIR ideas are worthwhile.

"I think we really accomplished a lot tonight!"
"I think you had some great ideas tonight"
"You really made some good points tonight"

4. Reminder of next week.
"See you next week"
"We should have a good session next week"
"I'll be seeing you next week"

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

E-1: RECORD OF STUDY GROUP SESSION: TAPED RECORD

1. Tape record all sessions. Check out and return recorder promptly at end of session, as other counselors in your residence will be using the same recorder.

CLEARLY LABEL TAPE BOX AND INTRODUCE EACH SESSION BY IDENTIFYING COUNSELOR, RESIDENCE, SESSION NUMBER.

Additional tapes may be obtained from Project Office, Room 317, Ed. Hall. If additional tapes are needed, return used tapes to Project Office and exchange for new tapes.

At end of project, put completed tape in Packet to be returned to Project Office.

2. Use both sides of tape. Record at slow speed (3-3/4 ips). It should be possible to record 3 sessions on each side. Be careful not to record over a previous recording.

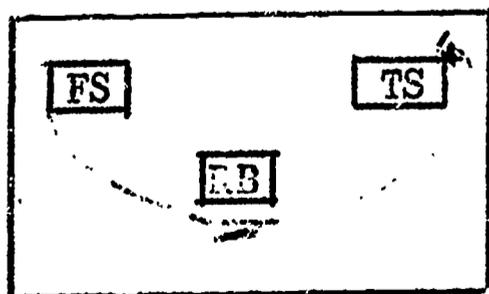
EXAMPLE FROM TAPED RECORD OF LAST YEAR:

Side 1:	1-141	Session 1
	151-330	2
	335-500	3
	500-610	4
Side 2:	1-150	Session 5
	162-428	6
	435-709	7

Be sure to label tape: Living Group, Leader, Date.

3. Steps in setting up recorder:

1. Put empty reel on take-up reel spindle.
2. Put full tape on feed spindle.
3. Thread tape from feed spindle through recording box to take-up spindle.
4. Plug in microphone.
5. Plug in recorder.
6. Turn on. Set volume about 5-6.
7. Press Record Button.
8. Turn switch to Record.



Diagram

NOTE: RECORDER IS TURNED ON BY PUSHING VOLUME BUTTON DOWN. PRESS RECORD BUTTON. KEEP IT DOWN WHILE TURNING SWITCH TO RECORD.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUCATION HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

ID _____
Residence _____
Counselor _____
Quarter/year _____

E-2 ATTENDANCE RECORD
Complete Identification Section

Participant (Full Name)	MEETING							
	1	2	3	4	5	6	7	8. -
1.								
2.								
3.								
4.								
5.								

FILL IN RECORD BY : MARKING "A" WHEN ABSENT.

RETURN THIS FORM IN PACKET AT END OF PROJECT.

IF REASON FOR ABSENCE IS KNOWN, PLEASE INDICATE IN BOX OR
EXPLAIN BELOW.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC. HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F: COUNSELING SESSIONS

Special Opening and Counseling instructions are given for each session. Use same closing (D-3) for all except last session. Special closing is outlined for final session.

Counselors should follow instructions given.

Counselors should check with Project Officer before attempting any modifications in small group sessions.

See separate instructions for each week (F-1 to F-7 inclusive.)

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F-1: OPENING (SESSION 1)

Counselor may use individual approach to establishing rapport. In the two to five minutes set aside for opening, counselor should accomplish the following:

- (1) Make members feel comfortable and at ease
- (2) Introduce members. If the group is made up of participants who do not know each other, ask them to tell something about themselves. (hobby or hometown, or something to help identify the individual)
- (3) Tell the participants a little bit about the SSP
- (4) Introduce the topic:
"Shall we get on with the topic for today?" Did anybody figure out the topic? Remember the clue was WC? The initials are the first letters of the two words in the title of our topic for tonight. Any ideas?

Give additional clues as needed. Try to get them to figure out the topic. Be sure, however, to watch time, so you are ready to start counseling period at end of five minutes.

- (5) Restate the topic:
The topic then for today is WHY COLLEGE? Our task for this first session is to look at some of the reasons for coming to college--to figure out why we are here, and to think about reasons that anyone might have for coming to college.

The question then, is WHY COLLEGE?

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F-1: COUNSELING (SESSION 1) CR

Counselor gives cue-questions about every 3 to 4 minutes.

CUE QUESTIONS

1. Why do you think people go to college?
2. What are some (other) values of a college degree?
3. What does college education mean to you?
4. Why did you come to O.S.U.?
5. How do you plan to use your degree?
6. What do you think college has to do with success in a job career? (If this has not already been discussed.)

Counselor gives encouragement to participants who express sound ideas. Counselor uses verbal replies to show approval.

1. Great idea
2. That sounds fine to me
3. Good
4. Wonderful
5. I found that works

Counselor maintains warm, understanding attitude.

Counselor does not tell members what to do.

Close after 20 minutes.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

D-3 COUNSELING SESSION CLOSING

Counselors use same closing for all sessions except last one.

Allow two to five minutes for termination of session. Closing should break into the counseling period, even if there are unfinished items or discussions in progress.

Closing should accomplish the following:

- (1) Bring session to halt
- (2) Give brief summary of main points of session
- (3) Give encouragement to participants
- (4) Leave participants with desire to come back

Individual variation may be used in closing sessions. However, each closing should follow the same general pattern and include the following:

1. Bring session to halt. At exactly 20 minutes after counseling started: say, "Oh, I see our time is up for tonight."
"I'm sorry to break in, but I see our time is up tonight."

IN STOPPING THE COUNSELING PERIOD, BE SURE TO GIVE THE MESSAGE THROUGH GESTURES, TONE OF VOICE, THAT YOU ARE SORRY TO HAVE TO QUIT.

2. Give one-minute summary. Ask one of participants, alternating throughout so you ask different one each time, to give a quick summary.
"In thirty-seconds, what would you say were the main points tonight (John)?"
"(Mary) what would you say were the main things we covered tonight --in thirty seconds?"
ASK FOR THIRTY SECONDS. IT WILL TAKE SIXTY.

3. Give encouragement to participants. Let your group members know that YOU are proud of them; that YOU think they accomplished something; that THEIR ideas are worthwhile.

"I think we really accomplished a lot tonight!"
"I think you had some great ideas tonight!"
"You really made some good points tonight!"

4. Reminder of next week.
"See you next week!"
"We should have a good session next week!"
"I'll be seeing you next week!"

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F-2: OPENING (SESSION 2)

1. Establish rapport.

Counselor may use individual approach to establishing rapport. In opening period, Counselor helps participants to feel at ease.

2. Introduce topic.

Does anyone have an idea what the topic is for tonight? The clue was P.S. These are the first letters of the two words that make up the title of the topic for this session. What do you think?

Give additional clues as needed. Try to get them to figure out the answer. Be sure to end opening within 5 minutes.

"The topic for tonight is Planning Schedule. This is related to what we talked about last week. We decided in our first session that there were some good reasons for coming to college.

Tonight we want to start thinking about ways and means of achieving success here. First we want to see how we can work out a plan.

Let's talk about some of the advantages of making a schedule, and then let's see if we can think of some practical ways of making a workable schedule.

OREGON STATE UNIVERSITY

**SPECIAL STUDY PROJECT
EDUC HALL 317**

**DR. T. A. RYAN
PROJECT DIRECTOR**

F-2: COUNSELING (SESSION 2) CR

Counselor gives cue-questions about every 3 to 4 minutes

CUE QUESTIONS

1. Any ideas as to why a schedule is worthwhile?
2. In making a schedule what do you think about planning time for relaxation?
3. What about planning time and place for study?
4. Any ideas how to make up a schedule for a day, or week, or a whole term?
5. What do you think about leaving time for emergencies?
6. What about planning some time for regular reviews?
7. How can you make a schedule that works and still is flexible?
8. What do you think is the best time to set aside for study?
9. Any ideas about how much time to set aside for study?
10. Any other ideas?

Counselor gives encouragement to participants who express favorable study habit responses. Counselor uses verbal responses to show approval.

ENCOURAGEMENT RESPONSES (Examples)

"Good idea"

"Sounds like a good idea to me"

"I found that works"

"Good"

"Wonderful"

(Repeat what participant said) "You found that works. Good!"

Counselor maintains atmosphere of warmth and keeps non-judgmental attitude. Counselor is friendly and concerned.

Close after 20 minutes.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F-3: OPENING

1. Establish rapport

Counselor may use individual approach to establish rapport.

2. Introduce topic

Any ideas on the topic for tonight? The clue we had for the topic for this session is T.N. What do you think the session topic is this week? Ideas?

Give additional clues as needed. Get participants to figure out topic if possible.

The topic for tonight is TAKING NOTES. We are concerned mainly with taking notes from lectures and reading.

Our task tonight will be to talk about why and how to take good notes.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F-3: COUNSELING (SESSION 3) CR

Counselor gives cue-questions about every 3 to 4 minutes.

CUE QUESTIONS

1. What value do you see in taking notes?
2. Do you think notes help at all in learning material:
(How)?
3. How do you go about organizing material so it is
worth something?
4. Have you ever tried the parallel system of note-
taking? Arranging your notebook so you have lecture
notes and reading notes on the same topic together in
your notebook?
What do you think about this idea?
5. What about the summary system?
Where you keep separate sets of lecture and reading
notes using a kind of summary form for both?
What do you think of this system?
6. Any ideas about different kinds of notebooks, or
note-taking gimmicks?
7. How can you tell what is important?
How do you know important parts of a lecture?
What about reading assignments--what is important?
8. How can you get a rambling lecture into any kind of
worthwhile notes?
9. What do you think about going over, rewriting or
retyping notes?
10. Do you think taking notes helps at all to keep your
mind on what you are reading--or what a prof is
saying?

Counselor gives encouragement to participants who express good study habit responses. Encouragement is given through verbal approval.

ENCOURAGEMENT RESPONSES (EXAMPLES)

"Good idea"
"It sounds great"
"I think that's terrific"
"That's an idea I never thought of. Sounds great"
"Good"

Counselor maintains warm understanding attitude and keeps friendly atmosphere.

Close after 20 minutes.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F-4: OPENING (SESSION 4)

1. Establish rapport.
Counselor may use individual approach. Set up friendly comfortable atmosphere.
2. Introduce topic
Any ideas on the topic for tonight? The clue was R.A., remember? What are your ideas? What do you think?

Give additional clues as needed. Get participants to figure out topic if possible.

The topic for tonight is READING ASSIGNMENTS.

I suppose most of us are interested in reading improvement.

Tonight we are going to talk about ways of reading fast and ways to increase understanding.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F-4: COUNSELING (SESSION 4) CR

Counselor gives cue-questions about 3 or 4 minutes

CUE QUESTIONS

1. Any ideas on reading assignments? Do you think a person's reading speed and comprehension have anything to do with how much you get out of a class?
2. What about increasing reading comprehension. Do you think skimming something before reading in detail is helpful? How?
3. What about trying to get the overall picture of something before reading for details? Does this help in increasing comprehension. How can you get the overview? Does it help to go over the headings first?
4. Does it help in increasing comprehension if you have some particular purpose for reading an assignment?
5. What do you think about trying to turn each heading into a question before you read the section? Would this help in remembering?
6. What about underlining? Writing in margin?
7. What about re-reading assignments. Any ideas on this? How and when does re-reading help?
8. What about review? Any ideas on reviewing?
9. What do you think about reciting? Telling somebody else what you've read? Does this have any value?
10. Any ideas on ways to increase reading speed? What about making a chart? Having a practice session--5 minutes a day?

Counselor gives encouragement to participants who express good study responses. Counselor uses verbal responses to show approval.

ENCOURAGEMENT RESPONSES (EXAMPLES)

"Good"

"That sounds like a good idea"

"Great idea"

Counselor maintains warm understanding attitude.

Closes after 20 minutes.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F-5 OPENING (SESSION 5)

1. Establish rapport.
Counselor may use individual approach. Set up friendly relaxed atmosphere.

2. Introduce topic.

"Does anyone have any ideas on what tonight's topic is? The clue this week was EW. Any ideas?"

"The topic is EFFECTIVE WRITING."

"In school there usually is some kind of writing required in practically all courses. We also have things like letters, forms and applications that require writing.

"Our main task tonight will be to try to think about some of the advantages of effective writing, and to work out some ways and means for expressing thoughts and ideas clearly, concisely, and effectively."

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
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DR. T. A. RYAN
PROJECT DIRECTOR.

F-5: COUNSELING (SESSION 5) CR

Counselor gives cue questions about every 3 or 4 minutes.

CUE QUESTIONS

1. Any ideas on some of the advantages from writing clearly?
2. How can a person keep from rambling when you have something to write?
Do you think an outline helps?
3. What about things like grammar, punctuation, spelling?
How do you know if you're using good grammar?
What about punctuation?
What if a person has trouble spelling?
4. What do you think about making a rough draft of something you have to write.
5. What about writing term papers or themes? Anything special about doing these?
What about bibliographies?
What about ways of doing footnotes?
Tables of contents?
6. Do you think the appearance has anything to do with effective writing?
7. What do you think are some of the most common faults that are made when it comes to expressing ideas in writing?
What about long, awkward sentences? How can you correct this?
What about misuse of words?
8. Any ideas on ways of organizing materials so your writing is clear and makes sense?
What about introduction, body, and conclusion?
9. Do you think there's any value in rereading what you've written--to see how it sounds?
10. What do you think a person should look for in going over a rough draft--to get it ready for the final writing?

Counselor gives encouragement for favorable study responses.

ENCOURAGEMENT RESPONSES (EXAMPLES)

"Good idea"

"I think that's worth trying"

"Great"

Counselor maintains warm, friendly atmosphere.

Close after 20 minutes.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL

DR. T. A. RYAN
PROJECT DIRECTOR

F-6: OPENING (SESSION 6)

1. Establish rapport.

Counselor may use individual approach. Be friendly, relaxed, non-judgmental atmosphere.

2. Introduce topic.

"Do you have tonight's topic figured out? The clue this week was T.T.? Who has an idea what the topic is?"

Give additional clues as needed. Try to get them to figure out the topic.

"The topic tonight is TAKING TESTS."

Our topic tonight is concerned with test-taking. We are going to talk about ways to prepare for exams and how to take exams to increase chances of success.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F-6: COUNSELING (SESSION 6) CR

Counselor gives cue questions about every 3 to 4 minutes.

CUE QUESTIONS

1. How can a person go about getting ready for exams in advance--rather than waiting for the last minute?
2. How does it work to break your preparation for exams into two periods--the long stage with lots of little refreshers; and short stage with a big final push?
3. What advantage is there to making an outline of the content that will be covered in an exam?
4. How can you use reciting, reviewing, and practice-testing to prepare for big exams?
5. What do you think about making up a set of sample questions that you think might be on the test?
6. What about such things as making lists of terms; having buzz sessions; psyching out the prof?
7. How do you go about taking the exam--after you have done everything possible to prepare thoroughly? What about reading instructions? Planning time?
8. How do you organize answers to essay questions? What 3 parts always are essential.
9. What guidelines are there for answering objective tests? True-false? Multiple choice? Completion?
10. How can a person keep from getting nervous in an exam?

Counselor gives encouragement for favorable study responses.

ENCOURAGEMENT RESPONSES (EXAMPLES)

"Good idea"

"That should work"

"I think that's something we all could try"

"That is really a good point"

Counselor keeps warm, friendly, non-threatening environment.

Close after 20 minutes.

OREGON STATE UNIVERSITY

SPECIAL STUDY PROJECT
EDUC HALL 317

DR. T. A. RYAN
PROJECT DIRECTOR

F-7: FINAL SESSION INSTRUCTIONS

This session has four parts:

- (1) Opening (3 minutes)
- (2) Counseling (10 minutes)
- (3) Administering Project Evaluations (5 minutes)
Administering Study Habits Inventory (10 minutes)
- (4) Closing (2 minutes)

Counselors should watch time carefully.

Counselor should complete the Project Evaluation and Study Habits Inventory, too. The information will be used to make improvements in the Special Study Project and residence hall program. It is important that questions be answered truthfully.

BEFORE THE FINAL CLOSING OF THIS SESSION, COUNSELOR SHOULD COLLECT ALL PROJECT EVALUATIONS AND STUDY HABITS INVENTORY, PUT THEM INTO AN ENVELOPE AND RETURN THE ENVELOPE TO THE PROJECT OFFICE. ED. HALL 317.

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F-7: OPENING (SESSION 7)

1. Establish rapport
Counselor may use individual approach. Set up friendly relaxed atmosphere.

2. Introduce topic

"Who has the topic for tonight figured out? The clue was M.P. Remember? Any ideas?"

Give additional clues as need. Try to get them to figure out the topic.

"The topic tonight is Making Predictions. This is our last session this quarter. We have 2 tasks tonight. We will summarize briefly the high-points of our special group sessions this quarter-- and we will make a prediction for the future.

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F-7: COUNSELING (SESSION 7) CR

Counselor gives cue questions, rotating so he calls group members one after the other.

CUE QUESTIONS:

1. Let's start at the beginning. _____ what do you think were important things we talked about in the first couple of sessions--on Values of College, and Planning Schedules?
2. _____ what do you think were good points we made about note-taking?
3. _____ what do you think were the important points we talked about when we discussed reading and writing effectively?
4. _____ what do you think were the main points of our meeting last week on taking exams?

Counselor gives approval for all favorable study habit responses.

Now for the predictions!

"What do you predict your GPA will be for this quarter?"

Call on each one by name.

(Next will be Project Evaluation. See next page.)

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Project Director

F-7: PROJECT EVALUATION AND STUDY HABITS INVENTORY
(SESSION 7).

The next thing tonight is to fill in this short project evaluation. The Project Director wants the reactions of those who were in the Project so improvements can be made for next term.

These evaluations ask for suggestions and reactions. Answer every question. Answer questions truthfully. You have 5 minutes.

COLLECT ALL EVALUATIONS. PUT IN ENVELOPE TOGETHER WITH EVALUATION BY COUNSELOR.

The last thing on the agenda is to complete the Study Habits Inventory. The purpose of this task is to take inventory of your study techniques. The most important thing is to be honest. ANSWER EVERY QUESTION. PUT ONE CHECK MARK ONLY FOR EACH QUESTION. THIS SHOULD NOT TAKE MORE THAN 10 minutes.

NOTE: SPECIAL INSTRUCTIONS FOR ADMINISTERING THE EVALUATIONS AND INVENTORIES WILL BE INCLUDED IN SPECIAL TEST PACKET WHICH WILL BE SENT TO YOU. READ THE INSTRUCTIONS CAREFULLY BEFORE ADMINISTERING PROJECT EVALUATIONS AND STUDY INVENTORIES TO PARTICIPANTS. NOTE THE SPECIAL INSTRUCTIONS FOR ADMINISTERING STUDY INVENTORIES TO CONTROLS.

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F-7 CLOSING (SESSION 7)

Be sure this session closes on a note of enthusiasm, warmth, and genuine good-feeling. Counselor should let his members know that he has enjoyed the weekly sessions. Counselor should let members know that he will continue to be interested in them.

Counselor should close meeting, telling members once again that they did have some very worthwhile ideas and that he has every belief in their success in the future.

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D-2 COUNSELING TECHNIQUE (R)

At end of opening counselor repeats, "Our topic for tonight is -----."

1. Counselor gives cue questions.

Counselor gives cue-question, "What do you think about (topic)?"

Questions may be directed to group in general or to particular group members.

Cue questions which counselor uses are as follows:

"What do you think about-----?"

"Why do you think it would be a good idea (worthwhile) to -----?"

"What are some of the ways a person could go about -----?"

"Any other ideas?"

2. Counselor gives encouragement to participants who mention good study techniques.

During group session counselor responds to every participant statement referring to a good study behavior by expressing approval. A favorable study habit response would be any statement indicating participant has used, plans to use, would like to try using, knows someone who used, is using an effective study technique. Effective study techniques are those study habits identified generally as good study habits. (See booklet for reference if in doubt).

Counselor encouragement responses should be given conversationally and should be replies, such as:

"Great idea"	"I found that's a great idea"
"That sounds fine to me"	"Wonderful"
"Good"	"I found that works for me too"
"That sounds great"	"Hm mmm"

Counselor does not respond to any remark of participant referring to use of negative study habit. If participants mention negative study behaviors, counselor says nothing.

3. Counselor maintains warm, understanding, empathic attitude.

Counselor does not tell participants what to do. Counselor encourages participants to talk. Counselor encourages through his warm, understanding attitude. Without saying it out loud, counselor lets participants know he is interested in them. Counselor established non-judgmental atmosphere.

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F-1: COUNSELING (SESSION 1) R

Counselor gives cue-questions.

CUE QUESTIONS

What are your ideas about this? Why go to college?

Do you think a college education is worthwhile?

How do you think a college degree helps?

Any other ideas?

Counselor gives encouragement to participants who express sound ideas. Counselor uses verbal responses to show approval.

Counselor does not tell members what to do.

Counselor maintains warm, understanding attitude.

Close after 20 minutes.

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F-2: COUNSELING (SESSION 2) R

Counselor gives cue questions.

CUE QUESTIONS

What do you think about planning schedules?

What do you think are the advantages of planning schedules?

How would you go about planning schedules?

Any other ideas?

Counselor gives encouragement to participants who express favorable study responses. Counselor uses verbal responses showing approval.

ENCOURAGEMENT RESPONSES (EXAMPLES)

"Good"

"Good idea"

"Sounds great"

"I tried that. It works"

(Repeat what participant said) "You found that . . . works. Good!"

Counselor maintains atmosphere of warmth and friendliness. Counselor lets participants know he is interested in them.

Close after 20 minutes.

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F-3: COUNSELING (SESSION 3) R

Counselor gives cue-questions.

CUE QUESTIONS

What do you think about note-taking?

What value do you see in having a good set of notes?

Do you think it's worthwhile to have any special system for taking notes?

What kind of note-taking system do you use?

Any other ideas?

Counselor gives encouragement to participants who express favorable study responses. Counselor uses verbal replies to show approval.

ENCOURAGEMENT RESPONSES (EXAMPLES)

"Good idea"

"Sounds like a good idea"

"Good"

"Um hmm"

"Great"

"I'll bet that works"

Counselor maintains warm understanding attitude. Keep friendly atmosphere.

Close after 20 minutes.

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**F-4: COUNSELING (SESSION 4) R
Counselor gives cue-questions.
CUE QUESTIONS**

What do you think about importance of reading?

How do you feel about ways of increasing reading speed?

Any ideas on ways to increase reading comprehension?

Any other ideas?

Counselor gives encouragement to participants who express good study responses. Counselor uses verbal approval.

ENCOURAGEMENT RESPONSES (EXAMPLES)

"Good idea"

"That sounds like a great system"

"I'll bet that really works"

"I'll try that myself next week"

Counselor maintains warm, understanding attitude.

Closes after 20 minutes.

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F-5: COUNSELING (SESSION 5) R

Counselor gives cue questions.

CUE QUESTIONS

What do you think about the importance of writing effectively?

How do you feel about ways of improving written expressions?

Any ideas on ways to write more effectively?

Any other ideas?

Counselor gives encouragement to participants who give good study responses. Counselor uses verbal approval.

ENCOURAGEMENT RESPONSES (EXAMPLES)

"Great idea"

"Sounds like a good idea to me"

"Good"

"I think that's worth trying"

Counselor maintains warm, friendly atmosphere.

Close after 20 minutes.

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F-6: COUNSELING (SESSION 6) R

Counselor gives cue questions.

CUE QUESTIONS

What do you think about taking exams?

How do you think a person should prepare for exams?

Any ideas on ways to be better prepared for essay exams?

What about getting ready for objective exams?

Any other ideas?

Counselor gives encouragement for all favorable study responses.

ENCOURAGEMENT RESPONSES (EXAMPLES)

"Good idea"

"That sounds great to me"

"I think we all might try that"

"That is a good point"

"Good"

Counselor maintains warm, friendly, non-threatening environment.

Close after 20 minutes.

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F-7: COUNSELING (SESSION 7) R

Counselor gives cue questions, rotating so he calls on group members one after the other.

Counselor states, "First we will take a look at what we have done."

CUE QUESTIONS

1. What do you think was one important point we made in our sessions? (Use this question for each member.)

2. Any other ideas?

"Now let's make a guess as to where we are going."

"What is your prediction for your GPA for this quarter?"

(Ask each one in turn.)

(Next will be Project Evaluation. See next page)

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D-2: COUNSELING TECHNIQUE (P)

At end of opening, counselor repeats, "Our topic for tonight is -----?"

1. Counselor provides written materials on topic for the participant to read.

When participants have finished reading material, counselor gives cue-question:

"What do you think about this?"

During session counselor may ask, "Any other ideas or thoughts?"

If conversation stops during a four-minute interval, counselor directs question to particular participant, asking, "What do you thin, (John) (Mary)?"

2. Counselor sets up atmosphere of freedom.

Counselor does not express opinion on any of ideas or reactions given by participants.

Counselor allows complete freedom to participants to say what they think and express what they feel.

Counselor does not express any opinion or reaction to the remarks of participants. Counselor asks other participants to do the reading.

3. Counselor maintains warm, understanding, empathic attitude.

Counselor uses non-verbal means to convey the idea to participants that he is interested in them.

Counselor maintains warm, understanding attitude. Counselor establishes non-judgmental atmosphere.

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F-1: COUNSELING (SESSION 1) P

Counselor restates the topic, "Our task for tonight then is to think about why a person goes to college."

Before we begin our discussion, let's take a few minutes to read this brief article about college.

After participants have finished reading, collect booklets. Ask "What do you think about this?"

Counselor continues to ask, "Any other ideas?"
"What do you think?"
"How do you feel about this?"

Counselor maintains warm, understanding attitude. Sets up environment where participants feel free to talk.

Counselor does not express his reactions or opinions.

Close after 20 minutes.

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II PLANNING A SCHEDULE

The kind of learning you will do in college differs from your previous learning in at least two ways. For one thing, you will have more to learn in a shorter time. Secondly, you will need to have a scholarly attitude toward learning. You need to be able to make a plan for using your time to the best advantage. You will learn very little, however, even with the best time-plan unless you really want to learn.

Where should you begin? When should you start trying to plan your time? You should begin right now. From the very beginning the job of being a college student is a very time-consuming job. Your classes may not fill up the day. Your classes may be distributed so you have hours of "free" time in between. How you decide to use the "free" time between classes may be the key to your success in college.

Your courses may take fifteen to eighteen hours a week. This doesn't include the time you will need to spend on homework and study assignments. Most authorities agree that the average student needs to spend two hours of outside work for every hour of class. This means that if you are taking fifteen hours of class work, you will need to spend thirty hours of study time outside of class every week.

It is because the sheer volume of work that you will be expected to do is so great that handling your time wisely is essential if you are to be a successful student.

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You may very well be asking yourself right now just where you will get the time to do all the work that your instructors expect of you this term. The answer is simple. You must budget your time efficiently. You must plan a time schedule. People in all walks of life have to plan their time if they want to get the most out of living. Careful planning leads to enjoyable living and pleasant working.

If you study only when "you happen to have the time" then you are wasting many valuable hours every week. You are not getting the maximum return for the amount of time you do spend on your studies. If you are to do successful work in college, you must plan your time with considerable care.

How do you go about making up a study schedule? There should be a pattern for the way you spend your time. The purpose of a time budget or a study schedule is to provide that pattern.

Your first step is to list your fixed expenses. You must note first of all the time you must allow for the fixed demands. Indicate the hours you have to set aside for your classes. Then allocate the time you need to study and carry out your homework assignments for each of these classes.

Your first two steps will cover your time allotment for your in-class and out-of-class study demands.

Your next task is to fill in the other fixed demands on your time. You need to set aside the hours you need for eating, sleeping, traveling, working. Be sure you allow

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plenty of time for sleep. Going without sleep may seem like a good way to cut corners on your time budget, but lack of sleep actually makes concentrating on your studies more difficult. Lack of sleep deadens your enthusiasm for learning. Insufficient rest makes the task of learning harder and slower.

When you have taken care of all the essentials, fill in the hours for extracurricular activities, loafing, dating, fun. If you find there isn't time for all the things you want to do--cancel some of them. It is better to give up some of the activities than to suffer physically, academically, socially from having too many irons in the fire.

A good budget should be flexible. A good time budget should make allowances for the unexpected. A good schedule should allow some time for emergencies. A time schedule should be a help--not a hindrance to success in college. You should be able to alter your time schedule so it meets the realities of college life. Keep your budget flexible enough so that you are not shackled to a meaningless routine.

If you take the trouble to plan carefully, you will find that your college life will flow smoothly in spite of the extra pressures you may be under from time to time.

You need to make three schedules--one should be a daily time schedule; one should be a weekly schedule; and one should be a long-term quarter schedule.

On the weekly time schedule, write in all your classes and all other regular fixed hours, such as meals, work, church,

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practices, sleep. On the term schedule, put all the deadlines for papers, concerts, reports, exams. This will enable you to plan your work in advance. Instructors invariably penalize students for late work.

Use most of the free hours from 8:00 A.M. to 4:00 P.M. for study, with the exception of Saturday afternoon and Sunday. Write down specifically which subject you expect to study each hour, so there is never any doubt in your mind about how to spend your time.

Schedule study hours so they immediately follow or immediately precede the corresponding class.

Break up three or four-hour blocks of "free" time to study two or three different subjects during that period. It is not wise generally to study one subject for more than one hour at a time, except in cases of term reports, reviews, special projects. There is a point of diminishing returns.

Schedule a daily review period of at least fifteen minutes for each subject, and a weekly review period of at least two hours. This review is very important because most of our forgetting takes place in the first twenty-four hours after the original learning.

Plan for daily recreation. Include some athletics or physical exercise. Campus activities and other forms of social life should be scheduled. Pay yourself an occasional dividend in social life as a result of your carefully planned study periods.

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Allow at least eight hours of sleep each night.

Plan at least one-half hour of relaxation after the evening meal.

Schedule at least one-half hour of free pleasure reading or music daily. A good time is just before going to bed.

Revise your schedule during midterm and final examinations to allow plenty of time for review periods prior to exams.

Leave some free hours each week to provide for the unexpected, the emergencies, the extra study that may be needed for a particular subject at a particular time. Be realistic about this schedule. Keep it flexible.

Practice using your schedule. Review and revise it if you need to do so. Stick to your schedule.

APPENDIX B

**Table 2. Number of Ss in each treatment condition for three quarters.
N = 928**

Quarter	Treatment				Total
	Specific Cue Reinforcement	General Cue Reinforcement	Active Control	Inactive Control	
Fall	76	72	80	76	304
Winter	84	84	80	80	328
Spring	72	76	72	76	296
Total	232	232	232	232	928

APPENDIX C

Table 3. Distribution of sample by sex, major field, grade level and treatment. N = 928

Category	Treatment			
	Specific Cue Reinforcement	General Cue Reinforcement	Active Control	Inactive Control
<u>Sex</u>				
Male	122	120	118	112
Female	110	112	114	120
<u>Major Field</u>				
Agriculture	15	16	11	12
Business & Technology	32	26	28	19
Education	34	39	35	39
Engineering	41	37	33	31
Forestry	11	12	6	7
Home Economics	22	19	12	30
Humanities				
Soc. Science	25	20	42	27
Pharmacy	8	14	10	7
Science	44	49	55	60
<u>Grade Level</u>				
Freshmen	196	181	176	160
Sophomore	26	34	45	46
Junior	10	17	11	26

Table 4. Distribution of sample by age, residence, and treatment.
N = 928

Category	Treatment			
	Specific Cue Reinforcement	General Cue Reinforcement	Active Control	Inactive Control
<u>Age</u>				
17	3	6	7	9
18	135	136	132	110
19	66	63	65	67
20	18	15	20	27
21	7	8	5	14
22	2	4	1	3
23	1	0	2	2
Mean Age	18.75	18.54	18.54	18.75
<u>Residence</u>				
Buxton (F)	20	20	20	24
Callahan (F)	20	28	24	28
Cauthorn (M)	16	20	20	24
Hawley (F)	16	16	20	12
McNary (M)	20	16	20	24
Poling (M)	20	20	20	12
Sackett AB (F)	16	16	12	12
Sackett CD (M)	12	16	8	12
Snell (F)	20	16	20	20
West (F)	24	24	28	20
Wilson (M)	20	16	20	20
Weatherford(M)	28	24	20	24
(F) = Female				
(M) = Male				

APPENDIX D

Table 5. Assignment of resident assistants to counseling treatments for Fall, Winter and Spring Terms.

Counselor	School Term			Counselor	School Term		
	Fall	Winter	Spring		Fall	Winter	Spring
1	CR	R	P	46	P	CR	R
2	P	CR	R	47	R	P	CR
3	R	P	CR	48	CR	R	P
4	*	CR	R	49	CR	R	*
5	R	P	CR	50	*	R	P
6	P	CR	R	51	R	P	CR
7	CR	R	P	52	CR	R	P
8	P	CR	*	53	P	CR	R
9	R	P	CR	54	R	P	CR
10	P	CR	R	55	R	*	*
11	P	CR	*	56	CR	R	*
12	P	R	*	57	CR	R	P
13	R	P	*	58	P	CR	R
14	P	CR	R	59	R	P	CR
15	R	P	CR	60	CR	R	P
16	CR	R	P	61	P	CR	R
17	CR	R	*	62	*	P	CR
18	*	P	CR	63	P	CR	R
19	*	P	CR	64	R	*	P
20	P	CR	R	65	CR	R	P
21	P	CR	R	66	*	*	R
22	R	P	CR	67	R	P	CR
23	P	CR	R	68	CR	R	*
24	P	CR	R				
25	P	CR	R				
26	CR	R	P				
27	P	CR	*				
28	CR	R	P				
29	*	*	R				
30	R	P	*				
31	P	CR	*				
32	*	*	P				
33	P	CR	R				
34	CR	R	P				
35	R	P	CR				
36	*	P	CR				
37	CR	*	*				
38	R	P	CR				
39	*	R	P				
40	CR	R	P				
41	R	P	CR				
42	CR	R	P				
43	CR	R	P				
44	R	P	CR				
45	*	CR	R				

Key:

- CR = Specific cueing + reinforcement (Experimental)
- R = General cueing + reinforcement (Experimental)
- P = Placebo (active control)
- * = Counselor not working on project this quarter

APPENDIX E-1

USING REINFORCEMENT IN COUNSELING

The following typescript is a verbatim transcription of one thirty-minute small group counseling session. The group leader, implementing the counseling role, was a male resident assistant for one of the university living halls at Oregon State University in 1965. The group was made up of four male participants. Three of the participants were eighteen years of age and were freshmen. One participant was a junior, 20 years of age. All participants had requested to be in the group, and had stated that they wanted to improve their study habits and achieve greater scholastic success and personal satisfaction from their university experiences.

In this session, the goal was to help the participants increase motivation for successful performance and academic accomplishment, by having them identify values of a college education in terms of their own circumstances and futures. In subsequent sessions, held weekly over an eight-week period, the group sessions focused on the kinds of study behaviors which would be most likely to be associated with success in academic achievements.

L-1 This is Dan Murphy. Special Study Group. Poling Hall 4th floor. Session no. 1. Will you fellows introduce yourselves?

P-1 My name is Mike Thompson.

L-2 Mike Thompson.

P-2 Terry Fristen.

L-3 Terry.

P-3 Terry Crook.

P-3a Rick Murata.

L-4 Another Terry and Steve. I think I talked to all of you didn't I about Special Study Project? It's a project that is started to help students....to give you a positive attitude towards your work and to give some general policy attitudes towards everything else. Did you guys think over this topic? Have any ideas?

P-4 This sounds kind of trite but maybe it's reasons why we come to college or why I come....?

L-5 That's pretty sharp....that's what it is.

P-5 Is that right?

L-6 Is that right? What did you think it was?

P-6 I thought it was working competently.

P-6a I thought it was working condition.

L-7 Well Mike is right. The topic for tonight is "Why College?" Got it pretty fast. Tell me Mike. You've got this all figured out. Why do you think people go to college?

P-7 Well I think the reasons vary. I know there are a lot of people that I see around here that seem to have the idea that this is the place to go so you can get a reasonably well paying job, live in a reasonably nice house and drive a reasonably nice car.

L-8 I see. Good.

P-8 And other people....I don't know....they seem to be here to learn something about themselves and then a lot of people just don't know why they're here.

L-9 Yes. What did you think?

P-9 Well, I agree with Mike that there is some stereotyped idea that everybody has.

L-10 What did you think Crook?

P-10 Well, I think that just about covers it except for a few people I've noticed around campus who come to college to merely....as a status symbol. I mean look at me. I'm a jock. I come to college. That makes me good. Then another guy....I don't know....he comes just so he can think 'I'm a little above average'.

L-11 I see. I agree with you. Terry, what are some of the values of college?

P-11 What are some of the values of college?

L-12 Ya, what are some of the values?

P-12 Well, I think one thing is that you're meeting new people and meeting people from different parts of the world and different parts of the U.S. You're able to, you know, broaden your horizons.

L-13 Sure. Rick, what do you think about this?

P-13 Well, in high school where you learn the basics of study you get pretty much a general education. College gives you a wide diversity of opportunities and things to learn about different places and different subjects.

P-13a Sure, I agree with you.

L-14 That's good. Mike what do you think about some of this?

P-14 I don't know. I always viewed college as sort of a place where I could find myself.

L-15 Find yourself?

P-15 Ya, find myself. You know....in high school....I don't know....you have an idea of what you want. You come to college and it's just the idea of getting into all of this. What you bring as your talents and what interests you and what you would give. And a lot of guys feel that now that I'm here and my major is science, well that's it. That is self-centered. I'd like to be a doctor but I'd like to leave enough leeway so that if I....say I take an art course and find out I'm not going to be a doctor....enough leeway so I can make it a kind of period where I can actually find out who am I. You know.....how do I fit in?

L-16 Helps you make up your mind, then, you feel.

- P-16 Ya. I don't know. I'm to the point right now. I don't know. I don't like the way things are. I'm sort of toying with the idea of leaving this section of the country or staying here and trying something else.
- L-17 I see. You feel then that college is a place for finding yourself. Rick, what does a college education mean to you?
- P-17 Well, it will mean that I'm more fit to enter into the world of business which is my major.
- L-18 Ya, Rick.
- P-18 Then I'll be able to communicate with people on their level or mine and be able to give people a better....
- L-19 Sure, Rick.
- P-19 I feel it enables us to meet the responsibility that is given to each of us. Be more equipped to meet the responsibility that is given to us and be able to have successful and happy lives.
- L-20 Good. What does college mean to you?
- P-20 Outside of the courses, the idea in college....I think there is a lot of other things in college, like people to people. It's a whole garden of your ideas about everyone else.
- L-21 That makes sense. Is this why you're in education?
- P-21 Yes. I mean it's over and above all the knowledge and skills that you learn that will be able to help you get on better later. Over and above this. This is really an enrichment of yourself like with music. I'm a clod about music and I know I'm a clod.
- L-22 I see. Sure. Why did you come to O.S.U.?
- P-22 Well, I've looked into the pre-dental program. I talked to three dentists who come from O.S.U., and they thought it was a fine school....
- L-23 I agree.
- P-23 for pre-dental and so I came here. They have fine schools in Oregon and also in California where I come from. But I think Oregon is better.

L-24 Yah. Rick. Why did you come to Oregon State?

P-24 It was a convenient place being in Oregon and being.... you know....a true, blue fellow. It seemed to have all the courses I wanted and seems to have a pretty good reputation.

L-25 Good point. Did you come here for any particular reason?

P-25 Well, I wanted to go to a medical school in Oregon.... and it was cheaper....it was cheap.

L-26 Uh huh. How do you plan to use your degree?

P-26 What do you mean exactly by use?

L-27 When you get out of school, are you going to use it and how? I mean, they're going to give you a degree and what then?

P-27 I'll go to medical school for four years. I'd like to specialize in psychiatric medicine.

L-28 Ya. Good.

P-28 Except it's the wrong layout. Well think of it.... this degree is going to enable me to go where I want to go, do what I want to do which is to be a dentist, do what I want to do and well....and other ideas that help people rather than just fill teeth. That is the big idea you know.

L-29 That is good. Rick can you give us any ideas as to how you're going to use....

P-29 Well what I plan to enter, I don't really need a degree. If I was old enough now I could become an insurance adjustor, but as I'm not, a college education will give me an opportunity to find out what people want and what they need and give me a chance to find out what life is all about.

L-30 That is good. You feel that is what you're doing? That's what you will do with your college degree. What do you think college has to do with success in a job career?

P-30 Well that depends on the college itself. You have a college A and college B. The college A has a better group of facilities over college B. Their students will be more qualified for the field than college B.

L-31 What do you think just college has to do with a job career?



- P-31 As I understand it, in order to have a good job now you need a college education.
- L-32 Mike, what do you think that college has to do with success in a job career?
- P-32 By success do you mean material success? I view it as a time of preparation for a job. You can't just go out and say, 'Come on I'm a doctor and I'll cure all your ills'....If I go to a doctor, I want someone who has been through the mill and knows what he's doing.
- L-33 I'm sure.
- P-33 I feel that if you want to do something bad enough that you owe it to the people who you come in contact with to go to college. That is my idea of success. It plays all the part in success.
- L-34 Rick, what do you think college has to do with success in a job career?
- P-34 Well, two things. The insurance and the respect your opinion brings. You will probably find out what is best for them and they will know it. Then not only for that, but for self-fulfillment. You know that you have gone through college not because it was necessary, but because it was something you have always wanted to do. That in itself would be a lot of inspiration.
- L-35 I see. That's fine. That is really good. Do you think college has everything to do with success?
- P-35 Not really. After you get out of college you have to know how to apply yourself and your knowledge.
- L-36 Ya, that is what I say. Exactly.
- P-36 Ya. If you have a profession that has to have a certain skill, and I'm not saying one is better than the other, then you have to know something about it.
- P-36a I think that the people who go to college are already a little bit on the move. They are kind of....it may be a little bit of effort to get there, but they're better equipped than the average guy.
- P-36b I don't think it's the kind of college but the type of people who go to college.
- P-36c Actually more people that I know who succeed have a college degree.

- L-37 Well, maybe we should summarize what we've said. Terry, 30 seconds. What do you feel we've discussed?
- P-37 Well, we discussed why college is necessary. We all had the same idea that to go anywhere in life we need a college diploma and that college is a necessary item. It is needed in order to fill out our lives....to go up the ladder.
- L-38 Right.
- P-38 I agree.
- L-39 Well, very fine. I think we've gotten a good start talking about these things. I think we've gotten some good ideas, and that we really accomplished something for this study group. I'll send out reminders for next week. I'll stick them in your mailboxes this quarter. The next session will be next week. Thank you fellows very much for a good turnout. Let me know next week how you used any of the ideas we talked about tonight. See if anything comes up during the week that you can point to and say, 'This has helped me to know myself a little better,' or 'I see how this course is going to be important in getting me ready for that life of good living, a good income, a good job, or 'This experience was a good one for getting to know more people or know about different things or places.' Well, fellows, thanks for a good session. See you next week.

NOV 16 1966

APPENDIX F

RESEARCH COORDINATING UNIT
OREGON STATE UNIVERSITY
317 EDUCATION HALL
CORVALLIS, OREGON 97331

104

STUDY HABITS INVENTORY

PART I

DIRECTIONS: Following is a list of 100 statements concerning study habits. Using the key below, answer each item on the IBM sheet by marking the numbers corresponding to the statement which most nearly describes your present behavior.

ANSWER EVERY ITEM. MARK ONE RESPONSE TO EACH ITEM. MARK ON ANSWER SHEET ONLY.

USE THE FOLLOWING KEY

1. I hardly ever do this.
2. Sometimes I do this.
3. Frequently I do this.
4. Most of the time I do this.

SSP G 10 1 66

PART I SHI -- Page I

1. Do you average eight hours sleep a night?
2. Do you get some kind of physical exercise regularly?
3. Do you have definite periods for recreation?
4. Do you use a daily schedule?
5. Do you have a regular place to study?
6. Do you study during the day?
7. Do you schedule study close to classtime?
8. Do you schedule term reports and special projects?
9. Do you schedule weekly reviews?
10. Do you schedule social activities to balance study?
11. Do you allow break time from study?
12. Do you study when you will be least distracted?
13. Do you schedule study time from the start of the term?
14. Do you schedule time for the unexpected?
15. Do you make a flexible schedule?
16. Do you follow a schedule?
17. Do you schedule study time just before class?
18. Do you schedule daily reviews?
19. Do you make a written schedule?
20. Do you stick to a schedule?
21. Do you keep your notes in a notebook?
22. Do you keep plenty of paper on hand?
23. Do you take notes in ink?
24. Do you have a system for taking organized notes?
25. Do you concentrate on the lecture?

26. Do you write down formulas and equations accurately?
27. Do you space notes so they are not crowded?
28. Do you look up things you don't understand?
29. Do you organize notes so major headings stand out?
30. Do you keep notes separated by courses?
31. Do you rewrite or retype notes?
32. Do you review your notes daily?
33. Do you review your notes weekly?
34. Do you underline important points?
35. Do you know the important points to write down?
36. Do you use some kind of shorthand for notes?
37. Do you avoid doodling on the page of notes?
38. Do you borrow other student's notes?
39. Do you check your supplies, including paper, pen, pencils, etc., before you begin to work?
40. Do you take notes from reading assignments?
41. Do you sit either at a desk or table while reading?
42. Do you choose a quiet place to study?
43. Do you study your most difficult subject first?
44. Do you have a purpose for each assignment?
45. Do you skim the chapter for an overview first?
46. Do you review at regular intervals?
47. Do you keep notes of main ideas from outside reading?
48. Do you build a list of unfamiliar terms?
49. Do you take regular breaks when you are reading?
50. Do you read tables, charts, graphs?

PART I SHI -- Page 3

51. Do you discuss with others what you have just read?
52. Do you underline important points as you read?
53. Do you make notes in the margin of your book?
54. Do you outline main points of reading assignments?
55. Do you turn the heading of each section into a question?
56. Do you try to increase your reading speed?
57. Do you read the summary before reading the entire assignment?
58. Do you skim before reading an assignment?
59. Do you read the preface of a book?
60. Do you read the Table of Contents before reading a book?
61. Do you schedule time for writing papers?
62. Do you limit the topic of a paper?
63. Do you think of the title as a question?
64. Do you make bibliography cards?
65. Do you include all publication data on cards?
66. Do you make note cards?
67. Do you separate your note cards by topics and ideas?
68. Do you make an outline before you start to get data?
69. Do you include introduction, main section, conclusion?
70. Do you make footnotes?
71. Do you write a rough draft?
72. Do you make corrections on the rough draft?
73. Do you make a bibliography for each paper?
74. Do you make sure your final copy is typed?
75. Do you include a Table of Contents in your paper?

PART I SHI -- Page 4

76. Do you set off major topics in your paper?
77. Do you proofread final copy?
78. Do you finish papers a few days before due?
79. Do you hand in papers on the due date?
80. Do you give credit where credit is due?
81. Do you try to figure out test questions in advance?
82. Do you review periodically during the term?
83. Do you attempt to find out the kind of exam you will have?
84. Do you recite to yourself when going over notes?
85. Do you make up sample questions?
86. Do you review quizzes to find your mistakes?
87. Do you make use of all available tests previously given in a course?
88. Do you make a master outline of all main points?
89. Do you write out answers to sample questions?
90. Do you follow directions exactly?
91. Do you budget your time during exams?
92. Do you include introduction, main part and ending to essay?
93. Do you check your test answers before handing them in?
94. Do you answer easiest questions first?
95. Do you guess if you don't know the answer?
96. Do you watch for key words like "always?"
97. Do you leave your first answers on objective tests unchanged?
98. Do you finish exams in the time allotted?
99. Do you make an outline before answering essay questions?
100. Do you read all essay questions before you begin to write?

APPENDIX G

DEVELOPMENT OF STUDY HABITS INVENTORY

I. Development

Development of the Study Habits Inventory was started in 1963 and involved review of related literature, compilation of initial pool of items describing study behaviors of students considered scholastically successful and those considered scholastically unsuccessful, as determined by grade point average. Following compilation of the initial pool of items, pre-testing and item analysis were performed, with results forming bases for instrument revision and refinement. The final phase in instrument development involved pilot testing, determining reliability and validity, and panel review.

The initial pool of items was compiled from survey of related tests, interviews, and results from research on relation of study behavior to scholastic achievement. A total of 175 items was compiled. Prior to pre-testing a panel reviewed the items to identify weak, ambiguous, or irrelevant items. Following panel review, 19 items were eliminated and 60 items were subjected to wording modification.

At the beginning of winter quarter, 1964, the 156 item test was given to 40 students enrolled in educational psychology. There were 20 scholastically successful students, with accumulative GPA of 3.5 or above and 20 scholastically unsuccessful students, with GPA of 2.0 or less. No significant differences obtained between the high and low GPA Ss on age and sex variables. Results of the SHI testing indicated that half of the 156-item test differentiated between high and low achievers. These items (78) were retained. Twenty-two items were added, making a total of 100 items on the test. The items were distributed among areas of study behavior including making schedules, taking notes, reading effectively, writing assignments, and preparing for examination.

A three-phase pre-test was given at the end of fall, winter, and spring quarters in 1964-65 to 160 students. GPA was used as criterion. Correlation between GPA and SHI scores was found to be .23, significant at the .05 level ($r = .164, p < .05$). Item analysis, using high and low GPA as criterion, revealed that 84 items were significant at .05 level in differentiating between high and low achievement groups. Minor revisions in wording of items were made following pre-testing. Before using the test as criterion measure, a final panel review was made.

II. Reliability and Validity

Reliability coefficient was computed in 1964 by test-retest on a sample of 42 students enrolled in educational psychology, with two-week interval between test and retest. The test-retest coefficient was found to be .88. A second test-retest, made on 160 students participating in a counseling project in 1964, was designed to provide data for validating and determining reliability of the test. A coefficient of .92 was found on a two-week test-retest interval.

In the pretest the SHI, validated against grade point average, on 160 students was found to be .23, significant at .05 level. On a validation test on 160 students in 1964, correlation coefficient of .27, significant at .05 level, was found between SHI scores and GPA.

Two attempts were made to assess influence of social desirability factor and to determine extent to which SHI responses indicating student study behavior in fact described the actual study behavior of the student. A randomly selected group of students (N = 20) kept daily logs in the pilot testing phase of instrument development, and logs were subjected to code analysis according to study behaviors described in the SHI items. Correlation between diary-reported study behaviors and SHI responses was found to be $r = .75$. A second check was made by correlating participant observer reports of study behaviors of 20 randomly selected students from one residence hall with SHI results for these students. Correlation of $r = .62$ was found.

Correlation between SHI scores and Brown Holtzman SSHA was found to be $r = .30$ (N = 1194, $p < .05$). A coefficient of $r = .31$ was found between SHI scores and GPA (N = 1194).

III. Norms

A mean of 181.5, with standard deviation of 33.6, was found on basis of 1320 observations. Percentile norms for male and female Oregon State University students were determined. Norms are given in Appendix H.

APPENDIX H

Percentile Norms for Study Habits Inventory

N = 1320

Raw Score	Percentile	Percentile Band
251+	99+	99.5 -
246 - 250	99	98.5 - 99.4
242 - 245	98	97.5 - 98.4
225 - 241	95	92.5 - 97.4
215 - 224	90	85.0 - 92.4
204 - 214	80	75.0 - 84.9
201 - 203	70	65.0 - 74.9
187 - 200	60	55.0 - 64.9
178 - 186	50	45.0 - 54.9
172 - 177	40	35.0 - 44.9
162 - 171	30	25.0 - 34.9
146 - 161	20	15.0 - 24.9
127 - 145	10	7.5 - 14.9
99 - 126	5	2.5 - 7.4
86 - 98	2	1.5 - 2.4
< 86	1	0 - 1.4

APPENDIX I

OREGON STATE UNIVERSITY
SPECIAL STUDY PROJECT

CORVALLIS, OREGON
Education Hall 317

PARTICIPANT EVALUATION OF SPECIAL STUDY PROJECT: A

Date

Name

Will you please answer the following questions to give me some idea that might help in organizing other projects like yours? Please be truthful. Thank you.

1. Did you enjoy working on the Special Study Project? _____

2. In what ways has the Special Study Project been of value to you?

3. Would you like to be a Participant in a Special Study Project again? _____

4. Would you like to be a Group Leader for a Special Study Project next year? _____

5. What suggestions do you have for improving the Special Study Project?

6. Did the tape recorder bother you at all during the Weekly Project meetings? _____

7. Do you think you were acting any differently towards the end of the term than you were at the beginning? _____

If so, please explain.

8. Did the Group Leader influence your behavior in any way? _____

If so, how?

S65-66

APPENDIX J

Table 6. Residence hall characteristics.

Name of Hall	Sex of Resident	Capacity	Number of Individual Living Groups	Date Hall Opening
Buxton	Female	307	5	1961
Callahan	Female	369	5	1964
Cauthorn	Male	329	5	1957
Hawley	Female	329	5	1959
McNary	Male	373	5	1963
Poling	Male	329	5	1957
Sackett A, B	Female	220	2	1947
Sackett C, D	Male	220	2	1947
Snell	Female	363	5	1959
West	Female	311	5	1960
Wilson	Male	373	5	1964
Weatherford	Male	385	7	1928

Rates for multiple-room and board charges were the same for all halls except Weatherford, which had a three-quarter total charge of \$:743, compared to \$788 for the other halls.

APPENDIX K

Table 7. Age distribution of resident assistants.

Age	Sex	
	Male	Female
18	1	0
19	2	3
20	5	20
21	12	8
22	10	1
23	1	0
24	3	0
25	1	1
	N=35	N=33

Table 8. Distribution of resident assistants by sex and major field.

Major Field	Sex	
	Male	Female
Agriculture	4	1
Business and Technology	3	1
Education	5	9
Engineering	10	0
Forestry	2	0
Home Economics	0	10
Humanities and Social Science	4	4
Pharmacy	4	1
Science	3	7
	N=35	N=33

Table 9. Distribution of resident assistants by sex and grade level.

Grade Level	Sex	
	Male	Female
Freshman	1	0
Sophomore	2	2
Junior	8	23
Senior	18	8
Graduate	6	0
	N=35	N=33

APPENDIX L

Table 13. Mean Study Habits Inventory scores by sex, treatment and major field. N = 928

Major Field	Mean	Treatment	Mean	Sex	Mean
Agriculture	179.5	Specific Cue Reinforcement	194.9	Male	178.4
Business & Technology	181.9	General Cue Reinforcement	194.6	Female	191.0
Education	192.4	Active Control	175.4		
Engineering	175.8	Inactive Control	173.9		
Forestry	187.6				
Home Economics	191.0				
Humanities					
Social Science	182.1				
Pharmacy	193.6				
Science	184.6				

Table 14. Least squares analysis of variance of Study Habits Inventory scores by treatment, sex, and major field.

Source	df	SS	Var Est	F
Total	927	32,588,222.00		
Ss within groups	17	31,813,251.40	1,871,367.73	2197.43
Error	910	774,970.64	851.62	
<u>Within Ss</u>				
Mean	1	2,394,499.29	2,394,499.29	2811.72
Treatment	3	106,283.73	35,427.91	41.60
Sex	1	22,024.12	22,024.12	25.86***
Major	8	8,031.63	1,003.95	1.18
Treatment X sex	3	1,575.41	525.14	.62
Brown-Holtzman	1	48,600.42	48,600.42	57.07

*** p < .01

Table 15. Ss' adjusted mean Study Habits Inventory scores and adjusted post-treatment GPA by counselor and treatment.

Counselor	Ss' Mean SHI Scores	Ss' Mean GPA
1	173.83	2.06
2	185.83	2.20
3	202.23	2.34
5	195.35	2.40
6	204.99	2.20
7	188.01	2.16
9	206.34	2.32
10	191.35	2.39
14	193.43	2.13
15	178.16	2.54
16	188.71	2.46
20	194.95	2.18
21	184.23	2.26
22	189.32	2.26
23	198.78	2.09
24	196.64	2.26
25	184.58	2.28
26	176.75	2.33
28	190.49	2.38
33	195.06	2.25
34	190.27	2.22
35	198.21	2.20
38	196.55	2.36
40	203.15	2.36
41	193.43	2.47
42	190.75	2.08
43	171.50	1.82
44	177.04	2.14
46	176.94	2.31
47	189.06	2.07
48	184.09	2.05
51	178.59	2.08
52	190.35	2.47
53	196.53	2.10
54	182.54	2.22
57	188.75	2.20
58	191.22	2.21
59	193.28	2.21
60	176.19	2.47
61	180.86	1.89
63	200.55	2.28
65	178.89	2.18
67	183.20	2.45
Treatment		
Specific Cue Reinforcement	194.59	2.37
General Cue Reinforcement	195.54	2.23
Active Control	176.93	2.13

Table 16. Analysis of covariance for Study Habits Inventory scores and post-treatment GPA by treatment and counselor.

Item	Source	SS	df	Var. Est.	F
Study Habits Inventory Scores	Counseling Treatment, Adj..	37,747.29	2	18,873.65	24.96*
	Counselor, Adj..	39,903.34	42	950.08	1.25
	Treatment X Counselor, Adj.	123,834.83	84	1,474.22	1.95
	Error	291,969.06	386	756.40	
Post-treatment GPA	Counseling Treatment, Adj.	4.87	2	2.43	10.12*
	Counselor, Adj.	11.67	42	.28	1.16
	Treatment X Counselor, Adj.	27.00	84	.32	1.33
	Error	93.87	386	.24	

*p < .001

Table 17. Raw scores on Study Habits Criterion tests and mean GPA for non-volunteer subjects.

Subject	Study Behavior Scores		Grade Point Average		
	Pretest Brown Holtzman	Posttest Study Habits Inventory	Pre Treatment	Post Treatment	Change in GPA
1	15	199	1.07	1.67	+ .60
2	38	233	1.29	1.50	+ .21
3	29	202	1.38	1.71	+ .33
4	18	249	1.09	2.00	+ .91
5	29	211	1.06	1.60	+ .54
6	40	233	.80	1.85	+1.05
7	18	112	1.14	.87	- .27
8	36	218	1.63	2.73	+1.10
9	28	194	1.08	1.67	+ .59
10	38	218	1.29	2.14	+ .85
11	24	222	1.19	2.00	+ .81
Mean Score	28.45	208.27			

Table 18. Mean Study Habits Inventory scores by treatment and time for post-treatment and follow-up tests.

N = 40 in each cell

Treatment	Post Treatment	3-month Follow-up	6-month Follow-up	Summary
Specific cue reinforcement	181.22	189.25	200.90	190.46
General cue reinforcement	182.03	193.20	202.13	192.45
Active control	183.60	183.52	184.05	183.73
Inactive control	183.93	164.98	169.33	172.74
Summary	182.69	182.74	189.10	184.18

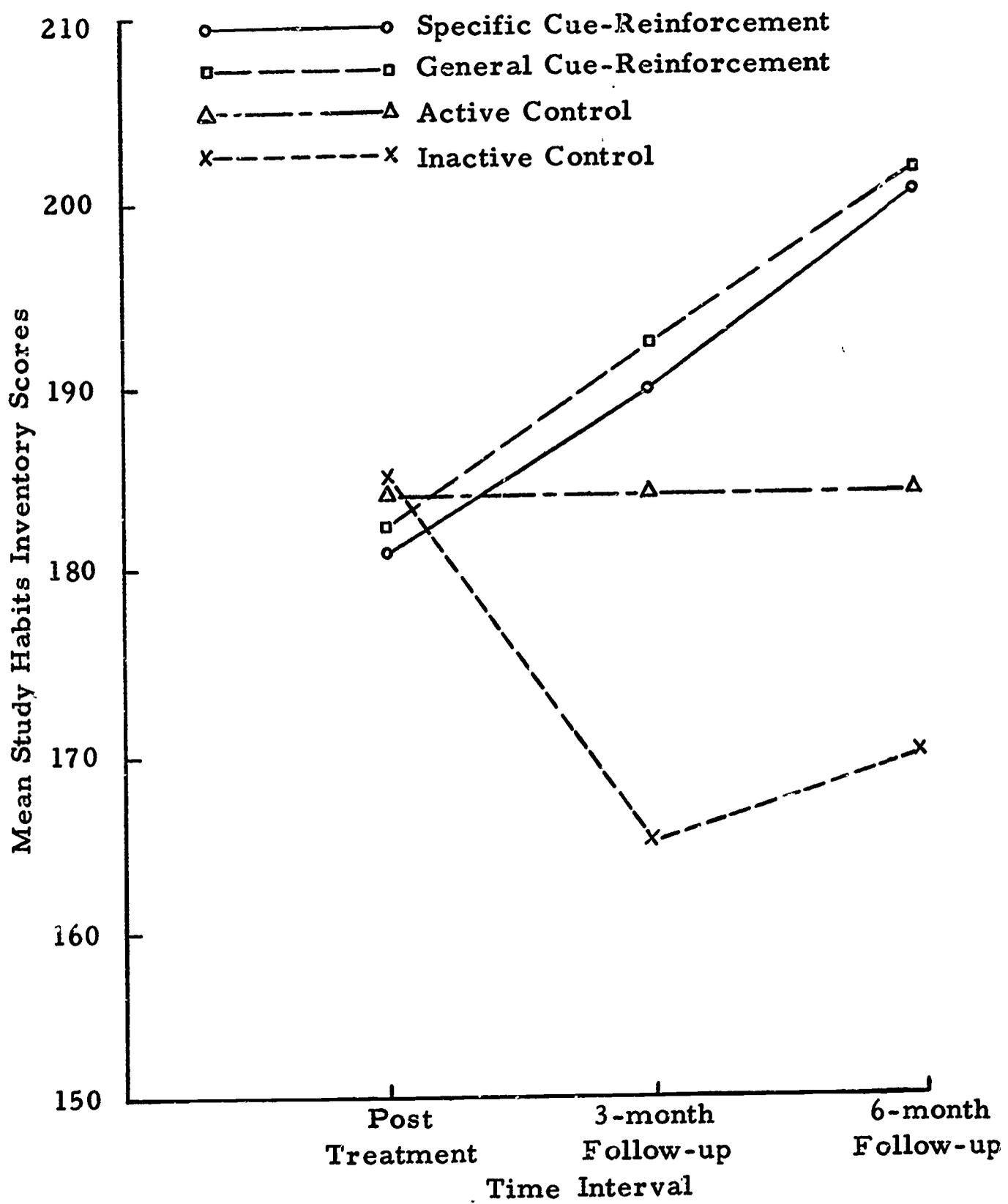


Figure 1. Relation between treatment and time on use of effective study habits.

APPENDIX M

Random Sample of Statements From Students Following Participation in Residence Hall Counseling Program

I. Statements From Participants in CR Groups

Other students' ideas have been very helpful. Wish I could have had this study program my first term at Oregon State.

The program has given me an opportunity to see how other students attack study problems.

I have increased my study skills and want to achieve greater academic success.

I have evaluated what I have been doing wrong and have introduced ways to correct my bad habits.

Studying has become more enjoyable and profitable.

Knowing that other students share the same problems concerning studying and college in general has been most comforting.

The ideas from the discussion sessions have encouraged me to take more lively interest in my subjects.

Session on organization of time and materials has been invaluable.

The project has especially helped me to prepare for tests.

In general my college experience is more meaningful.

I have learned ways of improving study habits. Now I plan to apply these ideas.

I wish this project could be made available to all first term college freshmen.

The leader did a good job of keeping us on the subject.

II. Statements From Participants in R Groups

Now I realize some of my study faults.

I have some concrete ideas for improving my study habits.

I find budgeting my time has been most beneficial.

The discussions have stimulated me to work harder.

Now that I have a schedule and have learned to take better notes, studying for tests has been easier.

The discussions have given me a new outlook on college and helped me to mature.

I have had an opportunity to know students I otherwise may never have known.

The project has made me more conscious of improving my grades and myself.

I have become less aware of grades and more aware of gaining knowledge.

Now that I have learned to settle down and study I am enjoying school much more.

The leader made us feel our ideas were worthwhile.

III. Statements From Participants in P Groups

My outlook toward study and classes has generally improved.

I wish the leader would have taken more of an active part.

The project has helped me develop self confidence.

The discussions have generally helped me adjust to college academics.

My respect for the leader made me want to please.

The leader only introduced the topic.

I am beginning to take school more seriously.

The leader made us think on our own and encouraged participation of all.

I learned how to communicate with other students.

In later sessions I felt more free to speak and was contributing more to the discussion.

I have become more aware of the values of college education.

I am more aware of good study habits and am trying to improve.

Table 19. Frequency of responses in six categories of attitudes to college success by counseling treatment and term of treatment.

Response Unit	Treatment												Summary
	Specific Cue Reinforcement				General Cue Reinforcement				Active Control				
	Fall	Wntr	Spr	Tot	Fall	Wntr	Spr	Tot	Fall	Wntr	Spr	Tot	
I have improved, plan to improve study habits, grades.	66	53	70	189	72	62	42	176	69	76	47	192	557
I recognize my weaknesses and feel better able to adjust to college.	20	7	19	46	21	25	13	59	22	8	15	45	150
I have improved my attitude to study; have better understanding of need for college, and/or greater incentive and motivation for doing well in studies.	16	14	11	41	14	19	17	50	18	4	12	34	125
I have ideas and/or information to use in planning and organizing my studies.	37	30	16	83	31	20	25	76	40	34	11	85	244
I have gained new friends, enjoyed peer relationships.	2	2	7	11	2	3	15	20	2	6	4	12	43
I have made no change in my study behavior; have no incentive to do well in college.	6	13	10	29	0	8	13	21	4	3	16	23	73
Term Summary	147	119	113	399	140	137	125	402	155	131	105	391	1192
Treatment Summary													

Table 20. Frequency of responses in three categories of attitudes to study by counseling treatment and term of treatment.

N = 696

Response Unit	Treatment												Summary
	Specific Cue Reinforcement			General Cue Reinforcement			Active Control						
	Fall	Wntr	Spr Tot	Fall	Wntr	Spr Tot	Fall	Wntr	Spr Tot	Fall	Wntr	Spr Tot	
Enjoy study	65	63	65	193	59	74	54	187	63	65	59	187	567
Like study "somewhat"	5	15	5	25	11	6	15	32	15	8	4	27	84
Do not enjoy study	6	6	2	14	2	4	7	13	2	7	9	18	45
Term Summary	76	84	72	232	72	84	76	232	80	80	72	232	696
Treatment Summary				232				232				232	696

APPENDIX N

Table 22. Mean GPA by sex, treatment, and major field.
N = 928

Major Field	Mean GPA		Treatment	Mean GPA		Sex	Mean GPA	
	Pre	Post		Pre	Post		Pre	Post
Agriculture	2.05	2.18	Specific Cue Reinforcement	2.03	2.31	Male	2.14	2.27
Business & Technology	2.13	2.17	General Cue Reinforcement	2.06	2.21	Female	2.22	2.30
Education	2.18	2.30	Active Control	2.19	2.16			
Engineering	2.19	2.28	Inactive Control	2.42	2.46			
Forestry	1.85	1.85						
Home Eco-nomics	2.24	2.42						
Humanities								
Social Science	2.09	2.22						
Pharmacy	2.20	2.24						
Science	2.30	2.42						

Table 23. Least squares analysis of variance of GPA by treatment, sex and major field.

Source	df	SS	Var. Est.	F
Total	927	5,264.99		
Ss within groups	17	5,013.25	294.89	1066.00
Error	910	251.74	.28	
<u>Within Ss</u>				
Mean	1	22.80	22.80	82.44
Treatment	3	8.20	2.74	9.89***
Sex	1	1.40	1.41	5.09*
Major	8	5.04	.63	2.27
Treatment x Sex	3	1.95	.62	2.35
Accum. GPA	1	134.24	134.24	485.27

p < .001

*
p < .05

APPENDIX 'O

OE 6000 (9-65)

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15. ABSTRACT (250 words max.) Purposes of this study were (1) to test effects of reinforcement counseling on students' study behavior, attitudes to college success and study, and academic achievement; and (2) to evaluate use of non-professionals in a planned residence hall counseling program. The study was conducted in a naturalistic setting with resident assistants implementing counseling roles in residence halls. Three response classes constituted dependent variables for the study, Ss' use of effective study habits, attitudes to study and college success, and performance in courses, with reinforcement counseling the primary independent variable. A pretest-posttest control group design with active and inactive controls and Ss assigned randomly to treatment conditions was used. Sample consisted of 928 students. Four treatment conditions were (CR) specific cue-reinforcement; (R) general cue-reinforcement; (P) placebo groups; and (C) inactive controls. Predictions that Ss in reinforcement counseling groups would have higher scores on criterion tests for use of effective study and scholastic performance than control Ss were confirmed through analysis of variance techniques. Significant treatment effects were not qualified by differences in sex and major field of Ss, or counselor differences, attitudes to counseling technique or counseling practice. The prediction that modification in study behavior as a function of reinforcement treatment would generalize over time was confirmed by significant differences between treatment conditions in a 6-month follow-up. The prediction that Ss under reinforcement counseling would develop more favorable attitudes to study than control Ss was not confirmed.							
16. RETRIEVAL TERMS (Continue on reverse)							
behavioral counseling reinforcement counseling non-professional counselors residence hall counseling study habits group counseling							
17. IDENTIFIERS Special Study Project							

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