1984

An investigation of the motivational-study skills-self-regulatory skills model for improving academic competence in community college students

Okey Rex Evans

*College of William & Mary - School of Education*

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AN INVESTIGATION OF THE MOTIVATIONAL--STUDY SKILLS--SELF-REGULATORY SKILLS MODEL FOR IMPROVING ACADEMIC COMPETENCE IN COMMUNITY COLLEGE STUDENTS

The College of William and Mary in Virginia

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AN INVESTIGATION OF THE
MOTIVATIONAL--STUDY SKILLS--SELF-REGULATORY SKILLS MODEL
FOR IMPROVING ACADEMIC COMPETENCE
IN COMMUNITY COLLEGE STUDENTS

A Dissertation
Presented to
The Faculty of the School of Education
The College of William and Mary

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

by
O. Rex Evans
September 1984
APPROVAL SHEET

We the undersigned do certify that we have read this dissertation and that in our individual opinions it is acceptable in both scope and quality as a dissertation for the degree of Doctor of Education.

Accepted September 1984 by

Fred L. Adair, Ph.D., Chairman

Kevin E. Geoffroy, Ed.D.

Charles O. Matthews, II, Ph.D.
Dedication

This study is dedicated to the memory of my parents who taught me much about life in the time we had together. Also, I dedicate this work to Jane, my wife, who has so lovingly supported me through this process and with whom I share so many experiences in life; and to John and Mary Beth, our children, who give our lives special meaning.
ACKNOWLEDGEMENTS

The completion of this dissertation represents a significant milestone in my life. I do not intend to extol the many virtues of those who have offered encouragement and other assistance along the way. To those people I extend my heartfelt thanks.

As a doctoral candidate I am greatly indebted to the members of my doctoral committee. I have learned much from each person. Dr. Fred Adair, my major advisor, has offered sage counsel, extended to me his friendship, and served as a mentor. Dr. Kevin Geoffroy has helped me to keep a sensible perspective about graduate study, the importance of setting goals, and the necessity of meeting deadlines. Dr. Chuck Matthews has freely shared his collective wisdom in understanding counseling from the essence of process to the manifestation of oneself.

I express my gratitude to the administration of Thomas Nelson Community College for granting approval to conduct this research project at our institution. I extend special thanks to Dr. Mike Quanty and Mr. Richard Parker for their guidance in conducting the research and the data analysis. To my colleagues in the Counseling Center, I say thank you for your support in helping me initiate the project. A special note of thanks to friend and colleague, Bob Abdo, who helped me accomplish some of the intricacies of field research and provided essential professional service to our
students during the past year. Also, I appreciate the assistance of Ms. Adrienne East in accessing essential student information.

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To Fern Marth whom I consider "the best" typist, I express my sincere gratitude for the professional service she has rendered in typing this dissertation.

Lastly, I extend my heartfelt appreciation to the 93 students at Thomas Nelson Community College who willingly participated in this research project and thereby significantly contributed to this effort aimed at promoting student development within the community college.
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Chapter 1
Introduction

Statement of the Problem

The purpose of this study is to investigate the effectiveness of a multicomponent model for developing effective study skills in college students. The study focuses specifically on a proactive student development program designed to improve the academic competence in community college students through participation in an expanded orientation course that targets on the development of effective study skills. In general, community college students have been viewed as representative of more diverse, non-traditional college students. Cross (1971, 1976) points out that community college students bring to higher education adult learners who come from a variety of socio-economic levels, ethnic backgrounds, and academic preparation. These non-traditional students or "new students" often enter the college classroom without sufficient study skills and basic skills in the areas of reading, English, and mathematics. Programs in remedial or developmental education are usually offered these non-traditional or "new students" in an attempt to develop the necessary basic skills to enable them to further their formal education. For many of these students, the development of effective study skills could represent an essential factor that contributes to their successful adjustment to college and to their overall academic competence.
Much research has been conducted in the area of study skills as attested to by several major literature reviews (Entwisle, 1960; Bednar & Weinberg, 1970; Mitchell & Piatkowska, 1974; Kirschenbaum & Perri, 1982). Despite the widespread use of study skills programs there seems to be differing opinions concerning components of successful programs. Aimed at improving the academic competence in adults, Kirschenbaum and Perri (1982) present a potentially heuristic model consisting of three components: Motivational--Study Skills--Self-regulatory Skills. An attempt was made by this researcher to answer the question "To what extent does a structured multicomponent program of study skills affect the academic performance, study habits, study attitudes, and locus of control of community college students?"

**Need for the Study**

A thorough review of the literature on study skills research reveals that almost exclusively samples of subjects have been drawn from four-year college or university students. Such Ss would be more typical of the traditional college student both in age and general academic background than would the community college student. Examining the research studies covered in the major literature reviews (Entwisle, 1960; Bednar & Weinberg, 1970; Mitchell & Piatkowska, 1974; Kirschenbaum & Perri, 1982) reveals widespread use of study skills programs at four-year colleges or universities. However, there appears to be a serious lack of research utilizing
community college students (Federico, 1972; Becherer, 1982).

With the "open admissions" policy of the community college, many students enroll in post-secondary programs of instruction despite previous academic difficulties, poor academic performance at the secondary level, or particular deficits in basic learning skills (Schuchman, 1974). For many of these non-traditional or "new students" participation in remedial or developmental education is necessary (Cross, 1971; 1976). Efforts directed toward developing effective study skills and study attitudes in these students seem warranted.

An analysis of study skills research often points out conflicting opinions with regard to characteristics of successful treatment programs. Mitchell and Piatkowska (1974) advocate unstructured, lengthy treatments. While Bednar and Weinberg (1970) also recommend lengthy treatments, they recommend structured programs as do Kirschenbaum and Perri (1982) who advocate structured, multicomponent interventions. With the apparent diversity in treatment programs, Mitchell and Piatkowska (1974) as well as Kirschenbaum and Perri (1982) suggest methodological refinements be incorporated in future research in study skills. Some of these are: better description of subject characteristics and of treatment procedures; specification of attrition rates; varied assessment procedures; and use of appropriate controls.
From the Kirschenbaum and Perri (1982) review, an analysis of the outcomes of the studies published between 1974 and 1978 appears quite favorable with regard to effectiveness of study skills programs. They conclude that structured, multicomponent interventions incorporating both study skills and self-control training represent the more effective treatment programs. They propose a three component motivational—study skills—self-regulatory skills model as representative of the ideal treatment program for improving the academic competence in adults.

**Theoretical Rationale**

The theoretical rationale for this study was drawn from the behavioral theory of self-control therapy and from the social learning theory of Julian Rotter. First, a delineation of behavioral self-control techniques which seem to represent the essential components of behavioral theory was presented. Secondly, the social learning theory of Rotter (1954, 1966) as pertains to the psychological construct of locus of control in individual behavior was described.

Mahoney and Arnkoff (1978) state that research on behavioral self-control techniques appears divided into four areas: stimulus control, self-monitoring, self-reward, and self-punishment. It is pertinent to examine each of these areas since they represent important aspects of behavioral theory of self-control therapy.
The stimulus control techniques rely on the cueing function of environmental events (Mahoney & Arnkoff, 1978). Much of the early research in this area focused on the role of discriminative stimuli in response patterning in animals such as pigeons. In certain situations, various stimuli function to preview or predict the consequences of different behaviors. In acquiring this discriminative function, such stimuli also appear to gain other properties that can influence response patterns. If a behavior has been repeatedly reinforced in the presence of a stimulus, presentation of the stimulus alone will increase the likelihood of the behavior. In essence, the stimulus has gained control over the behavioral response. This principle has been utilized in research involving a conditioning model and human subjects. Application to the area of study habits has been done by several researchers (Beneke & Harris, 1972; McReynolds & Church, 1973; Richards, 1975). However, Mahoney and Arnkoff (1978) state that in such research studies the stimulus control procedures have been combined with several others so that their independent therapeutic power cannot be estimated. With this point in mind, it is still important to posit the basic idea in stimulus control. The basic strategy is one of progressively reducing or eliminating the cues associated with undesirable behaviors and simultaneously expanding the stimuli that relate directly with more adaptive responses.
Self-monitoring has been identified as another area of self-control techniques. Mahoney and Arnkoff (1978) state that early research studies in this area have suggested that the act of recording a behavior often had a dramatic influence on the frequency of the behavior. However, the reactive effects of self-monitoring were not consistent across subjects or studies. Much of this inconsistency may have been due to the variety of factors left uncontrolled in the early research (Kanfer, 1970a, Kazdin, 1974).

Thoresen and Mahoney (1974) have offered the following generalizations with regard to self-monitoring:

1. Individuals are not "naturally" accurate self-observers. Training in the discrimination and recording of a behavior is essential. Such training may be enhanced by modeling, immediate accuracy feedback, systematic reinforcement, and graduated transfer of recording responsibilities (external to self).


3. As a measurement device, self-observation represents a crucial preliminary stage in successful self-regulation. The individual may need accurate data
on both his or her own behavior and relevant controlling influences before an effective self-change program can be developed.

4. As a treatment technique, the effects of self-observation are often variable and short-lived. Unless supplemented by additional behavior change influences (e.g., social reinforcement), self-monitoring does not offer promise in the long-term maintenance of effortful behavior.

5. The use of explicit goals may or may not enhance the effects of self-observation, depending on the nature of the behavior and the goals adopted (p. 63).

Mahoney and Arnkoff (1978) point out that self-reward or self-reinforcement is one of the most heavily researched procedures of behavioral self-control. Self-reward involves the self-presentation of rewards contingent on the performance of some desired response. This strategy has been drawn from laboratory research on operant conditioning but is distinguishable from such on the basis that in self-reward essentially the experimenter and subject share the same identity. Use of self-reward as a behavioral self-control procedure in clinical counseling situations was preceded by several years of laboratory research (Bandura, 1969, 1971; Kanfer, 1970b). It was demonstrated in these studies that subjects who were given control over their own reinforcing
consequences often matched prior external reinforcement schedules, and that their response rates were frequently comparable to those subjects who had remained on external reinforcement.

Kanfer (1970b, 1971) has formulated a three-phase model of self-regulation. In this model, the person must first self-monitor his or her performance. This focus of attention is often prompted by an event that marks a deviation from a state of normal functioning. This phase of self-monitoring is followed by a self-evaluation phase in which the individual compares his or her monitored performance to goals or standards based on prior learning. Self-reinforcement may occur if the performance matches or exceeds those goals. A substandard performance may evoke self-criticism or an attempt to repeat and improve the performance.

The final area of behavioral self-control mentioned is self-punishment. Mahoney and Arnkoff (1978) define self-punishment as a procedure in which an individual optionally self-administers some aversive stimulus or self-removes a positive stimulus contingent on the occurrence of some undesired behavioral response.

The development of a theoretical rationale for this study has also incorporated some of the conceptual framework of Rotter's social learning theory. The locus of control construct is central to this theoretical base for
it deals with internal-external control or expectancy of reinforcement and enables the prediction of goal-directed behavior in human subjects. According to Rotter (1954, 1966), the variables of behavior potential, expectancy, reinforcement value, and the psychological situation which comprise the basic predictive formula of the theory are used to explain the construct of locus of control. Rotter (1954) states:

When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively enduring characteristics, we have termed this a belief in internal control (p. 1).

The prediction of goal-directed behavior has been conceptually expressed by Rotter, Chance, and Phares (1972) in the following formula:

\[ BP \times s_1 \times R_a = f(E_x R_a s_1 \& RV_a s_1) \]
"The potential for behavior x to occur, in situation 1 in relation to reinforcement a, is a function of the expectancy of the occurrence of reinforcement a, following behavior x in situation 1, and the value of reinforcement a in situation 1" (p. 14).

Rotter and Hochreich (1975) point out that the aforementioned formula is somewhat limited in application since it deals only with the prediction of a specific behavior in relation to a single specific reinforcement. Such appears useful in testing hypotheses in highly controlled laboratory studies, but the application to more clinical settings requires a broader approach. Rotter (1954) states "Although the concepts of behavior potential, expectancy, and reinforcement value may occasionally be applied to the understanding of a specific symptom, the clinician is usually interested in the broader or more general concepts of needs, the more broadly described stable behavior patterns, and the identification of the effects of life situations" (p. 184). Therefore, Rotter presents the descriptive concepts of need potential, freedom of movement, and need value as the broader analogues of behavior potential, expectancy, and reinforcement value. Need potential refers to groups of functionally related behaviors rather than single behaviors. The theorist presents the concept as:

The mean potentiality of a group of functionally related behaviors' occurring in any segment of the
individual's lifetime is described by the concept of need potential. Such behaviors would be functionally related in that they had to (or are directed toward) the accomplishment of the same (or similar) reinforcements (Rotter, 1954, p. 184). Therefore, Rotter offers the following formula which may be used for more general prediction:

\[ NP = f(FM \& NV) \]

This formula states that the potential for the occurrence of a set of behaviors that lead to the satisfaction of some need (Need Potential) is a function of the expectancies that these behaviors will lead to these reinforcements (Freedom of Movement) and the value of these reinforcements (Need Value). In this formula, the situational construct is implicit (Rotter & Hochreich, 1975, p. 100).

According to social learning theory, the behavior of an individual is determined by his or her goals. An individual responds with those behaviors that he or she has learned will lead to the greatest satisfaction in a given situation. The goals or reinforcements pursued by the individual change as a result of experience (Rotter & Hochreich, 1975).

In essence, locus of control describes a theoretical construct which enables one to interpret how choices are made by an individual when presented with alternatives in a
given situation. This prediction of choice is based on the individual's perception of the expectancy of reinforce-
ment. Lefcourt (1976) posits that locus of control should not be regarded as a psychological trait, but rather as a cognitive/perceptual process.

The nature of the research problem which is the focus of this researcher's investigation draws upon the self-
monitoring and self-reward dimensions of behavioral self-
control training. These have a direct bearing on one of the three components of the motivational--study skills--
self-regulatory skills model which is the central focus of this study. Self-monitoring and self-reward procedures are used to develop the self-regulatory skills component of the model. The locus of control construct serves as a key variable under investigation in relation to the motivational component of the model. Thus, both behavioral self-control therapy and social learning theory comprise the theoretical rationale for this research investigation.

**Sample and Data Gathering Procedures**

The population for this study was 390 community college students who enrolled in a freshmen orientation course, General 100, during the Winter Quarter 1984 at Thomas Nelson Community College in Hampton, Virginia. This target population was representative of the 6,067 students who enrolled in credit courses for Winter Quarter
1984 (Student Enrollment Summary Report, 1984). The sample for this study consisted of 93 Ss who volunteered to participate in a student development program offered as an expanded orientation course. The E contacted each student enrolled in General 100 via letter (see Appendix A) extending an invitation to participate in a student development program emphasizing study skills development and career decision-making assistance. Students who expressed an interest in participating were contacted via phone to confirm their participation and were placed into one of four special, laboratory groups of General 100 that were designated as student development groups ($n_1 = 21, n_2 = 18, n_3 = 19, n_4 = 15$). Placement into these groups was based on the student's availability with regard to class schedule. A follow-up letter was used to confirm student's participation with whom the E had not been able to contact via phone (see Appendix B). Three of the groups were designated as experimental groups which received various treatments in study skills development. The fourth group was an "attention placebo" control which received information on career development. A fifth group, a "no-treatment" control ($n_5 = 20$), was formed from those students who expressed interest in the student development program but were not able to participate in the Winter Quarter. These students were placed on a waiting-list to participate in a similar program during the Spring Quarter 1984. The student development groups met for a 50 minute session per week for six to ten weeks.
The E had each S sign a consent form (see Appendix C) to participate in the study in which the individual agreed to fill out a brief demographic questionnaire (see Appendix D), engage in pretest-posttest assessment, and allow the E access to the academic records at the college. The E examined the following: questionnaire data gathered at the beginning of the study, pretest-posttest scores on the Survey of Study Habits and Attitudes and the Adult Nowicki-Strickland Internal-External Control Scale (see Appendix E), and grade point average as well as credit-hour persistence for Winter Quarter 1984 and Spring Quarter 1984.

**Definition of Terms**

In order to facilitate consistency in interpretation, terms important to the understanding of the research and discussion are operationally defined.

**General 100** is a one-credit course taken by community college students as a freshmen orientation to college. Institutional policies, procedures, and services are explained so as to assist students in the adjustment to college and in the pursuit of their educational and career goals.

**Academic performance** refers to a student's academic progress as measured by quarterly grade point average and credit-hour persistence.
Grade point average (GPA) is defined as a numerical average achieved by a student based on dividing the total number of grade points earned in courses by the total number of credits attempted. A quarterly GPA is the numerical average achieved by a student in an academic quarter.

Credit-hour persistence rate is a ratio of credits completed (with a final grade other than a "W" grade for a withdrawal or an "F" grade) to credits attempted in an academic quarter.

Academic competence refers to a student achieving "good academic standing" defined as a quarterly GPA of at least 2.0 out of a possible 4.0. For a student enrolled in a developmental course, academic competence refers to achieving an "S", satisfactory grade, which represents satisfactory completion of the course.

Study skills advice refers to a traditional treatment strategy to teach students in the "how-to-study" techniques of study reading, note-taking, and test-taking.

Self-regulatory skills training refers to a treatment strategy to train students in the behavioral self-control techniques of self-monitoring and self-reward. In self-monitoring the student learns to observe and record actual time spent in studying and the amount of material read over a given period of time. Self-reward is self-administered positive reinforcement.
Motivational instruction refers to a treatment strategy to help students gain an understanding of intrinsic/extrinsic motivation, goal-setting, and developing a positive self-image.

Study habits is a measure of academic behavior operationally defined by a composite score on the delay avoidance and work methods scales of the Survey of Study Habits and Attitudes (Brown & Holtzman, 1966).

Study attitudes is a measure of scholastic beliefs operationally defined as a composite score on the teacher approval and education acceptance scales of the Survey of Study Habits and Attitudes (Brown & Holtzman, 1966).

Locus of control is a construct found in social learning theory which describes the source from which an individual perceives or attributes reinforcement (Rotter, 1954).

Internal control refers to the perception that the expectancy of a reinforcement is contingent upon one's own actions or under the individual's personal control (Rotter, 1954). Operationally, a low score on the Adult Nowicki-Strickland Internal-External Control Scale indicates internal control (Nowicki & Duke, 1974).

External control refers to the perception that the expectancy of a reinforcement is not contingent upon one's own actions but rather is due to luck, chance, or fate beyond the individual's personal control (Rotter, 1954).
Operationally, a high score on the Adult Nowicki-Strickland Internal-External Control Scale indicates external control (Nowicki & Duke, 1974).

**Limitations**

The E presents the following limitations due to the sample studied, treatment procedures employed, and/or other methodological concerns:

1. Selection of the sample was based on those students at Thomas Nelson Community College who volunteered to participate in the study and possessed class schedules that enabled their placement into a student development group.

2. The sample of freshmen orientation students was not drawn on a random basis but was representative of the student population at Thomas Nelson Community College.

3. The length of treatments were restricted to a short duration (less than 10 hours total).

4. Although commonly used in study skills research, the use of a self-evaluative survey of study habits and study attitudes might have been susceptible to faked scores since it was dependent upon the student's frankness in responding.

5. The combined treatment procedures did not allow for a thorough assessment of the effectiveness of individual components.
6. This study involved only a one quarter follow-up to determine the short-term effectiveness of the treatments on academic performance.

**General Hypotheses**

The purpose of this study was to investigate the effectiveness of a multicomponent model for developing effective study skills in community college students. The research hypotheses were:

1. Increasing the number of study skills components students receive would improve their academic performance relative to comparison or control groups.

2. Increasing the number of study skills components students receive would improve their study habits relative to comparison or control groups.

3. Increasing the number of study skills components students receive would improve their study attitudes relative to comparison or control groups.

4. Increasing the number of study skills components students receive would increase the internal locus of control relative to comparison or control groups.

5. Increasing the number of study skills components students receive would sustain at least for one academic quarter their academic performance relative to comparison or control groups.
Plan of Presentation

This study is presented in five chapters. Chapter I contained the introduction, statement of the problem, need for the study, theoretical rationale, sample and data gathering procedures, definition of terms, limitations, and general hypotheses. Chapter II provides a review of the literature. Chapter III presents the methodology of the study which details the population and selection of the sample, procedures, instrumentation, design, specific hypotheses, and statistical analysis. Chapter IV describes the results of the study and includes a description of the total sample, preliminary data analysis, evaluation of hypotheses, comparison of pre-test and post-test differences, and end-of-group evaluation results. Chapter V contains a summary of the study, conclusions based upon the analysis of data, a discussion of the implications of the results, and recommendations for future research.
Chapter II

Review of Literature

The material in this chapter is organized into six major sections. The first five sections are presented with a critique following each major section; these include: (a) a historical and theoretical overview of the area of study skills, (b) a summary of the major literature reviews of study skills research, (c) presentation of the Motivational--Study Skills--Self-regulatory Skills Model, (d) a review of research related to the multicomponents of the model, and (e) a review of research on community college students. The final section of this chapter is a summary of research and relationship to the problem.

Historical and Theoretical Overview

The task faced by the researcher who is concerned with the development of effective study skills in students appears twofold. First, students need to gain knowledge about effective how-to-study techniques. Secondly, transmitting this information to students and persuading them to use it is also necessary (Beneke & Harris, 1972). Thus, knowledge and application might be succinctly stated as the objective or focus of an effective study skills intervention (Weigel and Weigel, 1967).

In general, there appears to be two basic approaches to developing and implementing a study skills program (Becherer & Evans, 1978). The purely academic approach
provides a systematic instructional process by which students are taught how-to-study techniques (i.e., taking effective notes, reading textbooks, taking tests, and managing time). The counseling approach, on the other hand, emphasizes the application of study techniques to a greater extent. It addresses omissions of the academic approach by considering the dynamics of underachievement, the differences in student motivation, and the application of study techniques to the individual student's academic endeavors. The counseling approach is typically administered via individual counseling sessions or structured group experiences rather than classroom instruction. An integrated approach has been described by Becherer and Evans (1978) which attempted to combine strengths from both the academic and counseling approaches through a team-teaching method utilized in an academic credit-based course in college study skills.

Efforts toward the development of effective study skills in students have received considerable attention. Three of the most comprehensive reviews of research studies that have focused on improving academic competence in students point to the diversity of intervention strategies used in the field of study skills and to the apparent confusion and lack of clear-cut agreement with regard to the analysis of the outcomes of such studies (Entwisle, 1960; Bednar & Weinberg, 1970; Mitchell & Piatkowska, 1974). Recently,
Kirschenbaum and Perri (1982) have attempted to address this problem by first comparing the aforementioned major reviews and then presenting an analysis of the outcomes of more recent research in the field by examining studies published in the 5-year period of 1974 to 1978. Kirschenbaum and Perri (1982) state "the evidence indicates that structured multicomponent interventions, particularly those incorporating both study skills and self-control training, often produces substantial gains in academic performance and behaviors relative to comparison and control conditions" (p. 76).

Critique of the Historical and Theoretical Overview

Study skills programs appear to have followed either a traditional academic approach which is primarily instructionally oriented or a counseling approach which involves individual or group counseling. The former approach appears more cognitively oriented and tends to focus more on the development of knowledge concerning how-to-study techniques. The latter approach seems to be more concerned with the application of skills, as well as, emphasis on motivational and other affective areas in the student's development. The approaches reflect more a diversity of intervention strategies than a common theoretical base. In theory, an integrated approach which draws upon the strengths of both the academic and counseling approaches would seem to offer greater promise towards achieving the objective of both knowledge and application of study skills. A program or
model that is structured and consists of multicomponent interventions seems to promote to a greater extent the development of study skills in students.

Summary of Major Literature Reviews

An examination of some of the major literature reviews of research studies in study skills appears relevant to develop a background for this investigation. A brief summary of four of the most comprehensive reviews (Entwisle, 1960; Bednar & Weinberg, 1970; Mitchell & Piatkowska, 1974; Kirschenbaum & Perri, 1982) is provided so as to highlight some of the most salient points found in the literature on study skills.

The earliest comprehensive review appears to be the one reported by Entwisle (1960). She examined a total of 22 evaluations of study skills courses to see how effective the programs were in improving study habits and in turn leading to increased academic effectiveness. Eighteen of the 22 studies involved college students, three investigations utilized high school students, and one enrolled medical students. In general, improvement in study habits and academic performance seemed to occur following students' participation in a study skills course despite the apparent diversity of courses. She states that the amount of improvement does seem related to whether or not students' participation was voluntary or required. She found the modal gain in scholastic performance was about half a letter
grade. Entwisle noted that all of the studies (100% reported results showing improvement in grades. She offered the following conclusions drawn from the evaluative investigations of study skills courses reported:

1. A study-skills course will normally be followed by improvement.
2. A course will be most beneficial for students desiring to take it.
3. Students wishing to take a study-skills course but prevented from doing so, and therefore presumably of comparable motivation to those enrolled, fail to show significant improvement.
4. Any gains noted will not necessarily be related to either the content or the duration of the course (p. 250).

Bednar and Weinberg (1970) reviewed 23 studies that evaluated the effectiveness of various treatment programs for underachieving college students. They reported that all of the studies used grade point average as the dependent variable and a specific treatment program intended to improve student academic performance as the independent variable. The treatment programs that were investigated included: individual counseling, group counseling, counseling in conjunction with remedial instructions, study skills courses, and guidance programs in conjunction with study skills courses. Bednar and Weinberg noted that 13
studies (57%) were successful in improving academic performance; six studies (26%) found trends toward effectiveness; and four studies (17%) reported inconclusive or negative results. They discovered that not all studies using similar treatment variables found a particular program to be effective; thus, it was difficult to isolate dimensions of programs contributing to success. Bednar and Weinberg, therefore, grouped studies together on the basis of variables that appeared to differentiate successful from unsuccessful programs. They stated that the following variables emerged as relevant treatment considerations: duration of counseling contacts, structured versus unstructured counseling, levels of therapeutic conditions present during counseling, and group versus individual counseling. From their analysis of the research studies, Bednar and Weinberg concluded:

"that the treatment programs associated with improved student academic performance were characterized as (a) structured rather than unstructured, (b) lengthy (lasting 10 hours or longer) rather than brief, (c) counseling aimed at the dynamics of underachievement used in conjunction with an academic studies program, (d) having high levels of therapeutic conditions (empathy, warmth, and genuineness), and (e) appropriate to the needs of the students" (p. 1).
Mitchell and Piatkowska (1974) reviewed 31 treatment studies of college underachievers and bright failing underachievers to evaluate the effects of group treatments on the academic performance of those students and to attempt to isolate variables related to improved academic performance. They noted that only eight studies (26%) reported significant group improvement in academic performance. Variables that were examined included the following: counselor experience, treatment type, treatment duration and structure, treatment targets, and client motivation. Mitchell and Piatkowska summarily stated that the "findings indicate that success rates were low and few clear relationships emerged between isolated variables and improvement in academic performance" (p. 494).

(a) Unstructured treatment may be superior to structured treatment for both underachievers and failing underachievers;
(b) lengthy treatments are superior for failing underachievers;
(c) treatment of nonvaluative students is seldom successful; and
(d) grade gains do not consistently accompany improvements in any behaviors established as treatment targets (p. 500).
Mitchell and Piatkowska (1974) suggest that future investigators need to develop treatment rationales that focus on more appropriate target behaviors. They suggest refinement of research questions and increasing the methodological control of subjects utilized in the research design. Also, they suggest that more specific descriptions of both client and counselor characteristics and of treatment operations should allow for replication of research investigations. Lastly, they recommend that improvement rates be based on number of individuals rather than on group averages and that researchers specify both the practical importance and limitations of their findings.

In the most recent comprehensive review of the literature on study skills, Kirschenbaum and Perri (1982) examined 35 studies that were published between 1974 and 1978. These studies used adult subjects and investigated the effects of an intervention on at least one academic measure as a dependent variable, either grade point average or grades in one or more courses. Kirschenbaum and Perri categorized the independent variables by identifying the type of intervention using the descriptors of: behavioral, general counseling, self-control, and study skills. They stated that an examination of the outcomes of the studies for that 5-year period appears to be quite favorable based on a box-score tabulation and an analysis of more than a dozen well-controlled investigations. The evidence indicates
that structured multicomponent interventions often produce substantial gains in academic performance and behaviors relative to comparison and control conditions. Interventions incorporating both study skills and self-control training appear to be representative of the more effective multicomponent treatment programs. Kirschenbaum and Perri cite the importance of using methodological refinements in future research in study skills. They offer five methodological recommendations that encompass the following general concerns: (1) description of subject characteristics, (2) specification of attrition rates, (3) assignment of subjects to conditions, (4) assessment of academic competence, and (5) use of appropriate controls and analyses. They point out that the methodological limitations must be considered in determining the ultimate value of interventions in the literature on study skills investigations. They assert that "relatively few studies have actually tested the effects of multicomponent interventions beyond the potentially powerful influence of credibility, expectancy, and related 'nonspecific' factors" (p. 38). They conclude that the current knowledge in the field of study skills seems to suggest that an ideal program designed to improve academic competence should be structured, but not necessarily very lengthy, and it should include training in study skills plus self-control. The researchers suggest that three promising
treatment adjuncts warrant further investigation: planning, problem-solving, and incorporating choice into study improvement programs. They assert that which elements of choice affect self-regulated behavior change and the maintenance of change remain to be discovered. Kirschenbaum and Perri conclude by proposing a three-component motivational—study skills—self-regulatory skills model as a potentially heuristic description of the process of improving academic competence.

Critique of the Summary of Major Literature Reviews

The four major literature reviews of study skills research (Entwisle, 1960; Bednar & Weinberg, 1970; Mitchell & Piatkowska, 1974; Kirschenbaum & Perri, 1982) present a comprehensive look at the status and development of study skills programs over a time span of approximately twenty years. It appears that a more refined analysis of the outcomes of various research studies has occurred during that period with the Kirschenbaum & Perri (1982) review providing the most detailed evaluation to date. Three of the reviews (Entwisle, 1960; Bednar & Weinberg, 1970; Kirschenbaum & Perri, 1982) seem optimistic with regard to the evaluation of the effectiveness of programs directed at improving academic competence. The review by Mitchell & Piatkowska (1974) appears to be the most critical of how effective study skills programs are in providing significant change in students' academic
performance. The latest two reviews (Mitchell & Piatkowska, 1974; Kirschenbaum & Perri, 1982) have attempted to point out some of the necessary methodological refinements needed to enhance the quality of future research investigations in the area of study skills. The reviews point to the apparent widespread use of study skills programs directed toward improving the academic competence of college students. Some confusion seems to exist, however, in identifying common characteristics of successful programs. In general, students' voluntary participation in a structured, multicomponent intervention program seems to produce effective change in the development of appropriate study skills and increased academic performance. The reviews collectively suggest the need for continued research in the area of study skills with greater attention given to the methodological considerations pertaining to subjects used in the investigations, specification of treatment interventions, selection of appropriate dependent variables, and utilization of appropriate controls and analyses. Evaluation of the effectiveness of multicomponent treatment programs is an area on which additional research efforts need to be directed.

The Motivational—Study Skills—Self-regulatory Skills Model

Kirschenbaum and Perri (1982) have proposed a three-component model of improving academic competence in adults: motivational—study skills—self-regulatory skills. Offered as a potentially heuristic description of the process of
improving academic competence, the model attempts to define and elucidate key dimensions in a structured, multi-component approach toward the development of effective study skills. The motivational component, Establishing Motivators, incorporates the following: perceived control, voluntary status or materially compensated participation, technologically oriented intervention structure, and positive efficacy expectations. The study skills component, Study Skills Development, involves: reading, note-taking, paper writing, test-taking, and frequent studying. The third component, Self-regulatory Skills Development, incorporates: a basic dimension of self-monitoring, self-evaluation, self-consequation, and stimulus control, as well as, a specialized dimension of planning and problem solving.

Critique of the Motivational--Study Skills-Self-regulatory Skills Model

Due to the recent development of the model by Kirschenbaum and Perri (1982), their three-component design is basically untested. The formation of the Motivational--Study Skills--Self-regulatory Skills Model appears to have been carefully derived from a thorough analysis of study skills research conducted during the period of 1974-1978. Thus, the model is based on research findings of the most recent, comprehensive literature review. Kirschenbaum and Perri seem to have identified key dimensions of effective
programs directed toward improving academic competence in adults. With regard to its application to various adult populations especially community college students its viability as a model is unanswered as a research question at this point. Although the model as formulated appears rather straightforward and simplistic, adequate delineation and control of the multiple facets contained in each of the three components may present researchers with a formidable challenge in testing the model. Specificity of each component would seem to be necessary in undertaking such research. Only through such specification and control would a researcher be able to investigate the true efficacy of the multicomponent model and enable one to examine both the interactional and additive effects of the model.

Review of Research Related to the Multicomponents of the Model

In this section an overview of research studies related to the multicomponents of the Motivational—Study Skills—Self-regulatory Skills Model is presented. The research studies reviewed are representative of the period from 1965 until the present. Salient features of the various studies are presented so as to provide a relevant background of research that would reflect the importance of the multicomponent model and the need for continued investigations in the area of study skills.
Chestnut (1965) conducted an experiment to compare counselor structured and group structured counseling groups with two control groups of underachieving male college students. The results indicated that those Ss in the counselor structured groups had a significantly greater rate of change in grade point average after counseling than the Ss in either the group structured or control groups. Also, the group structured counseling groups' rate of change were greater than the control groups after counseling. Chestnut also found at three months following counseling that the counselor structured groups' rate of change were significantly greater than the control groups, but not greater than the group structured groups. The researcher concluded that a counselor structured group experience can have both an immediate and delayed, even if somewhat limited, affect on the academic achievement of male college underachievers. The primary value of a more structured experience Chestnut states may be that its impact may be more readily carried over after the period of treatment by the underachiever whose motivation appears to be primarily extrinsic.

A study to compare the effectiveness of behavior therapy procedures against a traditional group counseling approach in the modification and treatment of the problem of college underachievement was conducted by Doctor, Aponte, Burry, and Welch (1970). Ss used in the study were male sophomores
identified as underachievers at a university. The group counseling approach focused on the student's attitudes and feelings associated with college performance and his interpersonal role within and without the group setting. Direct advice and suggestion for improvement of classroom study and test-taking habits were also presented. The focus of the behavior therapy group was on the role of maladaptive study and test anxiety. Techniques used in the latter group were relaxation training, hierarchy construction, desensitization, and suggestions for improving study methods. The researchers found no significant grade point average changes for the behavior therapy and counseling groups whereas treatment groups combined showed significantly greater improvement in grade point average than no-treatment volunteer and no-treatment non-volunteer groups. Results of pre-post assessment indicated that the two treatment procedures produced specific changes in behaviors that were focused on in each form of therapy.

Beneke and Harris (1972) investigated a self-control procedure designed to improve the study habits of 38 volunteer students enrolled in summer school at a university. Their program involved the use of stimulus control procedures, self-reinforcement, and punishment, as well as, a common study reading method. Students receiving the written lessons showed a significant gain in grade point average (GPA) for the three semesters following the study over the two preceding
semesters when compared to Ss not receiving the lessons. The researchers found no difference in GPA gains between Ss who had received and discussed the lessons in group meetings and those who simply received them in written form and asked to complete the lessons at their convenience.

Jackson and Van Zoost (1974) examined the self-regulated teaching of others as a means of improving study habits in college students. Subjects for the study were thirty university students enrolled in an eight-session study skills program. Study skills exercises were presented throughout the sessions and Ss used self-reward techniques. One group of students (n=15) were required to teach the contents of each session to a friend and then to self-assess and self-reward their teaching competence. The other group (n=15) constituted a non-teaching control. Results showed that all Ss reported significantly better study habits following the treatment program with a significant interaction indicating greater gains for the teaching Ss. A significant reduction in test anxiety was revealed for Ss in both groups.

Fremouw and Feindler (1978) conducted a study to compare a peer model and a professional model for teaching study skills to college freshmen. Seventeen freshmen in the professional model received 10 hours of traditionally oriented instruction in study skills. The professional model consisted of two groups of students who were presented materials in a
lecture-discussion format taught by graduate students who were trained and supervised by the Director of the University Reading Laboratory. In the peer model, freshmen were divided into 16 pairs of tutors and tutees. Students serving as tutors learned study skills in five 90-minute weekly seminars conducted by one of the researchers and a staff member of the University Reading Laboratory. Between meetings, the tutors individually taught these skills to the tutees. Subjects in both the peer model and professional model significantly improved study skills relative to an attention control group and a waiting-list control group. The researchers concluded that the peer model was as effective as the professional model in study skills change.

Fremouw and Feindler note that the peer model differs from traditional treatment approaches because specific behavioral techniques used in treatment and both participants share the same behavioral problem and desire change. They assert that a peer model may be more efficient than traditional programs for providing study skills training to large numbers of students.

Goldman (1978) investigated the use of an individualized, behavioral contract requiring students to identify nonproductive study behaviors and agree with their instructors on appropriate strategies for desired change. In a study skills course format, one instructor taught a contract group (n=18)
and a second instructor taught a second contract group (n=20). Each instructor also taught a noncontract group (n=19 and n=17). A group of 18 students taught by a third instructor acted as a control to check for experimenter effect. The Ss were university students (N=92) enrolled in six study skills classes. All three instructors were female graduate students in counseling psychology. Goldman found that contract students improved significantly more on self-reported attitudes toward study than either noncontract or control students. A follow-up study revealed that contract students gained better grade point averages and maintained this improvement for two years.

Richards (1975) investigated the efficacy of two self-control procedures as additions to study skills advice as the traditional treatment for college students' study behavior. The self-control procedures were self-monitoring and stimulus control. The researcher utilized as Ss university student volunteers from an introductory psychology course who had expressed a sincere concern about improving their study behavior. A between-subjects (N=108) pyramid design was used on the basis of entailing combinations of self-control procedures as treatment additions to the study skills advice. Two control groups were a no-contact control and a no-treatment control. The four treatment groups were: study skills advice, study skills advice plus stimulus control,
study skills advice plus self-monitoring, and study skills advice plus stimulus control plus self-monitoring. Treatments were delivered primarily via bibliotherapy (typed handouts). Results showed that self-monitoring was an effective treatment addition to study skills advice and stimulus control was not. All of the treatment groups combined were superior to the control groups which were equivalent. Richards also concluded that study skills advice seems to be a minimum prerequisite for positive behavior change.

Greiner and Karoly (1976) conducted a study to examine the relative efficacy of training in self-monitoring, self-reward, and planning as aids to self-control and its effects on study activity and academic performance. Subjects for the study consisted of 96 university students enrolled in introductory psychology classes who volunteered to participate in an experiment designed to improve study skills. The Ss were assigned to five treatment groups and a control group that received no treatment. The Ss in the five treatment groups initially received training in a standard study reading method. Then each treatment group received different degrees of training in the components of self-control. One group (information control) received further training in study skills (how to take examinations). A second group (information-expectancy control) received the same training as the first group but was also given the strong expectancy that
this program would result in better grades and study habits. A third group (information plus self-monitoring) was given the same training as the first group but were also taught self-monitoring skills. The fourth group (information plus self-monitoring plus self-reward) received the same training as the third group but also were taught self-reward techniques. The fifth treatment group (information plus self-monitoring plus self-reward plus planning) received the same training as the fourth group and also were given training in planning strategies and time management skills. The researchers found results that indicated neither training in self-monitoring alone nor in self-monitoring plus self-reward techniques yielded significantly better performance than training in study methods alone. The group that received training in self-monitoring, self-reward, and planning strategies significantly out-performed all other groups on nearly all dependent measures. Dependent measures included time spent studying, number of assigned study tasks completed, and change from pretreatment to posttreatment on quiz scores, grade point average, and a standard measure of study habits.

Richards, McReynolds, Holt, and Sexton (1976) investigated the effects of information feedback and self-administered consequences on self-monitoring of study behavior. The researchers state that self-monitoring involves systematic observation followed by self-recording. Subjects consisted of volunteer college students (N=87) who were concerned
about their study habits. The Ss were randomly assigned to a no-treatment control group, a study skills advice group, or one of six self-monitoring plus study skills advice group. The design of the experiment also included a no-contact control group (n=9) of non-volunteers. The researchers found replication of the previous finding that self-monitoring changes study behavior (Johnson & White, 1971; Richards, 1975). Also the researchers found that students lacking accurate information about the extent (i.e., amount) of their study behavior benefited more from self-monitoring than those who were already knowledgeable about their study behavior.

Richards, Perri, and Gortney (1976) conducted an experiment to explore the effectiveness of two procedures for enhancing the maintenance of self-control treatments: fading counselor contact and increasing information feedback. The researchers point out that in many counseling studies follow-up data indicate that clients have abandoned treatment procedures and their initial progress has deteriorated. Subjects used in the study consisted of volunteer college students who were concerned about academic underachievement (N=97). The design of the study utilized a bibliocounseling system involving four behavioral self-control groups, a study skills advice group, and a no-treatment control group. Also, a no-contact control group (n=21) of nonvolunteers was used. Both grade and questionnaire results revealed that
faded contact was superior to steady contact for enhancing treatment maintenance. The researchers found that increasing information feedback about treatment effectiveness did not affect maintenance. Also, the results showed that self-control and study skills advice groups were superior to control groups.

Another study to evaluate self-control treatments as strategies for enhancing treatment maintenance was conducted by Richards and Perri (1978). The experiment evaluated the behavioral problem solving and faded counselor contact as treatment maintenance strategies. Subjects were volunteer college students (N=69) who were seriously concerned about academic underachievement. The design of the study was similar to the one used by Richards et al (1976). The Ss were randomly assigned to a no-treatment control group, a study skills advice group, or one of four self-control plus study skills advice groups. Also, a no-contact control group of nonvolunteers (n=11) was used. Treatments were delivered via a combination of group methods and reading assignments. The major outcome measures used by the researchers were course exam scores and semester grade point averages, with follow-ups conducted 6 weeks, 12 weeks, and 1-year posttreatment. Results indicated that training in problem solving was an effective treatment maintenance strategy, while a brief fading counselor contact procedure was not. Also, results
indicated rapid posttreatment deterioration on the part of the no-maintenance strategy groups.

An investigation by Heffernan and Richards (1981) attempted to identify and evaluate naturally occurring (i.e., self-initiated) methods for self-controlling poor study behavior of university students enrolled in introductory psychology courses. The study was done in three steps: (a) successful and unsuccessful subjects (N=24) were interviewed about the methods they used; (b) some of these Ss (n=6) were observed as they studied in their natural environment; and (c) the successful methods identified in the previous steps were evaluated in a controlled treatment with a new sample of Ss (N=45). Self-control techniques identified in the earlier steps received some further support in the third step. Subjects were randomly assigned to a no-treatment control group, a standard treatment group which received training in the self-control techniques of problem solving and stimulus control, or a natural treatment group which received training in the self-control techniques of planned schedules and isolation. Both treatment groups also received some standard study skills advice (e.g., note-taking skills and a study reading method). Results found in Step 1 were: (a) successful Ss reported using more techniques and doing so more frequently and consistently than unsuccessful Ss;
(b) more successful Ss used self-reward procedures; and
(c) most successful Ss used some form of self-monitoring
and stimulus control. The results of the treatment study
in Step 3 suggested a modest treatment effect and a small
but statistically reliable difference favoring the natural
group over the standard group. Results at the end of a
7 week follow-up showed that the treatment effect had gained
in statistical significance.

The effects of specificity of planning in adult self-
control were examined by Kirschenbaum, Humphrey, and Malett
(1981) within the context of an 11-week study improvement
program. Subjects consisted of university student volunteers
(N=48) who were randomly assigned to three treatment condi-
tions: daily (highly specific) plans, monthly (moderately
specific) plans, and no plans. All groups reviewed self-
control and study skills techniques. The researchers reported
three major findings: (a) monthly planning, not daily
planning as predicted, increased study time and improved
study habits compared with the no-plan comparison interven-
tion; (b) the study improvement program improved grades
somewhat compared with controls; and (c) low grades (D+
average) students expected more but complied less than high-
grades (B average) participants. This research investigation
employed the use of a peer-facilitated model for teaching
study skills. Malett, Kirschenbaum, and Humphrey (1983)
describe the process of the selection and training of the
group leaders (peers), the specific goals for each session of the study improvement program and an overall evaluation of its effectiveness.

A study by Ramanaiah, Ribich, and Schmeck (1975) tested Rotter's hypothesis that internals would show more achievement-striving behaviors than externals using a direct measure of such behavior. The researchers administered Rotter's I-E scale and the Survey of Study Habits and Attitudes (SSHA) to male (N=123) and female (N=130) undergraduate students. Significant sex differences were found on the SSHA scales but not on the I-E scale. Results indicated significant differences between internals and externals within each sex in terms of the average SSHA profiles and the individual SSHA scales.

Critique of the Review of Research Related to the Multi-components of the Model

The research studies reviewed reflect the diversity, as well as, complexity of investigations conducted in the field of study skills. Efforts directed at improving the academic competence of college students have primarily involved 4-year college or university undergraduates who volunteered to serve as subjects in a study skills improvement program. Considering the traditional 4-year residential college or university setting, most Ss probably were representative only of the traditional college underachiever.
There is an apparent lack of research in the area with regard to community college or non-traditional college students. A research question could be formulated on how effective are study skills improvement programs applied to community college or non-traditional students?

There does appear to be several studies investigating the more traditional approach to facilitating the development of study skills (via study skills advice). Primarily the research studies have utilized a structured group format incorporating a traditional lecture-discussion method and in some cases a bibliotherapy approach was used. Several studies used both no-treatment and no-contact control groups. Although some studies have been directed at evaluating the effectiveness of a peer model for teaching study skills (Jackson & Van Zoost, 1974; Fremouw & Feindler, 1978; Kirschenbaum, Humphrey & Malett, 1981), further efforts are needed to identify and describe important characteristics of successful programs. More detailed descriptions of the process of selecting and training peer models, as well as, delineating specific treatment strategies (i.e., selected instructional materials) would be helpful in conducting additional investigations in this area. There also appears to be several research investigations into the effectiveness of self-control strategies in combination with study skills advice. However, further research studies are necessary to evaluate self-control techniques designed to
enhance treatment maintenance (Richards, Perri & Gortney, 1976; Richards & Perri, 1978). The motivational dimension seems to be a component requiring greater attention by researchers in the field. Several research questions remain unanswered. What are some of the more effective treatment strategies to employ with various college students? Which treatment strategies in a study skills improvement program provide students with a greater likelihood of maintaining improved academic performance? What are some of the critical factors affecting student motivation, acquisition of study skills, and improvement of academic performance?

Review of Research on Community College Students

A description of the population under study appears to be in order. Community college students have been depicted by Kelly and Wilbur (1970) as being "characterized by diversity. . . of all ages, abilities, philosophies of life, levels of knowledge, degrees of wealth or poverty, races, faiths or creeds, purposes, etc." (p. 38). Perhaps the one word that is most descriptive of community college students would be pluralism. Glass and Hodgin (1977) state that as a whole these students may be divided into two age groups: the traditional college age group of 17 to 21 and the non-traditional age group of 21 to 60 with about half in each group. Many of the community college students are married, at least half work part-time, and the majority come from
the lower middle-class and blue-collar families. Schuchman (1974) points out that a large percentage of these students are first-generation college attenders who come from families who, due to ethnic, racial, or economic considerations, had not sent anyone to college in previous generations. For many community college students, the "open admissions" policy enables them to enroll in post-secondary instructional programs despite previous academic difficulties, poor academic performance at the secondary level, or particular deficits in basic learning skills. In addition, the lower economic costs of attending a community college is a basic consideration of many students. Schuchman (1974) enumerates some of the special tasks faced by community college students who may collectively be described as commuting students. He states that for many of these students learning to deal with authority is an issue in that this means moving away from parental dominance toward an independent position. He asserts that for many of these students as they journey away from home and out of the neighborhood to the college campus they are involved in activities unfamiliar to their families. These students are expected to fill several different roles and still be proficient in managing their time and resources. As Glass and Hodgin (1977) point out, commuting involves travel time, selecting courses on the basis of travel convenience, reluctance to return to
the college campus for co-curricular activities, travel-related expenses as well as loss of physical energy.

In a comprehensive community college, students may pursue learning opportunities for a variety of reasons. Some students may be seeking to develop career-oriented skills. Other students may be acquiring lower division academic credit for later transferring to a baccalaureate degree granting institution or 4-year college. Some community college students are interested in enriching their educational experiences through continuing education opportunities such as by taking only selected courses on either an academic credit or credit-free basis. This latter group provides a profile of continuing education students as citizens of the community who spend what might otherwise be leisure time to improve their socio-economic position through further education (Cross, 1981).

As O'Banion (1971) emphasizes the mission of the community college as "truly the people's college, it must provide its increasingly diverse student population with meaningful learning experiences" (p. 7). In working to better meet the needs of community college students, he asserts that rigid scheduling, instruction primarily by lecture method, ill-defined and poorly evaluated learning objectives, and ineffective student personnel programs are being abandoned in favor of new goals and new approaches representing the concept of student development. Glass and Hodgin (1977)
underscore the point that community colleges are concerned with the total development of the student and articulate the importance of co-curricular activities. The difficulties faced by these commuting students will continue to challenge their successful participation in both curricular and co-curricular activities.

Noting that the nonselective admissions policies of community colleges result in the enrollment of large numbers of high risk students, Federico (1972) investigated the effects of voluntary versus forced participation in a study skills program for community college freshmen. Ss for the study were full-time male students who had recently graduated from high school and had enrolled at the community college in programs designed to transfer to four year colleges. Federico found that volunteer status was not a significant factor related to the effectiveness of the study skills program. The program did have a positive effect on the self-reported study habits and attitudes toward school of the participants. The results revealed no significant differences in the participants' academic performance at the end of the first semester.

A pilot project using behavioral contracting for community college students on academic probation has been cited by Himelstein and Himelstein (1977) as an effective procedure for improving grade point average. The results
indicated that if low-achieving community college students take part in a plan to structure their study time and effort, then grade point averages will improve. They report that the amount of GPA improvement was directly related to the student's commitment to the behavioral counseling method.

DuBocq (1981) has reported on an academic alert system for community college students who have been placed on academic warning. Designed as a proactive program for the academically troubled student, the individual is required to sign up for intervention courses in the areas of study skills, career goals, and time management. The results of the program revealed that the students' academic performance improved sufficiently to avoid being placed on academic warning.

Becherer (1982) investigated the effects of rational emotive therapy as a treatment adjunct to a study skills program for community college students who had been placed on academic probation. He examined the students' grade point average, self-evaluation of study habits and study attitudes, and retention in college. The researcher cites several concerns with regard to conducting a study improvement program with such a target population of probationary students (e.g., influence of academic ability level and degree of participation in the treatment program).
Critique of the Review of Research on Community College Students

Most of the research on community college students is descriptive in nature. The literature supports the contention that community college students represent a diverse student population. This may represent one of the foremost concerns that a researcher faces in the design and methodology of a study skills improvement program for community college students. The availability of a sufficient S pool for such research investigations presents an E with a formidable task of recruiting interested students who are faced with special schedule demands due to their roles as adult learners and as commuters. The nontraditional college students are often underprepared academically. For many high risk students, successful study skills intervention programs may be viewed as a necessity. There is an apparent lack of research investigating the effectiveness of study skills programs utilizing community college students. Several research questions can be formulated to direct future research investigations in the area of study skills involving community college students. What are some of the unique characteristics of this student population that need to be considered in the development of an effective study skills program? What study skills interventions can be directed toward helping specific target groups within this diverse student population? Which treatment strategies
produce effective outcomes in the areas of academic performance and student persistence as vital elements in the retention of community college students?

Summary of Research and Relationship to the Problem

From the major literature reviews and individual research investigations, there seems to be a great variety of studies conducted in the general area of study skills. Characteristics of the research would seem to reflect efforts directed at assessing the effectiveness of various intervention strategies. An analysis of the different research investigations reveal several limitations due to the methodological concerns as pointed out (Mitchell & Piatkowska, 1974; Kirschenbaum & Perri, 1982). Both refinement of research questions and incorporating the methodological recommendations should lead to improved research in this area.

The multicomponent model offered by Kirschenbaum and Perri (1982) seems to be a viable model to study given the present need for continued research in improving the academic competence of adults. Testing the model in the community college setting would seem to provide needed research data on nontraditional college students which is lacking. Greater attention also needs to be directed toward the motivational component. Thus, the Motivational--Study Skills--Self-regulatory Skills Model seems to be one of the most immediate areas for intensive review in study skills research.
Population and Selection of the Sample

The population for this study was 390 community college students who enrolled during Winter Quarter 1984 in General 100, a freshmen orientation course offered at Thomas Nelson Community College (TNCC) located in Hampton, Virginia. TNCC is a comprehensive community college offering both university-parallel college transfer programs and occupational-technical programs, as well as, a variety of continuing education opportunities for citizens of the Peninsula. Operating with an "open door" admissions policy, academic testing is not required for admission. Individuals who seek admission are not required to be a graduate from an accredited high school nor possess a certificate from a high school equivalency program. Students who are admitted with basic skill deficits are recommended to enroll in appropriate developmental courses in English, reading, and/or mathematics. A total enrollment of 6,067 students in credit courses was the actual headcount (both full-time and part-time students) for Winter Quarter 1984 (Student Enrollment Summary Report, 1984). The student population consisted of approximately 52% female, 48% male, and 31% ethnic minorities. The classification of students according to curricula was as follows: 58% occupational-technical, 24% college transfer, and 18% unclassified. The median age
of all TNCC students tends to be slightly over 26 years (Statistical Abstract 1982-1983, 1983).

Selection of the sample for this investigation was accomplished through presenting a letter to each student enrolled in General 100 for the Winter Quarter 1984 offering an opportunity to participate in a student development program emphasizing study skills development and career decision-making assistance as a supplement to the regular orientation course. Students were offered participation in this student development program as an alternative to some of the required assignments as a means to acquire a proportional number of value points toward their final grade in the General 100 course. Kirschenbaum and Perri (1982) advocate either the volunteer status or materially compensated participation of Ss in the design of study skills research investigations. The sample consists of 93 Ss (volunteers) who expressed interest in the student development program and desired to participate in a group. The students could participate in one of four special, laboratory groups of General 100 that extended beyond the one-day orientation format held at the beginning of the quarter. These special, laboratory groups provided the students an opportunity to be in a student development group (n₁ = 21, n₂ = 18, n₃ = 19, n₄ = 15) that met for an hour per week for a six to ten week period of the quarter. Assignment of Ss to the groups was based on the student's
availability with regard to class schedule and expressed interest in either study skills or career development assistance. A waiting-list ("no treatment") control group (n=20) was used consisting of students who expressed interest in the student development program but were not able to participate during the Winter Quarter. An invitation (see Appendix F) was extended to these students to participate in a similar program during the Spring Quarter 1984. Of the five student development groups, three groups were designated as experimental and the other two groups served as an "attention placebo" control and a "no treatment" control. Designation of which groups were experimental or control was accomplished on a predetermined basis prior to the start of General 100 classes.

Procedures

Data Gathering

Students who desired to participate in the student development program were expected to sign a release form giving their consent to participate in the program, to allow the E access to their academic records at the college, and to agree to assessment testing relative to evaluating the effectiveness of the program. A brief questionnaire was given each S to obtain some basic demographic information such as educational background, curriculum choice, and credit load to determine full-time or part-time student status. Permission was obtained from each student
for the E to obtain information on criterion measures of GPA and credit-hour persistence for Winter Quarter 1984 and a one-quarter follow-up, Spring Quarter 1984.

**Treatments**

The three experimental treatments and "attention placebo" utilized in this study were set up as modules of instructional materials suitable for use in small groups (see Appendix G and Appendix H). A trained group leader made a didactic presentation on each topic, encouraged class discussion, and provided typed handouts of reading material and exercises for actual application of techniques. Each student development group met for a 50 minute session per week for six to ten weeks. Effective treatment programs that were structured, but not very lengthy (less than 10 hours) have been reported in the literature on study skills (Greiner & Karoly, 1976; Richards & Perri, 1978). Each group followed a syllabus (see Appendix G and Appendix H) which contained a topical outline of material to be covered. The initial session served as an orientation to the student development program, enabled pretest assessment to occur, and allowed for student-instructor introductions. The following four to eight sessions were actual treatment sessions. The final session served as evaluation of the laboratory group and posttest assessment.

Instructional material used with the three experimental groups was formulated from Cordell and Giebler (1978),
Groveman, Richards, and Caple (1975), Robinson (1970) and Brown (1970). Treatment 1 was a Study Skills Advice Module consisting of instruction on study reading (e.g., Robinson's SQ3R Method of Survey-Question-Read-Recite-Review), note-taking, and test-taking. Treatment 2 was a module incorporating Study Skills Advice plus Self-regulatory Skills Training (e.g., techniques on self-monitoring and self-reward). Ss were expected to self-monitor their actual study time over several weeks by observing and recording time spent in studying and amount of material read. Ss were expected to incorporate self-reward into their weekly study schedule. Treatment 3 was an integrated module of Study Skills Advice plus Self-regulatory Skills Training plus Motivational Instruction (e.g., understanding intrinsic/extrinsic motivation, setting goals, and developing a positive self-image). Material utilized in the "attention placebo" group on career decision-making was drawn from The Career Life Assessment Skills Series A Program to Meet Adult Development Needs (Curtin & Hecklinger, 1981). This career development material was developed and has been utilized in the community college setting. Topical information focused on self-information, occupational information, and the career decision-making process. 

Ethical Safeguards and Considerations

Subjects for the study were informed of the general nature of the student development program as an expanded
approach to the freshmen orientation course. All participants were required to sign a consent form to declare their willingness to voluntarily participate in the experiment. The E insured confidentiality of individual S data and has offered to interpret results to interested Ss at the conclusion of the experiment. Students who were not given an opportunity to be exposed to a particular study skills module or career development module were placed on a "waiting list" for the next quarter at which time those students were invited to participate in special seminars focusing on the desired topics in study skills.

Prior approval to conduct this investigation was obtained from the Human Subjects Research Committee at The College of William and Mary, Williamsburg, Virginia. Additional approval was obtained from the Research Information Committee at Thomas Nelson Community College, Hampton, Virginia.

Instrumentation

All Ss were pretested-posttested on two measurement instruments: the Survey of Study Habits and Attitudes (SSHA) by Brown and Holtzman (1966) and the Adult Nowicki–Strickland Internal–External Control Scale (ANS–IE) by Nowicki and Duke (1974). In addition, descriptive information about student characteristics of the Ss (i.e., age, sex, race, educational background, curricular choice, and credit load status) were gathered through the
use of a brief questionnaire developed by the E and administered at the beginning of the study.

Survey of Study Habits and Attitudes

The Survey of Study Habits and Attitudes (Brown & Holtzman, 1966) is a 100 item self-report questionnaire designed to measure study methods, motivation for studying, and certain attitudes toward scholastic activities which are important in the classroom. The SSHA is a paper and pencil inventory which asks an individual to mark responses according to a Likert-type scale. Scores are yielded for four basic subscales: Delay Avoidance, Work Methods, Teacher Approval, and Education Acceptance. From these basic subscales, scores are summed to obtain scores on Study Habits, Study Attitudes, and an overall score of Study Orientation. Form C of the SSHA may be administered to college students. The initial normative data for college freshmen was based on 3,054 cases from nine different four-year colleges across the United States. Additional norms for junior and community college students are available. High scores on the SSHA are characteristic of students who achieve good grades, while low scores tend to be characteristic of those who earn low grades. Brown and Holtzman (1966) report that the SSHA has been validated in a number of colleges throughout the United States and that the average validity coefficients were .42 and .45 for males and females, respectively. Internal consistency
coefficients for each of the four subscales ranged from .87 to .89. The test-retest reliability coefficients with a four-week interval ranged from .88 to .93 and for a fourteen-week interval ranged from .83 to .88 for the four basic subscales.

**Adult Nowicki-Strickland Internal-External Control Scale**

The Adult Nowicki-Strickland Internal-External Control Scale (ANS-IE) is a forty item self-report questionnaire which was developed by Nowicki and Duke (1974). The instrument requires the subject to respond according to a forced-choice format—answer yes or no to each test item. According to Nowicki (1980) the ANS-IE was developed to overcome the shortcomings of the Rotter Internal-External Locus of Control Scale and to provide a measure of Rotter's construct of locus of control. The Rotter Internal-External Locus of Control Scale has received much criticism due to a consistent and significant relationship being found between I-E scores and social desirability responding. In addition, the Rotter instrument's forced-choice format and difficult reading level may make it inappropriate for noncollege populations. The ANS-IE requires only a fifth grade reading level. The adult scale items of the ANS-IE were derived through modifying the Children's Nowicki-Strickland Internal-External Control Scale (CNS-IE), mostly by changing the word "children" to "people" and by
changing the tense of some items to make them more appropriate for adult subjects (Nowicki, 1980).

With regard to the instrument's internal consistency, Nowicki and Duke (1974) reported split-half reliabilities in the .60s for college (N=156) and community samples (N=33). The test-retest reliability reported by Nowicki and Duke (1974) for college subjects over a six week period was .83 (N=48). This is comparable to the test-retest reliability found by Chandler (1976) over a seven week period of r=.65 (N=70). Mink (1976) reported a test-retest reliability over one year of r=.56 (N=854) for community college students.

With regard to discriminative validity of the ANS-IE, Nowicki and Duke (1974) investigated the relation of ANS-IE scores to social desirability. This was considered important due to the growing criticism of the Rotter I-E scale for its scores being significantly related to social desirability. The researchers found that ANS-IE scores were not related to scores on the Marlowe-Crowne Social Desirability Scale given two samples of college students (N=48 and N=68); the respective correlation coefficients are r=.10 with df=47 and r=.06 with df=67. Also the relation of ANS-IE scores to intelligence was investigated by Nowicki and Duke (1974). They found that the relation between ANS-IE and Scholastic Aptitude Test scores was not significant (N=48, r=.11).
With regard to construct validity, Nowicki and Duke (1974) administered both the ANS-IE and the Rotter Internal-External Locus of Control Scale to two college and one community adult samples. In all three samples, the correlations between the two measures were significant ($r = .68$, $df = 47$, $p < .01$, $r = .48$, $df = 37$, $p < .01$). Their results were viewed by the researchers to be consistent with the contention that these two measures are assessing the same construct, but not in an identical manner; thus establishing construct validity.

To determine a subject's score along the internal-external dimension of the ANS-IE, the number of external responses are totaled yielding a single score. The higher the subject's score, the more external the locus of control. Conversely, the lower score is interpreted as a more internal locus of control.

**Design**

Since random selection of Ss was not possible, this study was termed quasi-experimental and was designated as a Nonequivalent Control Group Design. The design of the study was as follows:

```
  01       02
  03   P   04
  05   A   06
  07   A   B   08
  09   A   B   C   010
```
In this multi-group design, two groups served as control groups ("no treatment" control and "attention placebo" control) and three groups received different treatments (independent variables). One treatment group was exposed only to a Study Skills Advice Module (Treatment A). A second group was exposed to Study Skills Advice and Self-regulatory Skills Training Modules (Treatment A B). Structured multicomponent programs incorporating study skills and self-control training have been reported as producing substantial gains in academic performance (Greiner & Karoly, 1976; Richards & Perri, 1978). A third group was exposed to modules of Study Skills Advice, Self-regulatory Skills Training, and Motivational Instruction (Treatment A B C) as advocated by Kirschenbaum and Perri (1982). The "attention placebo" control group was exposed to a Career Decision-making Module (P). The three experimental groups and the "attention placebo" control group met for a 50 minute session per week for six to ten weeks. The "no treatment" control was only Pretested-Posttested. Two individuals were employed as group facilitators. Each facilitator led two separate student development groups. The facilitators were community college faculty who are familiar with the freshmen orientation program, study skills development, and career development. The E conducted individual training sessions with the facilitators as a pre-orientation to insure familiarity
with the student development program prior to the commencement of the study. The E made a tape recording of one session on the same study skills topic to insure comparability of the delivery of treatments among the various groups.

In this study, the dependent variables were:
(a) Pretest-posttest scores on the SSHA for each S and group of Ss, (b) Pretest-posttest scores on the ANS-IE for each S and group of Ss, (c) grade point average (GPA) and credit-hour persistence rate at the end of the Winter Quarter 1984 for each S and group of Ss. A follow-up assessment of treatment outcomes was conducted at the end of the Spring Quarter 1984 by examining GPA and credit-hour persistence rate. Short-term follow-ups have found that multiple-component treatment program in study skills led to beneficial outcomes as compared to other interventions and controls (Richards, McReynolds, Holt & Sexton, 1976; Richards, Perri & Gortney, 1976).

Specific Hypotheses

For the purpose of this study, these specific hypotheses were investigated:

1. $H_0$: There was no difference in academic performance among students receiving different study skills components and students in control groups.
2. \( H_0: \) There was no difference in study habits among students receiving different study skills components and students in control groups.

3. \( H_0: \) There was no difference in study attitudes among students receiving different study skills components and students in control groups.

4. \( H_0: \) There was no difference in locus of control among students receiving different study skills components and students in control groups.

5. \( H_0: \) There was no difference in academic performance after one academic quarter among students who received different study skills components and students who were in control groups.

**Statistical Analysis**

An analysis of variance was conducted to determine whether or not the experimental and control groups differed on pretest scores on the SSHA and the ANS-IE. Also, the matched pairs \( t \) test was run to evaluate pretest-posttest differences on the self-report inventory of study habits and study attitudes on the locus of control scale. A post treatment analysis was conducted by employing a covariance model across the treatment and control groups using pretest scores on the SSHA and the ANS-IE as the covariates. Also, post hoc multiple comparisons using Duncan's multiple range test and Scheffe's test were performed. An analysis of variance was used to compare groups' GPA and credit-hour persistence rate
at the end of the Winter Quarter 1984. The same procedure was employed for a one-quarter follow-up, Spring Quarter 1984, to assess the maintenance and generalizability of treatment effects.

**Summary of Methodology**

A sample of 93 students who enrolled in General 100 during Winter Quarter 1984 at TNCC served as Ss for this study. Students who desired to voluntarily participate in a student development program emphasizing study skills development and career decision-making assistance as a supplement to the regular orientation course were placed into one of four special, laboratory groups of General 100 based on class schedule availability. Students who desired to participate but were unable to do so comprised a waiting list control group (n=20). The four special, laboratory groups serving as experimental groups received different components of study skills during a 50 minute session per week for six to ten weeks. One group (n_1=21) received a treatment of Study Skills Advice. A second group (n_2=18) was exposed to Study Skills Advice plus Self-regulatory Skills Training. A third group (n_3=19) received Study Skills Advice plus Self-regulatory Skills Training plus Motivational Instruction. The fourth group (n_4=15) served as an "attention placebo" group exposed to information on career decision-making.
All Ss were required to sign a consent form to participate in the student development program and allow the E access to students' academic records at the college. Each S was asked to fill out a brief, demographic questionnaire on educational background, curriculum choice, and student status. All Ss were pretested-posttested on the SSHA and the ANS-IE. Since randomization of Ss was not possible, a Nonequivalent Control Group Design was used for this study. The E evaluated the treatment effects by examining the dependent variables of pre-post assessment scores on the SSHA and the ANS-IE, GPA, and credit-hour persistence rate at the end of the Winter Quarter 1984. A one-quarter, follow-up assessment of treatment outcomes was conducted at the end of Spring Quarter 1984.

The specific hypotheses that were evaluated were to determine whether or not increasing the number of study skills components results in improvement of students' academic performance, study habits, study attitudes, and an increase in the internal control relative to comparison or control groups. Analysis of variance and covariance, post hoc multiple comparisons, and the matched pairs t test were statistical procedures used to evaluate the treatment effects.
Chapter IV
Results

The results of the study are organized into four major sections. First, data collected from the Brief Demographic Questionnaire is included to provide a description of the Ss who comprised the total sample. Secondly, a preliminary data analysis section contains both descriptive statistical information and an explanation as to the actual data analysis used. Thirdly, the evaluation of hypotheses is presented in the order of the null hypotheses as listed in Chapter III. The fourth section provides a comparison of pre-test and post-test differences on the criterion measures of the SSHA and ANS-IE as a basis for examining possible treatment effects within groups. Finally, a summary of the results obtained from the End-of-Group Evaluation Form is provided. Tables 1 through 10 have been included so as to summarize some of the data that was collected and to report relevant descriptive and inferential statistics.

Description of the Total Sample Based on Data from the Brief Demographic Questionnaire

Information that was collected from the Brief Demographic Questionnaire provided the researcher with a description of the total sample \( (N=93) \) on selected demographic variables of race, sex, age, curricular status, and credit load. A summary of this information is presented
in Table 1 which shows the composition of treatment and control groups. For the total sample, this information has been summarized by the actual number and percentage of Ss in each category. According to race, the total sample was comprised of: 35 blacks (37.6%), 55 whites (59.2%), and 3 "other" race (3.2%). By sex, there were 58 females (62.4%) and 35 males (37.6%). According to curricular status, there were 28 college-transfer students (30.1%), 64 occupational-technical students (68.8%), and 1 unclassified student (1.1%). By credit load, there were 56 full-time students (60.2%) and 37 part-time students (39.8%). For the total sample, the average age of the Ss was 28.72.

Preliminary Data Analysis

Descriptive statistics for the dependent variables of SSHA and ANS-IE scores are presented in Table 2. Similar information pertaining to GPA and credit-hour persistence rate for the Winter Quarter 1984 and the Spring Quarter 1984 is presented in Table 3. Since a Nonequivalent Control Group Design was utilized, the existence of possible differences between groups on the SSHA and ANS-IE pre-test scores was tested by an analysis of variance. The results of this analysis as presented in Table 4 revealed that no significant differences existed between groups on these variables. However, as shown in Table 2, there appeared to be substantial within group variability as evidenced by the standard deviation scores. Based
Table 1

Description of Treatment and Control Groups
on Selected Demographic Variables

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Table 2

Mean Scores and Standard Deviations for Treatment and Control Groups on Pre-test and Post-test Measures of the Survey of Study Habits and Attitudes Scales and the Adult Nowicki-Strickland Internal-External Control Scale

<table>
<thead>
<tr>
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<th>M</th>
<th>SD</th>
<th>n</th>
<th>M</th>
<th>SD</th>
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<th>M</th>
<th>SD</th>
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<td>4.98</td>
<td>15</td>
<td>29.54</td>
<td>9.89</td>
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<td>7.65</td>
<td>16</td>
<td>32.81</td>
<td>9.09</td>
<td>15</td>
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<td>29.62</td>
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<td>19</td>
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<td>15</td>
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<td>18</td>
<td>111.25</td>
<td>34.00</td>
<td>19</td>
<td>116.67</td>
<td>33.63</td>
<td>15</td>
<td>116.77</td>
<td>33.24</td>
</tr>
<tr>
<td>SO2</td>
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<td>131.81</td>
<td>33.63</td>
<td>16</td>
<td>126.44</td>
<td>38.54</td>
<td>15</td>
<td>133.67</td>
<td>29.67</td>
<td>13</td>
<td>118.54</td>
<td>30.02</td>
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<tr>
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<td>11.05</td>
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<td>18</td>
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<td>5.76</td>
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<td>10.47</td>
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<td>15</td>
<td>11.54</td>
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<td>NS2</td>
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<td>3.77</td>
<td>16</td>
<td>9.88</td>
<td>4.63</td>
<td>15</td>
<td>8.07</td>
<td>3.52</td>
<td>13</td>
<td>10.08</td>
<td>5.16</td>
</tr>
</tbody>
</table>

Note. The following abbreviations are delineated as: DA1 = Delay Avoidance Pre-test score; DA2 = Delay Avoidance Post-test score; WM1 = Work Methods Pre-test score; WM2 = Work Methods Post-test score; SH1 = Study Habits Pre-test score; SH2 = Study Habits Post-test score;
TA1 = Teacher Approval Pre-test score; TA2 = Teacher Approval Post-test score; EA1 = Education Acceptance Pre-test score; EA2 = Education Acceptance Post-test score; SA1 = Study Attitudes Pre-test score; SA2 = Study Attitudes Post-test score; SO1 = Study Orientation Pre-test score; SO2 = Study Orientation Post-test score; NS1 = Nowicki-Strickland Scale Pre-test score; and NS2 = Nowicki-Strickland Scale Post-test score. aChange in n due to attrition.
Table 3
Means and Standard Deviations for Treatment and Control Groups on Grade Point Average (GPA) and Credit-hour Persistence Rate (CPR) for Winter Quarter 1984 and Spring Quarter 1984

<table>
<thead>
<tr>
<th>Groups</th>
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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
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<td>M</td>
<td>SD</td>
<td>n&lt;sup&gt;b&lt;/sup&gt;</td>
<td>M</td>
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<td>WGPA</td>
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<td>1.00</td>
<td>17</td>
<td>2.47</td>
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<td>2.55</td>
<td>1.40</td>
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<td>2.69</td>
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<td>WCPR</td>
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<td>.93</td>
<td>.20</td>
<td>17</td>
<td>1.00</td>
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<tr>
<td>SCPR</td>
<td>15</td>
<td>.85</td>
<td>.20</td>
<td>9</td>
<td>.90</td>
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</table>

Note. The following abbreviations are delineated as: WGPA = Winter Quarter 1984 Grade Point Average; SPGA = Spring Quarter 1984 Grade Point Average; WCPR = Winter Quarter 1984 Credit-hour Persistence Rate; and SCPR = Spring Quarter 1984 Credit-hour Persistence Rate.

<sup>a</sup>Change in n represents six less Ss due to their enrollment in Developmental Studies coursework with no associated college credits.  
<sup>b</sup>Change in n represents eight less Ss due to one enrolled (table Note continues)
in Developmental coursework only and seven Ss not enrolled for Spring Quarter 1984.  

Change in n represents eight less Ss due to three enrolled in Developmental coursework only, one withdrew during the Spring Quarter 1984, and four Ss not enrolled for Spring Quarter 1984.  

Change in n due to six less Ss due to four Ss enrolled in Developmental coursework only and two Ss not enrolled for Spring Quarter 1984.  

Change in n due to two Ss enrolled in Developmental coursework only, two Ss withdrew during Spring Quarter 1984, and five Ss not enrolled for Spring Quarter 1984.
Table 4
Summary of Analysis of Variance of Pre-test Scores on the
Survey of Study Habits and Attitudes (SSHA) and
Adult Nowicki-Strickland Internal-External Control
Scale (ANS-IE) for Treatment and Control Groups

<table>
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<tr>
<th>Variable</th>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F</th>
<th>P</th>
</tr>
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<tr>
<td>Delay</td>
<td>Between</td>
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<td>0.73</td>
<td>.58</td>
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<tr>
<td>Avoidance</td>
<td>Groups</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Within</td>
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<td>88</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Total</td>
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<td>92</td>
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<td></td>
</tr>
<tr>
<td>Work</td>
<td>Between</td>
<td>835.67</td>
<td>4</td>
<td>2.33</td>
<td>.06</td>
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<tr>
<td>Methods</td>
<td>Groups</td>
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<td></td>
<td>Within</td>
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<td></td>
<td>Total</td>
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<td>92</td>
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<tr>
<td>Study</td>
<td>Between</td>
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<td>4</td>
<td>1.35</td>
<td>.26</td>
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<td>Groups</td>
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<td></td>
<td>Within</td>
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<td>Total</td>
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<td>92</td>
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*(table continues)*
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<th>F</th>
<th>p</th>
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<tr>
<td></td>
<td>Within Groups</td>
<td>8039.56</td>
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<td></td>
<td>Total</td>
<td>8289.57</td>
<td>92</td>
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<tr>
<td><strong>Education</strong></td>
<td>Between Groups</td>
<td>337.05</td>
<td>4</td>
<td>1.31</td>
<td>.27</td>
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<tr>
<td></td>
<td>Within Groups</td>
<td>5645.87</td>
<td>88</td>
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<td></td>
<td>Total</td>
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<td>92</td>
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<tr>
<td><strong>Study</strong></td>
<td>Between Groups</td>
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<td>4</td>
<td>0.97</td>
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<td>Within Groups</td>
<td>24116.53</td>
<td>88</td>
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<td>Source of Variance</td>
<td>Sum of Squares</td>
<td>df</td>
<td>( F^b )</td>
<td>p</td>
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<td>--------------------</td>
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<td>Study Orientation</td>
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<td>4</td>
<td>1.30</td>
<td>.28</td>
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<td>Within Groups</td>
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<td>88</td>
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<td>Total</td>
<td>97060.20</td>
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<td>Locus of Control</td>
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<td>4</td>
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<td>.78</td>
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<td>Within Groups</td>
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<td>Total</td>
<td>1868.45</td>
<td>92</td>
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</table>

Note: The ANOVA results that are shown represent the data obtained for the following five groups: Group 1 (six-week Study Skills), Group 2 (eight-week Study Skills-Motivation), Group 3 (ten-week Study Skills-Motivation-Self-regulatory Skills), Group 4 (ten-week attention placebo in Career Development, and Group 5 (no treatment control). The variable of Delay Avoidance through Study Orientation represent scales of the SSHA. The Locus of Control variable pertains to the measurement obtained on the ANS-IE. Using the \( p < .05 \) level, none of the \( F \) values were significant.
upon this preliminary inspection of the data, the $E$ decided to evaluate Hypotheses 2, 3, and 4 by using an analysis of covariance with the pre-test score as the covariate. An analysis of variance was used to evaluate Hypotheses 1 and 5.

**Evaluation of Hypotheses**

**Hypothesis 1**

1. $H_0$: There was no difference in academic performance among students receiving different study skills components and students in control groups.

The null hypothesis stating no difference between treatment and control groups in academic performance as measured by Winter Quarter 1984 GPA and Winter Quarter 1984 Credit-hour Persistence Rate was accepted. A summary of the results obtained by an analysis of variance is presented in Table 5. On GPA, an $F(4, 86) = 0.71, p < .59$ and on credit-hour persistence rate, an $F(4, 86) = 0.49, p < .74$ were obtained. Since the .05 level of significance was used and not reached, the null hypothesis was accepted. Both treatment and control groups appeared to perform well academically. On GPA, the group means were as follows: Group 1 (2.97), Group 2 (2.47), Group 3 (2.90), Group 4 (2.44), and Group 5 (2.59). On credit-hour persistence rate, the group means were: Group 1 (0.89), Group 2 (0.85), Group 3 (0.79), Group 4 (0.75), and Group 5 (0.81).
Table 5

Summary of Analysis of Variance of Academic Performance as Measured by Winter Quarter 1984 GPA (WGPA) and Winter Quarter 1984 Credit-hour Persistence Rate (WCPR) for Treatment and Control Groups

<table>
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<tr>
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<th>F</th>
<th>p</th>
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<td>WGPA</td>
<td>Between Groups</td>
<td>4.39</td>
<td>4</td>
<td>0.71</td>
<td>.59</td>
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<tr>
<td></td>
<td>Within Groups</td>
<td>133.69</td>
<td>86</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
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<td>90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WCPR</td>
<td>Between Groups</td>
<td>0.20</td>
<td>4</td>
<td>0.49</td>
<td>.74</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>8.91</td>
<td>86</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9.11</td>
<td>90</td>
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</tbody>
</table>

Note. Using the p < .05 level, neither F values were significant.
Hypothesis 2

2. \( H_0 \): There was no difference in study habits among students receiving different study skills components and students in control groups.

The null hypothesis stating no difference between treatment and control groups in study habits was rejected. A summary of an analysis of covariance using pre-test score as the covariate is presented in Table 6. On the measure of study habits, an \( F(4, 76) = 4.22, p < .004 \) was found to be statistically significant. Therefore, the null hypothesis was rejected at the .01 level of significance. On the raw scores of study habits, post-test group means were: Group 1 (58.62), Group 2 (59.00), Group 3 (60.53), Group 4 (52.54), and Group 5 (54.47).

Since study habits represents the combination of the SSHA subscales of delay avoidance and work methods, the analysis of these post-test measures also revealed significant main effects on DA, an \( F(4, 76) = 3.17, p < .018 \), and on WM, an \( F(4, 76) = 3.52, p < .011 \), respectively. Thus, steps were taken to evaluate the following alternate hypothesis:

\[ H_2 \]: Increasing the number of study skills components students receive would improve their study habits relative to comparison or control groups.

A post hoc analysis was conducted to examine the change scores on study habits as measured by the difference
Table 6

Summary of Analysis of Covariance of Post-test Scores on the Survey of Study Habits and Attitudes (SSHA) Scales of Delay Avoidance, Work Methods, and Study Habits for Treatment and Control Groups Using Pre-test Score as Covariate

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay Covariate</td>
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<td>124.698</td>
<td>.000</td>
</tr>
<tr>
<td>Avoidance Main Effects</td>
<td>528.54</td>
<td>4</td>
<td>3.17*</td>
<td>.018</td>
</tr>
<tr>
<td>Explained</td>
<td>5724.62</td>
<td>5</td>
<td>27.48</td>
<td>.000</td>
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<tr>
<td>Residual</td>
<td>3166.85</td>
<td>76</td>
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</tr>
<tr>
<td>Total</td>
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<td>81</td>
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<td></td>
</tr>
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<td>Work Covariate</td>
<td>1972.90</td>
<td>1</td>
<td>40.98</td>
<td>.000</td>
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<tr>
<td>Methods Main Effects</td>
<td>678.46</td>
<td>4</td>
<td>3.52*</td>
<td>.011</td>
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<tr>
<td>Explained</td>
<td>2651.35</td>
<td>5</td>
<td>11.01</td>
<td>.000</td>
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<tr>
<td>Residual</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
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<td></td>
</tr>
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<td>.000</td>
</tr>
<tr>
<td>Habits Main Effects</td>
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<td>4.22**</td>
<td>.004</td>
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<tr>
<td>Explained</td>
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<td>5</td>
<td>20.44</td>
<td>.000</td>
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<tr>
<td>Residual</td>
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<td>76</td>
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</tr>
<tr>
<td>Total</td>
<td>25609.95</td>
<td>81</td>
<td></td>
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</tr>
</tbody>
</table>

*p < .05. **p < .01.
between pre-test and post-test scores. The mean difference for the groups were: Group 1 (9.19), Group 2 (11.00), Group 3 (11.73), Group 4 (-0.38), and Group 5 (-4.82). By using a one-way analysis of variance, a significant main effect was recorded; an $F(4, 77) = 5.45, p < .0006$. This showed a very significant difference existed among the various treatment and control groups but did not provide sufficient information as to how the groups differed and to what magnitude. Therefore, a post hoc multiple comparisons using Duncan's multiple range test was performed. This revealed that although the three treatment groups differed significantly from the two control groups at the .05 level, the three treatment groups were not significantly different from one another. In addition, the more conservative Scheffe's test was performed. The results obtained from that test indicated that only the three treatment groups differed from the "no treatment" control group at the .05 level of significance. Since the alternate hypothesis stated that increasing the number of study skills components students receive would improve their study habits relative to comparison or control groups, the alternate hypothesis was also rejected. There did appear to be a treatment difference but not corresponding to the expected order of increasing the number of study skills components.
Hypothesis 3

3. $H_0$: There was no difference in study attitudes among students receiving different study skills components and students in control groups.

The null hypothesis stating no difference between treatment and control groups in study attitudes was accepted. A summary of an analysis of covariance using pre-test scores as the covariate is presented in Table 7. On the measure of study attitudes, an $F(4, 76) = 1.52$, $p < .204$ was found not to be statistically significant. Since the .05 level of significance was used and not reached, the null hypothesis was accepted. On the raw scores of study attitudes, the post-test group means were: Group 1 (72.90), Group 2 (67.44), Group 3 (73.13), Group 4 (66.00), and Group 5 (66.53). Since study attitudes represents the combination of the SSHA subscales of teacher approval and education acceptance, it is important to note that no significant main effects were revealed on either measure; on TA, an $F(4, 76) = 1.36$, $p < .255$ and on EA, an $F(4, 76) = 1.36$, $p < .254$.

Hypothesis 4

4. $H_0$: There was no difference in locus of control among students receiving different study skills components and students in control groups.

The null hypothesis stating no difference between treatment and control groups in locus of control was
<table>
<thead>
<tr>
<th>Variable</th>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F</th>
<th>p</th>
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<tbody>
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<td></td>
<td>Explained</td>
<td>5111.58</td>
<td>5</td>
<td>22.93</td>
<td>.000</td>
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<tr>
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<td>Residual</td>
<td>3388.44</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8500.02</td>
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<td>Covariate</td>
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<td>Total</td>
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**Note.** Using the $p < .05$ level, none of the $F$ values were significant.
accepted. A summary of an analysis of covariance using pre-test scores as the covariate is presented in Table 8. On the measure of locus of control, an $F(4, 76) = 1.41$, $p < .238$ was found not to be statistically significant. Since the .05 level of significance was used and not reached, the null hypothesis was accepted. On the locus of control scores as measured by the ANS-IE, the post-test group means were: Group 1 (9.76), Group 2 (9.88), Group 3 (8.07), Group 4 (10.08), and Group 5 (10.00).

**Hypothesis 5**

$H_0$: There was no difference in academic performance after one academic quarter among students who received different study skills components and students who were in control groups.

The null hypothesis of no difference between treatment and control groups in academic performance as measured by Spring Quarter 1984 GPA and Spring Quarter 1984 Credit-hour Persistence Rate was accepted. A summary of the results obtained by an analysis of variance is presented in Table 9. On GPA, an $F(4, 49) = 0.74$, $p < .57$ and on $F(4, 49) = 1.19$, $p < .33$ were obtained. Since the .05 level of significance was used and not reached, the null hypothesis was accepted. On GPA, the group means were: Group 1 (2.55), Group 2 (2.69), Group 3 (2.43), Group 4 (2.05), and Group 5 (2.98). On credit-hour persistence rate, the group means were: Group 1 (.85), Group 2 (.90), Group 3 (.83), Group 4 (.68), and Group 5 (.93).
Table 8
Summary of Analysis of Covariance of Post-test Scores on the Adult Nowicki-Strickland Internal-External Control Scale (ANS-IE) for Treatment and Control Groups Using Pre-test Score as Covariate

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of Covariate</td>
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<td>.000</td>
</tr>
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<td>Control Main Effects</td>
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<td>1.41</td>
<td>.238</td>
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<td>Explained</td>
<td>777.72</td>
<td>5</td>
<td>17.96</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1436.06</td>
<td>81</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Using the p < .05 level, the F value was not significant.
Table 9

Summary of Analysis of Variance of Academic Performance as Measured by Spring Quarter 1984 GPA (SGPA) and Spring Quarter 1984 Credit-hour Persistence Rate (SCPR) for Treatment and Control Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
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<td>SGPA</td>
<td>Between</td>
<td>4.64</td>
<td>4</td>
<td>0.74</td>
<td>.57</td>
</tr>
<tr>
<td></td>
<td>Groups</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>76.46</td>
<td>49</td>
<td></td>
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</tr>
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<td>Groups</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>81.11</td>
<td>53</td>
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<td></td>
</tr>
<tr>
<td>SCPR</td>
<td>Between</td>
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<td>4</td>
<td>1.19</td>
<td>.33</td>
</tr>
<tr>
<td></td>
<td>Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>3.52</td>
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<td></td>
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<tr>
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<td>Groups</td>
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<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>3.87</td>
<td>53</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Using the p < .05 level, neither F value was significant.
Comparison of Pre-test and Post-test Differences

An evaluation of pre-test and post-test differences on the measures obtained from the SSHA and the ANS-IE was conducted by group using the matched pairs $t$ test. The results are presented in Table 10.

**Group 1**

Group 1 which was the six-week treatment group improved significantly on the following criterion measures: delay avoidance, work methods, study habits, teacher approval, study attitudes, and study orientation. Although the changes on education acceptance and locus of control were in the expected directions, the $t$ values did not reach the .05 level of significance. For education acceptance, a $t(20) = 1.93$, $p < .068$ was obtained. For the locus of control, a $t(20) = -1.97$, $p < .062$ indicated a change although not a significant one toward a more internal orientation.

**Group 2**

Group 2 which was the eight-week treatment group improved significantly on the following criterion measures: work methods, study habits, and study orientation. Although there was some improvement reported on the other measures of delay avoidance, teacher approval, education acceptance, and study attitudes as well as a change toward a more internal locus of control, none of these changes were significant.
Table 10
Comparison of Pre-test and Post-test Differences for Treatment and Control Groups on the Survey of Study Habits and Attitudes (SSHA) and the Adult Nowicki-Strickland Internal-External Control Scale (ANS-IE)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Pre-test Mean</th>
<th>Post-test Mean</th>
<th>Difference</th>
<th>t</th>
<th>df</th>
<th>Probability</th>
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<tbody>
<tr>
<td>Delay</td>
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<td>.012</td>
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<td>Avoidance</td>
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<td>25.13</td>
<td>28.00</td>
<td>2.87</td>
<td>1.28</td>
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<td>.219</td>
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<tr>
<td></td>
<td>3</td>
<td>25.00</td>
<td>30.20</td>
<td>5.20</td>
<td>3.06**</td>
<td>14</td>
<td>.008</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>24.38</td>
<td>24.85</td>
<td>0.47</td>
<td>0.32</td>
<td>12</td>
<td>.754</td>
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<tr>
<td></td>
<td>5</td>
<td>28.76</td>
<td>26.18</td>
<td>-2.58</td>
<td>-2.15*</td>
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<td>.047</td>
</tr>
<tr>
<td>Work</td>
<td>1</td>
<td>25.38</td>
<td>30.57</td>
<td>5.19</td>
<td>2.99**</td>
<td>20</td>
<td>.007</td>
</tr>
<tr>
<td>Methods</td>
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<td>22.88</td>
<td>30.88</td>
<td>8.00</td>
<td>4.09***</td>
<td>15</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>23.80</td>
<td>30.33</td>
<td>6.53</td>
<td>2.99**</td>
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<td>.010</td>
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<tr>
<td></td>
<td>4</td>
<td>28.54</td>
<td>27.69</td>
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<td>12</td>
<td>.516</td>
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<td>3.27**</td>
<td>20</td>
<td>.004</td>
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<td>59.00</td>
<td>11.00</td>
<td>2.85*</td>
<td>15</td>
<td>.012</td>
</tr>
<tr>
<td></td>
<td>3</td>
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<td>60.53</td>
<td>11.73</td>
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<tr>
<td></td>
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<td>-1.65</td>
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<td>.118</td>
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</tbody>
</table>

Note. *p < .05; **p < .01; ***p < .001

(table continues)
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<th>Variable</th>
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<th>Pre-test Mean</th>
<th>Post-test Mean</th>
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<td>-0.88</td>
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<td>.391</td>
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Note. *p < .05
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<th>Post-test Mean</th>
<th>Mean Difference</th>
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<td>9.76</td>
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<td>-1.97</td>
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<td>Control</td>
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<td>10.00</td>
<td>0.35</td>
<td>0.50</td>
<td>16</td>
<td>.627</td>
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</table>

Note. *p < .05; **p < .01
Group 3

Group 3 which was the ten-week treatment group improved significantly on the following criterion measures: delay avoidance, work methods, study habits, teacher approval, study attitudes, study orientation, and locus of control. Although it was not significant at the .05 level, the change in education acceptance was in the desired direction of showing improvement; \( t(14) = 1.80, p < .093 \).

Group 4

Group 4 was the ten-week "attention placebo" control group. This group did not show any significant change on any of the criterion measures of the SSHA or the ANS-IE. An inspection of the mean differences on the various measures revealed little or no change from pre-test to post-test.

Group 5

Group 5 which was the "no treatment" control group showed no significant improvement on the criterion measures. In fact, a significant decline in delay avoidance occurred; \( t(16) = -2.15, p < .047 \). Although it was not significant, a slight change toward a more external locus of control was observed.

End-of-Group Evaluation Results

Results obtained from the End-of-Group Evaluation Form which was administered and collected during the final session of Groups 1, 2, 3 (see Appendix G) and Group 4 (see Appendix H) are summarized briefly in this section.
The purpose of the evaluation form was to enable each participant to have an opportunity to evaluate on an anonymous basis the value of the student development group. The students' perceptions of the groups provided this researcher with a subjective appraisal of the study skills groups and the career development group. This information should prove helpful in the design and implementation of similar student development groups in the future.

Groups 1, 2 and 3

The students in these three treatment groups expressed overall a very favorable opinion with regard to the value of the study skills groups. In response to whether or not this type of student development group should continue to be offered as a part of General 100, 49 of 52 respondents (94.2%) expressed support for its continuation. All of the respondents (100%) viewed the instructional approach of lecture-discussion-homework to be effective. In response to the question to what degree were the following content areas of practical value for them as students, the respondents again expressed a favorable evaluation of each area: for SQ3R Study Reading, 40 of 52 respondents (76.9%) rated this as very valuable or valuable; for Note-taking, 34 of 52 respondents (65.4%) rated this as very valuable or valuable; and for Test-taking, 38 of 52 respondents (73.1%) rated this as very valuable or valuable. Groups 2 and 3 expressed a similar favorable
evaluation of the following content areas: for Self-monitoring, 20 of 31 respondents (64.5%) rated this as very valuable or valuable; and for Self-reinforcement, 20 of 31 respondents (64.5%) rated this as very valuable or valuable. For Group 3, 10 of 15 respondents (66.7%) rated the Motivation content area as very valuable or valuable. For all three groups, 43 of 52 respondents (82.7%) thought that their participation in such a group helped improve their academic performance for the quarter. When asked what types of student development groups should be offered by the Counseling Center in the future, the majority of the respondents recommended the following six topics which are listed in descending order of interest: study skills, test anxiety, career decision-making, achievement motivation, communication skills, and job-hunting skills.

**Group 4**

The students in the career development group also expressed a favorable opinion of its value. Of the 12 respondents, six participants (50%) thought that this type of student development group should continue to be offered as a part of General 100. Nine respondents (75%) found the instructional approach of lecture-discussion-homework to be effective. Seven (58.3%) respondents rated the Self-information content area as very valuable or valuable. Nine (75%) respondents rated both the
Career Information and Career Decision-making content areas as very valuable or valuable. When asked whether or not their participation in the group helped them to acquire more effective information about themselves for use in career planning, nine respondents (75%) either strongly agreed or agreed that it was helpful. The majority of the respondents recommended the following four topics be offered by the Counseling Center through future student development groups: job-hunting skills, career decision-making, achievement motivation, and study skills.
Chapter V
Summary, Conclusions, Discussion, and Recommendations

This chapter is organized into four major sections. First, a summary of the study is presented. Second, conclusions based upon the analysis of the data are provided. Third, a discussion of the implications of the results is presented. Finally, some recommendations for future research are offered.

Summary

As previously stated, the purpose of this study was to investigate the effectiveness of a multicomponent model for developing effective study skills in community college students. This was attempted through a proactive student development program offered to community college students as an expanded orientation course that targeted on the development of effective study skills. Although there has been much research conducted in the area of study skills as evidenced by the major literature reviews done by Entwisle (1960), Bednar and Weinberg (1970), Mitchell and Piatkowska (1974), and Kirschenbaum and Perri (1982), there appears to be some confusion as to identifying common characteristics of successful treatment programs. In addition, there exists a serious lack of research involving community college students. Thus, this study attempted to answer the question "To what extent does a structured multicomponent program of study skills affect the academic performance, study habits,
study attitudes, and locus of control of community college students?"

The population for this study was 390 community college students enrolled in a freshman orientation course, General 100, during the Winter Quarter 1984 at Thomas Nelson Community College in Hampton, Virginia. The sample for this study consisted of 93 Ss who volunteered to participate in a student development program offered as an expanded orientation course. These students had expressed a favorable response to a letter distributed to all General 100 students that invited them to participate in a student development program emphasizing study skills development and career decision-making assistance. The Ss were extended an opportunity to participate in one of four special, laboratory groups of General 100 that were designated as student development groups. The student development groups met for a 50 minute session per week for six to ten weeks. Three groups were designated as experimental groups which received different components of study skills as treatments. Group 1 was a six-week group that received Study Skills Advice. Group 2 was an eight-week group that received Study Skills Advice plus Self-regulatory Skills Training. Group 3 was a ten-week group that received Study Skills Advice plus Self-regulatory Skills Training plus Motivational Instruction. An "attention placebo" control group, Group 4, was exposed to information on career decision-making. A fifth group,
Group 5, was formed as a "no treatment" control group which consisted of students who expressed interest in the student development program but were not able to participate in the Winter Quarter due to schedule conflicts. The dependent measures of the study were academic performance as measured by grade point average and credit-hour persistence rate, a self assessment of study habits and study attitudes, and locus of control. Descriptive information on the Ss was gathered through a brief, demographic questionnaire. Also, an end-of-group evaluation form was provided each participant to enable a subjective appraisal of the value of the study skills groups and career development group.

Since randomization of Ss was not possible due to the constraint of schedule availability, a Nonequivalent Control Group Design was used for this study. Evaluation of treatment effects was attempted by examining the dependent variables of pre-post assessment scores on the Survey of Study Habits and Attitudes and the Adult Nowicki-Strickland Internal-External Control Scale, GPA, and credit-hour persistence rate at the end of Winter Quarter 1984. A one-quarter, follow-up assessment of treatment outcomes was conducted at the end of Spring Quarter 1984. An analysis of variance was conducted to determine whether or not the experimental and control groups differed on pretest scores. A post treatment analysis was conducted by employing a covariance model across treatment and control groups using
pretest scores on the SSHA and the ANS-IE as the covariates. As deemed appropriate, post hoc multiple comparisons using Duncan's multiple range test and Scheffe's test were performed. A matched pairs $t$ test was used to evaluate pretest-posttest differences on the self-report inventory of study habits and study attitudes and on the locus of control scale. An analysis of variance was conducted to compare groups' GPA and credit-hour persistence rate at the end of the Winter Quarter 1984 and the Spring Quarter 1984.

Data collected from the Brief Demographic Questionnaire provided descriptive information on the sample. The students who comprised the sample ($N=93$) seemed to be representative of the general population of students enrolled at Thomas Nelson Community College. The demographic variables of race, sex, age, curricular status, and credit load were examined. Analysis of the pretest scores on the SSHA and the ANS-IE revealed no significant differences among the treatment and control groups at the beginning of the Winter Quarter 1984. However, based upon a preliminary data analysis there appeared to be substantial within group variability. Therefore, an analysis of covariance was employed using the pretest score as the covariate to evaluate the hypotheses pertaining to study habits, study attitudes, and locus of control. Only for study habits was there sufficient statistical evidence to reject the null hypothesis of no difference among students receiving
different study skills components and students in control groups. Through the use of a post hoc analysis, there was found to be a very significant difference in study habits among the various treatment and control groups. Results from a Duncan's multiple range test revealed that the three treatment groups achieved a greater gain on study habits than did either control group. This was significant at the .05 level. Results from a Scheffe's test revealed that the three treatment groups achieved a greater gain on study habits than did the "no treatment" control. Although there did appear to be a significant treatment effect on study habits, there was insufficient evidence to support the alternate hypothesis that increasing the number of study skills components students received would improve their study habits relative to comparison or control groups. On academic performance as measured by GPA and credit-hour persistence rate, an analysis of variance revealed no difference among the various treatment and control groups at the end of Winter Quarter 1984. Also, by using the same procedure to evaluate academic performance at the end of Spring Quarter 1984, there was found to be no difference among the various groups.

A comparison of pre-test and post-test differences on the measures obtained from the SSHA and the ANS-IE was also examined by group using the matched pairs t test.
The six-week treatment group, Group 1, improved significantly on delay avoidance, work methods, study habits, teacher approval, study attitudes, and study orientation. The eight-week treatment group, Group 2, improved significantly on work methods, study habits, and study orientation. The ten-week treatment group, Group 3, improved significantly on delay avoidance, work methods, study habits, teacher approval, study attitudes, study orientation, and locus of control (more internal). The "attention placebo" control group, Group 4, did not show any significant change on any of the criterion measures of the SSHA or the ANS-IE. The "no treatment" control group, Group 5, also showed no significant improvement on the criterion measures. In fact, Group 5 declined significantly on delay avoidance. These results provided evidence that there were some significant treatment effects within each of the three treatment groups which received various study skills components. Conversely, there did not appear to be significant improvement in comparison or control groups.

Data collected from the End-of-Group Evaluation Form revealed that overall the students' perceptions of the groups were quite favorable. A majority of the participants in the three treatment groups in study skills and the control group in career development all rated their groups as valuable or very valuable. Likewise, a majority in all of the groups expressed support for the continuation of
this type of student development program as a part of General 100. For all four groups, the instructional approach of lecture-discussion-homework was viewed as effective. Students expressed an interest in the Counseling Center offering in the future similar student development groups on topics of: study skills, test anxiety, career decision-making, achievement motivation, communication skills, and job-hunting skills.

Conclusions

The major findings of this study are delineated in this section.

1. Descriptive information which was gathered on the sample revealed that on the demographic characteristics of race, sex, age, curricular status, and credit load the Ss were representative of the general population of students enrolled at Thomas Nelson Community College.

2. Although a Nonequivalent Control Group Design was used, the treatment and control groups were equivalent at the onset of the study. An analysis of the pretest scores on the SSHA and ANS-IE revealed no significant differences among the treatment and control groups.

3. There was no significant difference in academic performance at the end of the academic quarter among students who received different study skills components and students who participated in control groups. An analysis of
academic performance as measured by quarterly GPA and credit-hour persistence rate revealed no significant difference among the three treatment groups which received either one component of study skills advice, two components of study skills advice plus self-regulatory skills training, or three components of study skills advice plus self-regulatory skills training plus motivational instruction, and the two control groups of either an "attention placebo" in career development or "no treatment."

4. The hypothesis of no difference in study habits among students receiving different study skills components and students in control groups was rejected. An analysis of covariance using pretest score as the covariate yielded a significant difference among the groups. From a post hoc analysis, the three treatment groups were found to have achieved a significantly greater improvement in study habits than the two control groups. However, the three treatment groups did not differ significantly according to the expected order of increasing the number of study skills components.

5. There was no significant difference in study attitudes among students receiving different study skills components and students in control groups. An analysis of covariance using pretest scores as the covariate revealed no significant difference among the groups.
6. There was no significant difference in the locus of control among students receiving different study skills components and students in control groups. This finding is based on an analysis of covariance using the pretest score as a covariate which revealed no significant difference among the treatment and control groups.

7. After a one-quarter follow-up, there was no significant difference in academic performance among students who received different study skills components and students who were in control groups. An analysis of academic performance as measured by quarterly GPA and credit-hour persistence rate yielded no significant difference among the treatment and control groups.

8. Based on a comparison of the pretest and posttest differences on the measures obtained from the SSHA and the ANS-IE, evidence was found that there were some significant treatment effects within each of the three treatment groups and none within the control groups. The six-week treatment group which received study skills advice improved significantly on delay avoidance, work methods, study habits, teacher approval, study attitudes, and study orientation. The eight-week treatment group which received study skills advice plus self-regulatory skills training improved significantly on work methods, study habits, and study orientation. The ten-week treatment group which received study skills advice plus self-regulatory skills training plus
motivational instruction improved significantly on delay avoidance, work methods, study habits, teacher approval, study attitudes, study orientation, and a more internal locus of control. Neither control group showed any significant improvement on these criterion measures.

9. Overall the students who participated in the student development groups in study skills or career development perceived the groups quite favorably. The end-of-group evaluations done by the students revealed that the majority of the participants rated their groups as valuable or very valuable. Most students expressed support for the continuation of this type of student development program as a part of the freshman orientation course General 100. If similar groups were to be offered in the future, a majority of the students expressed interest in the following topics: study skills, test anxiety, career decision-making, achievement motivation, communication skills, and job-hunting skills.

**Discussion**

As stated by Weigel and Weigel (1967), the objective of an effective study skills intervention is both helping students to gain knowledge about effective how-to-study techniques and to promote the application of such techniques. The task faced by a researcher in this area is how to develop, implement, and evaluate a study skills model that is directed at achieving the objective of both knowledge
and application of study skills. Although there exists a large number of research studies that have been done in the area of study skills, an examination of four major literature reviews (Entwisle, 1960; Bednar & Weinberg, 1970; Mitchell & Piatkowska, 1974; Kirschenbaum & Perri, 1982) reveals widespread use of study skills programs primarily at four-year colleges or universities. Typically, these studies have involved the more traditional college student who might be termed as an underachiever. There appears to be a serious lack of research involving the more nontraditional college student such as is found in community colleges (Federico, 1972; Becherer, 1982). With the "open admissions" policy of the community college, the need is apparent for the development of study skills programs that will assist community college students in improving their academic competence.

An analysis of study skills research reveals conflicting opinions with regard to characteristics of successful treatment programs. Entwisle (1960) concluded that voluntary participation of students in study skills programs rather than content and duration of the program was most likely to affect improvement in study habits and academic performance. Voluntary participation was also cited as a key variable by other researchers (Mitchell & Piatkowska, 1974; Kirschenbaum & Perri, 1982). Structured study skills programs are advocated by Bednar and Weinberg (1970) as
well as Kirschenbaum and Perri (1982). However, Mitchell and Piatkowska (1974) who have investigated the variables of counselor experience, treatment type, treatment duration and structure, treatment targets, and client motivation advocate unstructured, lengthy treatments. While Bednar and Weinberg (1970) also support lengthy (lasting 10 hours or longer) rather than brief treatments, Kirschenbaum and Perri (1982) conclude that for a study skills program to be effective it does not necessarily have to be a lengthy treatment. Again Kirschenbaum and Perri (1982) have stated that the evidence indicates structured multicomponent interventions often produce substantial gains in academic performance and behaviors relative to comparison and control conditions. They also have cited that interventions incorporating both study skills and self-control training appear to be representative of the more effective multicomponent treatment programs.

In this study, the researcher attempted to develop, implement, and evaluate a multicomponent model of study skills designed to improve the academic competence of community college students. Several limitations have been apparent throughout the study. One major limitation has been that the selection of the sample was based on those students at Thomas Nelson Community College who volunteered to participate in the study and signed up for a particular
student development group based on interest and schedule availability. There was no attempt made on the part of this researcher to screen potential Ss as to their suitability for a particular group. Another limitation was that the sample used for the study comprised only students who were enrolled in the General 100 freshman orientation course during the Winter Quarter 1984. This necessitated the one-quarter follow-up being conducted at the end of the Spring Quarter 1984. There appears to be a consistent pattern of decline in enrollment at this college for each successive academic quarter from the Fall Quarter through the Summer Quarter. This could possibly have affected the sample selection, S attrition, and the Spring Quarter follow-up results.

A third limitation was the length of treatments was restricted to a short duration of less than 10 hours total. Two factors impinged upon the formation of the treatments. The first was that the length of an academic quarter at Thomas Nelson Community College spans only a ten-week instructional period. The second was the difficulty of designing a multicomponent intervention program that did not demand an excessive and unreasonable amount of time and commitment from students enrolled in the one-credit General 100 course. The end-of-group evaluation results revealed that the majority of the participants felt the amount of time and assignments to be reasonable and of value to them.
Another limitation was that the combined treatment procedures did not allow for a thorough assessment of the effectiveness of individual treatment components. The overall design of the treatment program was to assess the effectiveness of a multicomponent model in comparison to an "attention placebo" control and a "no treatment" control. This did not allow for evaluating variation in both the type and duration of a particular treatment strategy.

A fifth limitation involved the dependability of the self-report inventories as measurement devices for assessing treatment outcomes. The use of the Survey of Study Habits and Attitudes as a self-evaluative instrument might have been susceptible to faked scores since it was dependent upon the student's frankness in responding. Likewise, the use of the Adult Nowicki-Strickland Internal-External Control Scales depends upon the student's accurate interpretation of the inventory items and nondissimulation of responses. As stated by Lefcourt (1976) the locus of control construct should be regarded as a cognitive/perceptual process rather than as a psychological trait.

A further limitation involved the dependent variables of GPA and credit-hour persistence rate as measures of academic performance. Kirschenbaum and Perri (1982) have indicated that GPA can be influenced by a number of factors extraneous to the experimental design. Therefore, they
advocate the use of exam scores in specific courses as more sensitive measures of academic performance. While this criticism also applies to the criterion measure of credit-hour persistence rate, it must be noted this represents an inevitable problem when an investigator attempts to undertake field research.

The use of only one academic quarter as the follow-up period in which to determine the short-term effectiveness of the treatments on academic performance constituted another limitation of the study. Since application of study skills may require the student to try out the acquired study skills over an extended period of time in a variety of academic courses and situations, substantial change in study habits, study attitudes, locus of control, and academic performance might not be evidenced until later in a student's academic career.

Based upon the results of this study, the researcher found that although students who participated in a multicomponent study skills treatment program seemed to improve from pretest to posttest on measures of study habits, study attitudes, and locus of control in comparison to controls, these changes were not significant except for the criterion of study habits. The Ss in all three treatment groups regardless of increasing the number of study skills components did gain significantly in study habits in comparison to the control groups. However, no significant
difference was found in actual academic performance as measured by quarterly GPA and credit-hour persistence rate among students who received different study skills components and students who were in control groups. An assessment of treatment outcomes was conducted as a one-quarter follow-up. These results also indicated no significant difference in academic performance among students who received different study skills components and students who were in control groups.

Recommendations

As a result of this study, several recommendations are offered for consideration in future research. First, there is an apparent need for additional research that focuses on the evaluation of study skills programs with regard to different types and duration of treatment. These investigations need to evaluate the effectiveness of single component interventions as well as multicomponent treatment programs.

Second, there is a critical need to have additional study skills research involve community college students as Ss in the evaluation of effective treatment programs. Although numerous studies have been conducted in the field of study skills, there is an apparent lack of research investigations involving nontraditional students in the research population.
Third, even though the Nonequivalent Control Group Design is an acceptable quasi-experimental design for research, an experimental approach which incorporates randomization of Ss is preferable. The Pretest-Posttest Control Group Design would rule out the problem of selection as a threat to the internal validity of the experiment. Schedule availability of community college students may be a difficult problem to overcome in order to employ randomization of Ss. Efforts to maximize the availability of a sufficient S pool could be enhanced by first surveying students' time schedules in order to eliminate the problem of schedule conflict when randomly assigning Ss to various experimental and control groups.

Fourth, future studies are needed that attempt to follow community college students from their initial enrollment in an academic program which typically involves the Fall Quarter and then assesses their progress through at least their freshman year of studies which typically spans at least three academic quarters. Such a follow-up should provide useful information on their academic performance and retention in courses as well as curricula. The effectiveness of study skills interventions then could be evaluated in terms of both the short-term and long-term goals of the students.
Fifth, additional research is needed that employs alternative and/or supplementary assessment strategies (e.g., behavioral observations of study behaviors) to the self-report inventories. This would enable a researcher to place greater confidence in the evidence of possible treatment effects. Also, the use of a more sensitive measure of academic performance (e.g., a final examination score in an academic course) than grade point average alone should serve as a more reliable criterion measure. A future investigator should probably incorporate several outcome measures in an attempt to assess the effectiveness of a treatment program.

Finally, it is recommended that similar student development groups in study skills, career development, and other student-expressed interest topics continue to be offered to community college students at Thomas Nelson Community College in the future. Student evaluations revealed an overall student perception that such a program was of value to them. It appears that community college students are receptive to such a student development program when it is incorporated into an already existing freshman orientation course and that allows for the individual student to choose to participate in a student development group focused on a developmental topic that is pertinent to the needs of the student. Similar programs could also be field-tested at other community colleges.
Appendix A
Letter to General 100 Students
December 5, 1983

Dear Student:

An opportunity exists for you to participate in a student development program as a part of the General 100 course for the Winter Quarter 1984. This program offers students a chance to gain help either in developing effective study skills or in facilitating career decision-making.

Students who desire assistance in either area may volunteer to participate in a student development group on study skills or career development. Your full participation in this program will count as an alternative assignment worth 40 points toward your final grade in General 100. If you choose to participate in a student development group, your orientation instructor will count this activity as a substitute for the following three course requirements: the seek and find activity, the library tour and quiz, and viewing the video tape on student services. This provides you an opportunity to tailor the General 100 course more to your individual needs.

If you elect to participate in this program, you will meet in a student development group for a 50-minute session per week throughout the Winter Quarter 1984. Involving lecture and discussion each group will be led by an instructor who is very knowledgeable in study skills and/or career development. The following student development groups are available:

Group 1: Study Skills (6 weeks) provides instruction in study reading, note-taking, and test-taking. It meets 12-1 p.m. Wednesdays January 11, 18, 25, February 1, 8, and 15.

Group 2: Study Skills (8 weeks) provides instruction in study reading, note-taking, test-taking, and self-regulation (a form of time management). It meets 1-2 p.m. Wednesdays January 11, 18, 25, February 1, 8, 15, 22, and 29.

Group 3: Study Skills (10 weeks) provides instruction in study reading, note-taking, test-taking, self-regulation, and motivation. It meets 11:30-12:30 p.m. Tuesdays January 10, 17, 24, 31, February 7, 14, 21, 28, and March 6, 13.
Group 4: Career Development (10 weeks) provides instruction in understanding self, occupational information, and career decision-making. It meets 12:30-1:30 p.m. Tuesdays January 10, 17, 24, 31, February 7, 14, 21, 28, and March 6, 13.

All groups will meet in Room 213 Griffin Hall.

These student development groups are part of a research project evaluating the effectiveness of a study skills program intended to improve the academic performance of community college students. By participating you may help yourself acquire skills important to your role as a college student. Your participation will also be contributing valuable information to the college on the usefulness of this type of student development program.

Please complete the attached form indicating whether or not you are interested in participating in the program. Each group will be limited to 15 students. Within one week you will receive confirmation of your place in a group. Students unable to participate because of schedule conflicts will be placed on a waiting list for future group offerings in the Spring Quarter 1984.

Thank you for your careful consideration and cooperation in this endeavor.

Sincerely,

Rex Evans
Counselor

RE/fem

Attachment
To: Rex Evans, TNCC Counselor

From: Students Enrolled in General 100 for Winter Quarter 1984*

Subject: Participation in a Student Development Group

I have carefully read the accompanying letter which explains the opportunity for me to voluntarily participate in a student development group either in study skills or in career development.

1. I agree to participate in: (check one)

   _____ Group 1
   _____ Group 2
   _____ Group 3
   _____ Group 4
   _____ Group 5

2. I am unable to participate in such a group for this quarter, but I am interested in receiving information on a similar offering in the Spring Quarter 1984. Please contact me concerning the following type of group: (check one, if applicable).

   _____ Study Skills
   _____ Career Development

3. I am not interested in participating in a student development group: (check, if applicable). _____

   My reason is: (optional) ____________________________________

Student's Name: ____________________________________________

   First   MI   Last

Student's Social Security #: ________________________________

Student's Phone #: ______________________(home)
                     ______________________(work)

General 100-____(section #)    Instructor:____________________

Student's Signature: ________________________________

Today's Date:________________________________

*Instructions: Detach this completed form from the accompanying letter. Return it to your General 100 instructor before you leave class today. Thank you.
Appendix B

Follow-up Letter to Confirm Participation

December 16, 1983

Dear

This letter is a follow-up to your request to participate in a student development group on study skills or career development. This opportunity was offered to you as an alternative assignment as a part of the General 100 course.

I have been unable to contact you by phone to confirm your place in a student development group. You expressed interest in participating in the following:

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5
- "Waiting list" for a similar offering in the Spring Quarter, 1984.

It is very important that you contact me to confirm the above request. Please call me at the Counseling Center, phone number 825-2829 or 825-2834 prior to noon December 22, 1983. The college will close for the holidays at that time and will not reopen until January 3, 1984. If I have not received a call from you by January 6, 1984, then I will assume you do not want to participate in a student development group and I will offer any remaining space to other students.

Best wishes for the holiday season.

Sincerely,

Rex Evans
Counselor
Thomas Nelson Community College

RE/as

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Appendix C

Subject Consent Forms
Appendix C

Subject Consent Form—Treatment Groups

Researcher: Rex Evans

Title of Project: An Investigation of the Motivational—
Study Skills—Self-regulatory Skills
Model for Improving Academic
Competence in Community College Students

You have been placed in a treatment group for a research project evaluating the impact of a student development program based on study skills for community college students. Your participation in this study is voluntary. Full participation in a student development group on study skills will result in your receiving an equivalent number of value points as an alternative assignment that will count toward your final grade in the General 100 course.

You will be expected to complete a brief demographic questionnaire, a study habits inventory, and a locus of control inventory at the beginning of the quarter. You will also be expected to complete the two inventories at the end of the quarter. You are allowing the researcher to monitor your GPA and credit-hour persistence during subsequent quarters at TNCC.

The researcher will insure confidentiality of all data collected on individual participants. The results of the project will be made available to any interested participant by contacting the researcher after the Spring Quarter 1984.

Thank you for your involvement in this study.

I agree to participate in this research project.

Student signature _____________________________
Print Name_______________________________
Date_______________________________
Appendix C

Subject Consent Form-Control Groups

Researcher: Rex Evans

Title of Project: An Investigation of the Motivational—Study Skills—Self-regulatory Skills Model for Improving Academic Competence in Community College Students

You have been placed in a control group for a research project evaluating the impact of a student development program based on study skills and career development for community college students. Your participation in this study is voluntary. Full participation in a student development group will result in your receiving an equivalent number of value points as an alternative assignment that will count toward your final grade in the General 100 course.

You will be expected to complete a brief demographic questionnaire, a study habits inventory, and a locus of control inventory at the beginning of the quarter. You will also be expected to complete the two inventories at the end of the quarter. You are allowing the researcher to monitor your GPA and credit-hour persistence during subsequent quarters at TNCC.

The researcher will insure confidentiality of all data collected on individual participants. The results of the project will be made available to any interested participant by contacting the researcher after the Spring Quarter 1984.

Thank you for your involvement in this study.

I agree to participate in this research project.

Student signature _______________________
Print Name______________________________
Date______________________________
Appendix D

Brief Demographic Questionnaire

The purpose of this brief questionnaire is to obtain general information about students who are interested in participating in a student development program of study skills and/or career development.

Please answer each question. Thank you for your cooperation.

1. Student's Name: ___________________________  Last  First  Middle

2. Student's Social Security Number: ________________

3. Student's Race (check one):  
   ____ Black  
   ____ White  
   ____ Other

4. Student's Sex (check one):  
   ____ Female  
   ____ Male

5. Student's Age: _____

6. Student's educational background:
   a. I received a high school diploma or GED.  Yes  No
   b. I have prior college experience.  Yes  No
   c. If you answered YES to question 6b., please indicate how many college credits you have earned.

   Quarter Credits  Semester Credits

7. Student's current status at TNCC:
   a. I am enrolled in a curriculum (program of study) leading toward an associate degree, diploma or certificate.  Yes  No
   b. If you answered YES to question 7a., please identify your curriculum.

   ____________________________________________

   c. I am enrolled this quarter as:

   ____ Full-time student (12 credits or more)  
   ____ Part-time student (less than 12 credits)
d. I am enrolled this quarter in one or more courses in developmental studies.

Yes  No

8. At the present I am working:

_____ Full-time (30 hours per week or more)

_____ Part-time (less than 30 hours per week)

_____ No
Appendix E

Nowicki-Strickland Scale

Directions: Answer each statement by responding Yes or No. If you agree with the statement, answer Yes by marking column "a" on the answer sheet provided you. If you disagree with the statement, answer No by marking column "b" on the answer sheet provided you.

Yes No 1. Do you believe that most problems will solve themselves if you just don't fool with them?

Yes No 2. Do you believe that you can stop yourself from catching a cold?

Yes No 3. Are some people just born lucky?

Yes No 4. Most of the time do you feel that getting good grades meant a great deal to you?

Yes No 5. Are you often blamed for things that just aren't your fault?

Yes No 6. Do you believe that if somebody studies hard enough he or she can pass any subject?

Yes No 7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?

Yes No 8. Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do?

Yes No 9. Do you feel that most of the time parents listen to what their children have to say?

Yes No 10. Do you believe that wishing can make good things happen?

Yes No 11. When you get punished does it usually seem it's for no good reason at all?

Yes No 12. Most of the time do you find it hard to change a friend's (mind) opinion?

Yes No 13. Do you think that cheering, more than luck, helps a team to win?

(continued on next page)
Yes No 14. Did you feel that it was nearly impossible to change your parents' minds about anything?

Yes No 15. Do you believe that parents should allow children to make most of their own decisions?

Yes No 16. Do you feel that when you do something wrong there's very little you can do to make it right?

Yes No 17. Do you believe that most people are just born good at sports?

Yes No 18. Are most of the other people your age stronger than you are?

Yes No 19. Do you feel that one of the best ways to handle most problems is just not to think about them?

Yes No 20. Do you feel that you have a lot of choice in deciding who your friends are?

Yes No 21. If you find a four leaf clover, do you believe that it might bring you good luck?

Yes No 22. Did you often feel that whether or not you did your homework had much to do with the kind of grades you got?

Yes No 23. Do you feel that when a person your age is angry at you, there's little you can do to stop him or her?

Yes No 24. Have you ever had a good luck charm?

Yes No 25. Do you believe that whether or not people like you depends on how you act?

Yes No 26. Did your parents usually help you if you asked them to?

Yes No 27. Have you felt that when people were angry with you it was usually for no reason at all?

Yes No 28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?

Yes No 29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?
Yes  No 30.  Do you think that people can get their own way if they just keep trying?

Yes  No 31.  Most of the time do you find it useless to try to get your own way at home?

Yes  No 32.  Do you feel that when good things happen they happen because of hard work?

Yes  No 33.  Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters?

Yes  No 34.  Do you feel that it's easy to get friends to do what you want them to do?

Yes  No 35.  Do you usually feel that you have little to say about what you get to eat at home?

Yes  No 36.  Do you feel that when someone doesn't like you there's little you can do about it?

Yes  No 37.  Did you usually feel that it was almost useless to try in school because most other children were just plain smarter than you are?

Yes  No 38.  Are you the kind of person who believes that planning ahead makes things turn out better?

Yes  No 39.  Most of the time, do you feel that you have little to say about what your family decides to do?

Yes  No 40.  Do you think it's better to be smart than to be lucky?
Appendix F

Letter to Waiting List Students

March 22, 1984

Dear Student,

At the General 100--Freshman Orientation session during Winter Quarter 1984, you indicated that you were interested in participating in a student development group on study skills, as outlined in my letter dated December 5, 1983. Based on the requests of a number of students, I am establishing a day section and an evening section of these groups for the Spring Quarter 1984.

If you elect to participate in this program, you will meet in a student development group for a 50-minute session per week during part of the Spring Quarter 1984. Involving lecture and discussion each group will be led by an instructor who is very knowledgeable in study skills. The following student development groups are available:

Group 1: Study Skills (6 weeks) provides instruction in study reading, note-taking, and test-taking. It meets 1-2 p.m. Wednesdays April 11, 18, 25, May 2, 9, and 16 in Room 213 Griffin Hall.

Group 2: Study Skills (6 weeks) provides instruction in study reading, note-taking, test-taking, and self-regulation (a form of time management). It meets 6-7 p.m. Wednesdays April 11, 18, 25, May 2, 9, and 16 in Room 213 Griffin Hall.

In order to allow this type of group to materialize, I must limit the size to 15 members. If you are interested in participating, please call me at the Counseling Center (825-2827), to register before April 4, 1984. The groups are limited to TNCC students who enrolled in General 100 for Winter, 1984. Your participation is voluntary.

Students who enrolled in the groups during the Winter Quarter found the sessions to be helpful in both personal and academic areas. I hope that you will be willing to join us.

Sincerely,

Rex Evans
Professional Counselor

RE:fem
Appendix G

Course Syllabi and Study Skills Instructional Module

Genl. 100 Group 1 Syllabus

Winter 1984

Student Development Group 1: Study Skills

Meeting time: 12-1 p.m. Wednesdays.
Meeting dates: January 11, 18, 25, February 1, 8, and 15.
Classroom: Room 213, Griffin Hall.
Instructor: Jerry Safko
Office is Room 326, Hastings Hall.
Phone Number is 825-2891.

Description

Offered as an optional part of the General 100 course, this student development group is designed to assist students in the development of effective study skills. By participating in a six-session group students will be exposed to a Study Skills Advice module of instruction on study reading, note-taking, and test-taking. Conducted as a structured group, the instructor will use a lecture-discussion method to teach students appropriate study skills. Through practical exercises students will be encouraged to learn and apply study skills in their own day-to-day study behavior.

Goals

Students will be expected to achieve the following:

1) Assess their own study habits and study attitudes.
2) Develop appropriate study techniques in study reading, note-taking and test-taking.
3) Employ the recently learned study skills to make their study behavior more effective and efficient.

**Topical Outline**

Session 1: Introduction, Brief Demographic Questionnaire, and Pre-test Assessment using the SSHA and ANS-IE.

Session 2: Study Reading using Robinson's (1970) SQ3R Reading Method.

Session 3: Classroom Note-taking Skills.

Session 4: Test-taking Strategies.

Session 5: Review of Study Reading, Note-taking, and Test-taking.

Session 6: Final Wrap-up, Group Evaluation, and Post-test Assessment using the SSHA and ANS-IE.

**Instructional Materials**

The instructor will provide the students with appropriate instructional handouts when necessary as a supplement to classroom instruction.

**Participation Agreement**

You have voluntarily agreed to participate in this student development group. Your full participation in this program will count as an alternative assignment worth 40 points toward your final grade in General 100. Your orientation instructor will count this activity as a substitute for the following three General 100 requirements: the seek and find activity, the library tour and quiz, and viewing the video tape on student services.
Note:

This student development group is a part of a research project evaluating the effectiveness of a study skills program intended to improve the academic performance of community college students. By participating you may help yourself acquire skills important to your role as a college student. Your participation will also be contributing valuable information to the college on the usefulness of this type of student development program. Your name will not be used in the research project and confidentiality of all data collected on individual participants will be maintained.
Genl. 100 Group 2 Syllabus

Winter 1984

Student Development Group 2: Study Skills

Meeting time: 1-2 p.m. Wednesdays.
Meeting dates: January 11, 18, 25, February 1, 8, 15, 22, and 29.
Classroom: Room 213, Griffin Hall.
Instructor: Jerry Safko
Office is Room 326, Hastings Hall. Phone # is 825-2891.

Description

Offered as an optional part of the General 100 course, this student development group is designed to assist students in the development of effective study skills. By participating in an eight-session group students will be exposed to a Study Skills Advice module of instruction on study reading, note-taking, and test-taking and a Self-regulatory Skills Training module of instruction on self-monitoring and self-reinforcement. Conducted as a structured group, the instructor will use a lecture-discussion method to teach students appropriate study skills. Through practical exercises students will be encouraged to learn and apply study skills in their own day-to-day study behavior.

Goals

Students will be expected to achieve the following:

1) Assess their own study habits and study attitudes.
2) Develop appropriate study techniques in study reading, note-taking and test-taking.

3) Develop appropriate techniques in self-monitoring and self-reinforcement of effective study behavior.

4) Employ the recently learned study skills to make their study behavior more effective and efficient.

Topical Outline

Session 1: Introduction, Brief Demographic Questionnaire, and Pretest Assessment using the SSHA and ANS-IE.

Session 2: Study Reading using Robinson's (1970) SQ3R Reading Method.

Session 3: Classroom Note-taking Skills.

Session 4: Test-taking strategies.

Session 5: Review of Study Reading, Note-taking, and Test-taking.

Session 6: Self-monitoring and Self-reinforcement of Study Behavior.


Session 8: Final Wrap-up, Group Evaluation, and Post-test Assessment using the SSHA and ANS-IE.

Instructional Materials

The instructor will provide the students with appropriate instructional handouts when necessary as a supplement to classroom instruction.
Participation Agreement

You have voluntarily agreed to participate in this student development group. Your full participation in this program will count as an alternative assignment worth 40 points toward your final grade in General 100. Your orientation instructor will count this activity as a substitute for the following three General 100 requirements: the seek and find activity, the library tour and quiz, and viewing the video tape on student services.

Note:

This student development group is a part of a research project evaluating the effectiveness of a study skills program intended to improve the academic performance of community college students. By participating you may help yourself acquire skills important to your role as a college student. Your participation will also be contributing valuable information to the college on the usefulness of this type of student development program. Any data obtained from you will be used only for research purposes. Your name will not be used in the research project and confidentiality of all data collected on individual participants will be maintained.
Genl. 100 Group 3 Syllabus

Winter 1984

Student Development Group 3: Study Skills

Meeting time: 11:30-12:30 p.m. Tuesdays.
Meeting dates: January 10, 17, 24, 31, February 7, 14, 21, 28, and March 6, 13.
Classroom: Room 213, Griffin Hall.
Instructor: Tom Kellen
Office is Room 201K, Griffin Hall
Phone # is 825-2829.

Description

Offered as an optional part of the General 100 course, this student development group is designed to assist students in the development of effective study skills. By participating in a ten-session group students will be exposed to a Study Skills Advice module of instruction on study reading, note-taking, and test-taking; a Self-regulatory Skills Training module of instruction on self-monitoring and self-reinforcement; and a module of Motivational Instruction. Conducted as a structured group, the instructor will use a lecture-discussion method to teach students appropriate study skills. Through practical exercises students will be encouraged to learn and apply study skills in their own day-to-day study behavior.

Goals

Students will be expected to achieve the following:

1) Assess their own study habits and study attitudes.
2) Develop appropriate study techniques in study reading, note-taking and test-taking.

3) Develop appropriate techniques in self-monitoring and self-reinforcement of effective study behavior.

4) Enhance student motivation through examining motivational sources, setting goals, and developing a positive self-image.

5) Employ the recently learned study skills to make their study behavior more effective and efficient.

**Topical Outline**

Session 1: Introduction, Brief Demographic Questionnaire, and Pre-test Assessment using the SSHA and ANS-IE.

Session 2: Study Reading using Robinson's (1970) SQ3R Reading Method.

Session 3: Classroom Note-taking Skills.

Session 4: Test-taking Strategies.

Session 5: Review of Study Reading, Note-taking, and Test-taking.

Session 6: Self-monitoring and Self-reinforcement of Study Behavior.


Session 8: Sources of Motivation and Goal-setting.

Session 9: Self-image, Motivation and Goals.

Session 10: Final Wrap-up, Group Evaluation, and Post-test Assessment using the SSHA and ANS-IE.
Instructional Materials

The instructor will provide the students with appropriate instructional handouts when necessary as a supplement to classroom instruction.

Participation Agreement

You have voluntarily agreed to participate in this student development group. Your full participation in this program will count as an alternative assignment worth 40 points toward your final grade in General 100. Your orientation instructor will count this activity as a substitute for the following three General 100 requirements: the seek and find activity, the library tour and quiz, and viewing the video tape on student services.

Note:

This student development group is a part of a research project evaluating the effectiveness of a study skills program intended to improve the academic performance of community college students. By participating you may help yourself acquire skills important to your role as a college student. Your participation will also be contributing valuable information to the college on the usefulness of this type of student development program. Any data obtained from you will be used only for research purposes. Your name will not be used in the research project and confidentiality of all data collected on individual participants will be maintained.
SESSION #1

General Introduction to the Student Development Program
In Study Skills and/or Career Development.

Groups 1, 2, 3, and 4

I. Introduction: welcome the students; reinforce their decision to participate in the student development group; facilitator's brief introduction (name and affiliation with the college); and students' introductions (name only).

II. Brief overview of the group by examining the syllabus. Key areas of the syllabus are: group description, goals, topical outline, and participation agreement.

III. Explain to the students that since this student development program is part of a research project it is necessary for each participant to sign a Subject Consent Form. Ask each student to read over the form and sign it. Collect the forms.

IV. General ground rules (Groveman, Richards, & Caple, 1975) for the structured groups are:

A. The following apply to Groups 1, 2, and 3:
   1. Be honest with yourself and the group about your study behavior. (General rules of confidentiality also apply).
   2. Accept responsibility for your behavior. Expect to get from the group what you in turn put into it. Do not blame others if you are not doing as well in school as you would like.
3. Commitment to use what is learned in each session.
4. Commitment to come to each session (full participation).

B. The following apply to Group 4.
1. Be open and honest with yourself and the group about engaging in career exploration. (General rules of confidentiality also apply).
2. Accept responsibility for your behavior. Expect to get from the group what you in turn put into it. The group is a means for facilitating the process of career development.
3. Commitment to use what is learned in each session.
4. Commitment to come to each session (full participation). Start and stop on time.

V. Have students fill out the Brief Demographic Questionnaire, the Survey of Study Habits and Attitudes (SSHA), and the Nowicki-Strickland Scale (ANS-IE which stands for Adult Nowicki-Strickland Internal-External Control Scale). Read over the general directions with the students. Emphasize that the answers to the SSHA and ANS-IE must be marked on the answer sheets using a pencil. Do not mark in the booklets. Remind students of the next meeting. After students have completed the
inventories and returned them to the instructor, they may leave on their own.

*Note:* Due to the time constraint of 50 minutes for the session, you will need to monitor the class time closely. Items I-IV will take approximately 15 minutes. Item V will require approximately 35 minutes. Suggest you have the students complete the SSHA first (25 minutes). If insufficient time remains, tell the students to complete and return the Brief Demographic Questionnaire, and the Nowicki-Strickland Scale before the next session.
SESSION #2

Study Reading Using Robinson's (1970) SQ3R Reading Method.

Groups 1, 2, and 3

Review:

I. Further questions about the student development program.

II. Comments about the Brief Demographic Questionnaire, the SSHA, and the ANS-IE. Collect remaining forms.

Opening:

I. Share goals for session (Groveman, Richards, & Caple, 1975).
   A. How to use reading time most efficiently.
   B. Learning the SQ3R method (Robinson, 1970).

Discussion:

I. Teaching:

   Make the point that the SQ3R method should be used each time person reads a textbook assignment. It must be used at all times or it will not work.

   A. Survey
      1. Skim over chapter headings and topic headings within each chapter.
      2. Read summary paragraph at the end of each chapter, if there is one.
      3. Notice core ideas of each chapter.
      4. Goal is to help organize ideas when chapter is completed.
B. Question
   1. Create a question from the first heading.
   2. This is done to increase curiosity about the chapter and to orient the student towards finding critical information in the chapter.
   3. Key words to ask when reading the chapter are: Why? When? and How?
   4. What ideas does the author really wish to make us aware of?

C. Read
   1. Read each chapter to answer the questions that you have developed.
   2. Do not plod--actively seek the answers.
   3. Notice words or phrases italicized.
   4. Were all your questions answered?

D. Recite
   1. Having read the first section, look away from the book and try to recite briefly in your own words the answer to your question.
   2. If you have difficulty stating the answer, then you should scan over the section again.
   3. You can enhance reciting from memory by jotting down brief cue phrases (major points) in outline form on a sheet of paper or in the margin of the text (i.e., annotation).
4. Now repeat the steps of Question, Read, and Recite with each successive headed section until the entire assignment is completed.

E. Review

1. After the assignment has been read through in this manner, look over your notes that were made to see the major points and their relationship.
2. Check your memory of the content by covering up the notes and trying to recall the major points (main ideas).
3. Then expose each major point (main idea) and try to recall the subpoints (subideas) listed.

II. Practice

A. A chapter section from a text will be used to demonstrate the entire SQ3R method. Distribute Handout #1 (Groveman, Richards, & Caple, 1975).

B. Work through this example with the students.

Distribute 3 X 5 cards on which students can write a question and the answers to that question.

Explain this method:

1. Write questions on 3 X 5 cards, and on back of cards briefly jot down the answers.
2. This can be used when studying for a test—pretend each is a test question, can you answer them?
Closing:

I. Summarize main points of the SQ3R method: Survey-Question-Read-Recite-Review. Emphasize that by using this study reading method students will benefit as a result of active reading (aid to concentration) and efficient study (aid to retention).

II. Any questions? (For a review of the SQ3R method see Robinson, 1970, chapters 2 and 3 of Effective Study).

III. Homework--distribute Handout #2, an excerpt from Pauk, 1974, chapter 10 "Master Your Textbook" of How To Study In College. Before the next session, the students should employ the SQ3R method as practice toward developing this skill of study reading.

IV. Remind students of the next session.

Handouts: Handout #1
Handout #2
Example:

The sample paragraph below is presented to demonstrate the use of SQ3R method.

Causes of the French Revolution

Although it has been argued that the reasons for the French Revolution were as numerous as the roots of a tree, there were probably three basic causes of the Revolution. The first cause centers around the emerging French middle class' desire to expand its influence within the government. The industrial revolution had created a potent middle class yearning for power. The second reason involved the French peasants. The intolerable conditions under which they were forced, by the nobility, to live made them ripe for revolution. The third reason had its source in events that happened 3,000 miles away. The recent revolution in the United States quickened within the French their own desires for democracy.

I. Survey--This paragraph is about the causes of the French Revolution.

II. Question--What are the causes of the French Revolution?

III. Read--There were three causes:

A. The middle class' desire for power.
B. The dissatisfaction of the peasants.
C. The example of the revolution in the United States.
Recite--The front of 3 X 5 card is used to write a question and the back of the card is used to write the answer.

Review--Answer the question without looking at the back of 3 X 5 card.
HOW TO USE A STUDY SYSTEM

You have just finished reading about a great many study skills, techniques, and principles. I do not recommend that you try to use all of them. In fact, you should not use any of them mechanically and serially. The purpose of the chapter has been to introduce the various possibilities and to fortify each possibility with a rationale. It is up to you to select only the techniques you think you need and can benefit from. Beware of an overload!

Don't be like the overburdened knight in armor. At first, the armor of a knight consisted of a shield, then a helmet to protect the head. Next came the coat of mail to protect the heart and chest. After that, there were no bounds except the imagination of the lord and his blacksmith. They concocted and made all sorts of special armor to eliminate any Achilles' heel. By the time the knight was fully armored, he was as protected and heavy as a hippopotamus, and as slow as a snail. Worst of all, he couldn't do the job (fighting) that he was originally supposed to do. Likewise, don't let the weight of technique keep you from doing your main job, studying.

When you have finished a textbook chapter, there is just one thing that you must be able to do: Without looking at the printed pages, you must be able to explain to your instructor, orally or on paper, the ideas and supporting details contained in that chapter. But explaining the contents of a chapter is not very easy. It is the end result of a lot of necessary work. Explaining is like the visible one-eighth of an iceberg. The invisible seven-eighths of the iceberg is like the hours and hours of work you invested in making the explanation possible.

OTHER TEXTBOOK SYSTEMS

The following systems for studying textbooks may give you some ideas on how other authors have combined and sequenced the various study steps. They are added here as a kind of postscript to the chapter, because you may want to select or modify one of them for your own use. You could even reconstruct one to fit your own personality and academic needs.

The 3 R's for Academic Survival

Here is a lean and wiry system containing all the essential techniques for mastering textbook assignments. This is an "exam passer."
R 1. Read. Read the chapter paragraph by paragraph. Read and reread until you can answer the question: "What did the author say in this paragraph?"

R 2. Record. Once you are able to describe what is in the paragraph, you will want to retain that learning by underlining, making notes in the margin, or making notes in your notebook. Above all, be courageously selective.

R 3. Recite. Cover up your notes or printed page and recite aloud. Remember if you can't say it now, you won't be able to say it tomorrow in class, nor write it next on an exam. So, while you still have a chance, try and try again until you can say it right.

The OK5R Method of Studying a Textbook

Figure 10.1 outlines the OK5R method, a complete system that includes both exam-passing techniques and knowledge-provoking techniques. Most of them have already been presented in this chapter, but with slightly different emphasis. You will be surprised to see how easily and quickly you can master your textbook chapter using this system.

The SQ3R Method of Studying a Textbook

This is probably the first (1941) truly systematic method for studying a textbook. It gained popularity not only because of its sound academic principles, but also because its name makes it easy to remember. This method is the product of a well-known psychologist from Ohio State University, Francis P. Robinson. Almost all textbook systems by other authors were either partially taken from this work or inspired by it.

SURVEY 1. Glance over the heading in the chapter to see the few big points that will be developed. Also read the final summary paragraph if the chapter has one. This survey should not take more than a minute and will show the three to six core ideas around which the discussion will cluster. This orientation will help you organize the ideas as you read them later.

QUESTION 2. Now begin to work. Turn the first heading into a question. This will arouse your curiosity and thereby increase comprehension. It will bring to mind information already known, thus
helping you understand that section more quickly. The question also will make important points stand out at the same time that explanatory detail is recognized as such. Turning a heading into a question can be done at the instant of reading the heading, but it demands a conscious effort on your part.

**READ**

3. Read to answer that question, i.e., to the end of the first headed section. This is not a passive plodding along each line, but an active search for the answer.

**RECITE**

4. Having read the first section, look away from the book and try briefly to recite the answer to your question. Use your own words and cite an example. If you can do this you know what is in the book; if you cannot, glance over the section again. An excellent way to do this reciting from memory is to jot down brief cue phrases in outline form on a sheet of paper.

Now repeat steps 2, 3, and 4 with each successive headed section: that is, turn the next heading into a question, read to answer that question, and recite the answer by jotting down cue phrases in your outline. Read in this way until the entire lesson is completed.

**REVIEW**

5. When the lesson has been read through in this way, look over your notes to get a bird's-eye view of the points and their relationship and check your memory of the content by reciting the major subpoints under each heading. This checking of memory can be done by covering up the notes and trying to recall the main points. Then expose each major point and try to recall the subpoints listed under it.

These five steps of the SQ3R method—survey, question, read, recite, and review—should result in faster reading, and fixing of the important points in the memory. You will find one other worthwhile outcome: Quiz questions will seem familiar because the headings turned into questions are usually the points emphasized in quizzes. By predicting actual quiz questions and looking up the answers beforehand, you know that you are effectively studying what is considered important in the course.

Figure 10.1 A Systematic Approach to Mastering Your Textbook Chapter.

BEFORE

OVERVIEW. Sample the chapter to find out what it is all about. Glance at the headings and subheadings to determine what ideas are being explained, what problems raised, and what questions posed. Get the big picture. Don't burrow into paragraphs. Avoid "tunnel vision!" Headings and subheadings will be future categories (advance organizers). Overview to overcome inertia and gain momentum for studying.

DURING

KEY IDEAS. All textbook writing is made up of just three literary elements: main ideas, supporting material, and transitions. Your main job is to separate the main idea from the mass of supporting material.

READ. Read only a paragraph or short section; then stop to ask: What is the main idea? How do the supporting materials support it? Which transitional words point to the main idea, and organize the supporting material? Finally: What is it in this paragraph that I need to know to describe or tell others what I have read?

RECORD. Record your comprehension! Make marginal notes and underline only key words and phrases. Better still, summarize main ideas and supporting materials in your notebook. Avoid summarizing sentence by sentence, for it's a sure sign you are missing the essential points. Chew on ideas, not words.

AFTER

RECITE. To counteract forgetting, recite! Cover your textbook or notebook page, exposing only the jottings in the margins. Then using your own words, recite aloud the ideas and supporting material. After reciting, check for accuracy. Read, record, recite in this way, paragraph by paragraph, until you complete the chapter.

(figure continues)
R4 REVIEW. After reciting, take a fresh look at your notes to fit them into a complete picture. It is easier to remember one complete jigsaw picture than a multitude of separate, seemingly unrelated jigsaw pieces. So it is with individual ideas and the total picture they present. Also, notwithstanding reciting, some forgetting will occur, so intersperse an occasional review to keep retention at a high level.

R5 REFLECT. Now, mentally manipulate these ideas, turn them over, speculate on them, compare one with the other, notice where they agree and differ. Organize and reorganize them into larger categories, or compress them into smaller units. Finally, free these ideas from the chapter and the book by weaving them into your existing knowledge, blending the new with the old.
SESSION #3

Classroom Note-taking Skills.
Groups 1, 2, and 3

Review:
I. Questions about the SQ3R method or its implementation.
II. Ask to see homework (SQ3R use of 3 X 5 cards).
III. Discuss any problems.

Opening:
I. Goals for session (Groveman, Richards, & Caple, 1975).
   A. To become proficient in classroom note taking.

Discussion:
I. Teaching:
   A. Myths about successful note taking.
      1. Don't take notes, just listen in class.
         (Can you remember everything?)
      2. Take notes only on a few important points.
         (But what is important?)
      3. Reflect a lot on lecture ideas. (By the time you reflect on a point, has the instructor moved on to something else?)
      4. Complain that the instructor is a poor lecturer. (He may be, but don't you still have to take the final test?)
   B. Steps in note taking skills.
      1. Good listening.
a. Sit near the front of the classroom, especially in a large lecture hall.

b. Don't let your mind wander, stay alert.

2. Orderliness.

   a. Attend all the lectures--excuses are easy to find--poor grades are difficult to make up.

   b. Keep classnotes for each course in either a separate notebook or different sections of the same notebook.

   c. Write legibly.

   d. Develop a simple abbreviation system, for example: i.e. (that is), & (and), .. (therefore), b (but).

C. 2-5-1 note taking format.

1. Rule your notebook into three sections.

   a. Section one is 2 inches wide.

   b. Section two is 5 inches wide.

   c. Section three is 1 inch wide.

2. Five R's of note taking.

   a. Record--during a lecture record pertinent facts and ideas the instructor has presented in the 5-inch column.

   b. Reduce--as soon after class as possible, summarize classnotes in the 2-inch column.
c. Recite—cover the 5-inch column and use the 2-inch column as cues to see if you have the ideas and facts clear.
d. Reflect—use 1-inch space for your own ideas.
e. Review—repeat step c every other week.

3. Present examples of this method using a blackboard.

II. Practice:
   A. Present actual lecture for 5 minutes.
      1. Students take notes using this method (2-5-1).
      2. Show students a good example of note taking.
         Distribute Handout #3 (Groveman, Richards, & Caple, 1975).
      3. Compare their effort to the example.

Closing:
I. Summarize note taking.
   A. Myths.
   B. Orderliness.
   C. 2-5-1 method and 5 R's.

II. Any questions? (For more details on note taking see Pauk, 1974, chapter 9).

III. Homework—bring in actual class lecture notes employing this system to the next session.

IV. Remind students of the time for the next session.
Example:

<table>
<thead>
<tr>
<th>2&quot;</th>
<th>5&quot;</th>
<th>1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce</td>
<td>Record</td>
<td>Reflect</td>
</tr>
</tbody>
</table>

Course # | Lecture topic | Student's Name
Professor | Date | Page #

3 causes of Revolution
I. Many reasons for the French Revolution
   A. Middle Class
   1) Middle Class
   1. Strengthened by Industrial Revolution
   2. Had little say in Government
   3. Wanted power

2) Peasants
   B. Peasants
   1. Forced to work on the land
   2. Could not own land of their own
   3. Also wanted power

3) U.S. Revolution
   C. American Revolution
   1. Stood as a symbol
   2. Working democracy
   3. Recently occurred
SESSION #4

Test Taking Strategies.
Groups 1, 2, and 3

Review:
I. Questions about note taking.
II. Go over homework (lecture notes for previous week).
III. Discuss any other problems.

Opening:
I. Goals for this session (Groveman, Richards, & Caple, 1975).
   A. To learn test taking strategies for both essay and objective examinations.

Discussion:
I. Teaching:
   A. General rules for all examinations.
   1. Make a schedule for review--don't cram the night before the exam.
   2. Take outlines, lecture notes, and textbook notes and prepare a summary of main topics. Use 10 to 12 major subheadings.
   3. Take all the facts, details, laws, principles, etc., and organize them under the major subheadings that were developed in #2 above.
   4. Go over prior quiz papers.
   5. If there are former examinations for this class on file then use these to quiz yourself.
B. Rules for essay exams.
1. Read all essay test directions with care.
2. Overview the entire test. This includes reading all the questions. You become familiar with the type of question, level of difficulty, and point value. Budget time.
3. Note the direction words (i.e., list, state, compare, etc.) in each question. Be sure to answer the question with precision. Distribute Handout #4 (Langan, 1982).
4. Think before you begin to write. Jot down the main points you recall in relation to the question. Then decide the order in which to present the points.
5. Within the time you have allocated to the question, write a clear, well-organized answer using good writing skills.
6. Proofread. Check the question again after you have answered it to ascertain whether or not you covered the main points and provided supportive details.

C. Rules for objective tests.
1. Read the general directions with care. Scan the entire test to get an idea of its content and organization.
2. Note the different types of objective questions:
   a. true-false
   b. multiple choice
c. matching

d. fill-in-the-blank or completion.

Distribute Handout #5.

3. Don't spend too much time on any one item. Complete the ones you know first, mark the ones that you are unsure about and return to these after you have gone through the entire test.

4. Attack each item. Narrow down your choices.

5. Don't change answers without good cause.

II. Practice

A. Present a 10-item test so students can apply the rules they have learned. First, use the following example:

Example: Sample test question.

1. Thorndike and his associationistic ideas and methods are today:
   a) of little importance in psychology.
   b) fairly well incorporated into the body of psychology.
   c) accepted exactly as Thorndike postulated them.
   d) none of the above.

Steps to follow:

1. Read the test question carefully.

2. Don't linger over this test question, or any test question, too long.

3. Narrow down the choices. Is the answer b or c?
4. After choosing what you think is the correct response (b), don't change the answer.

B. Distribute Handout #6. Depending on the time remaining in class, the students may need to go over this at home.

Closing:
I. Summarize major points.

II. Any questions? (For a detailed discussion of exam taking skills see Millman and Pauk, (1969).

III. Remind students of the time for the next session.
DIRECTION WORDS USED IN ESSAY QUESTIONS

Compare  
Show similarities between things.

Contrast  
Show differences between things.

Criticize  
Give the positive and negative points of a subject as well as evidence for these positions.

Define  
Give the formal meaning of a term.

Describe  
Tell in detail about something.

Diagram  
Give a drawing and label it.

Discuss  
Give details and, if relevant, the positive and negative points of a subject as well as evidence for these positions.

Enumerate  
List points and number them 1, 2, 3....

Evaluate  
Give the positive and negative points of a subject as well as your judgment about which outweighs the other and why.

Illustrate  
Explain by giving examples.

Interpret  
Explain the meaning of something.

Justify  
Give reasons for something.

List  
Give a series of points and number them 1, 2, 3....

Outline  
Give the main points and important secondary points. Put main points at the margin and indent secondary points under the main points. Relationships may also be described with logical symbols, as follows:

1. ______________
   a. ______________
   b. ______________

2. ______________

Prove  
Show to be true by giving facts or reasons.

Relate  
Show connections among things.
<table>
<thead>
<tr>
<th>State</th>
<th>Give the main points.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarize</td>
<td>Give a condensed account of the main points.</td>
</tr>
<tr>
<td>Trace</td>
<td>Describe the development or history of a subject.</td>
</tr>
</tbody>
</table>

Techniques for Taking Objective Tests

A. True-false questions:
1. Don't look for patterns.
2. All parts of a question must be true for it to be completely true.
3. Look for absolutes (i.e., never, always, etc.). These are usually false.
4. Leave no blanks.

B. Multiple choice questions:
1. Look for similarities between stem and response.
2. Read stem with each response.
3. Look for grammar agreement between stem and response (example--the article "an" will precede a word that begins with a vowel).
4. Guess if you can't recognize the correct answer.
   Remember these tips:
   a. longest answer is usually correct.
   b. if it is not the longest, check the shortest.
   c. usually the most general one.
   d. if there are two opposites, then one is usually correct.

C. Matching questions:
1. Read over both columns, then start.
2. Use elimination--mark ones you already used.
3. Look for associations (e.g., term-definition).
4. Determine whether or not you can use an item more than one time.

D. Fill-in or completion questions:
1. Learn key words for recall.
2. Look for clues (e.g., subject-verb agreement).
3. Look for specific facts.
4. Use the entire test as an aid for recall.
Learning Quiz—Test Taking

Student's Name: ___________________________________

Directions: Read over the entire test before you begin to mark your answers. This quiz consists of ten question. You only have to answer the even numbered questions (each is worth 2 points). Do not discuss this with anyone.

1. True or false: True–false types of tests are always easier than multiple choice types of exams.

2. True or false: Students who practice effective note taking skills and review their notes daily, weekly, and prior to exams will probably perform better in academic situations.

3. True or false: Despite the performance of the Washington Redskins in the Super Bowl, they have to be regarded as a great basketball team.

4. True or false: Unless the instructor marks off points for guessing, a student should not leave an item blank.

5. True or false: Direction words on an essay exam are not really important.

6. True or false: The direction words "compare" and "contrast" have essentially the same meaning.

7. True or false: The best strategy for taking either objective or essay types of exams is good preparation.

8. Which of the following techniques do not apply to multiple choice questions:
   a. Read the question stem with each response.
   b. Look for grammar agreement between stem and response.
   c. Read over both columns, then start.
   d. If the question is difficult, underline key words in the question stem to help you focus on what is being asked.

9. Four types of objective questions used on tests are:
   a. true–false, matching, essay, and multiple choice.
   b. true–false, multiple choice, matching, and essay.
   c. true–false, multiple choice, matching, and fill-in.
   d. all of the above.
10. When an instructor grades an essay exam question he expects a:

a. unmotivated student to perform poorly.
b. clear, well-organized answer to be written legibly.
c. formal outline to be given with your answer.
d. combination of a and c.
e. none of the above
SESSION #5

Review of Study Reading, Note Taking, and Test Taking.
Groups 1, 2, and 3

Review:
I. Ask for questions about the test taking material that was covered during the last session.
II. Discuss any problems that students have encountered.

Opening:
I. This session is designed as a review of the material (Groverman, Richards, & Caple, 1975) that has been presented on Robinson's SQ3R method, classroom note taking, and test taking.
II. Encourage students to share how useful the information has been with regard to applying techniques to their current study situations.

Discussion:
I. Review the SQ3R method of study reading:
   Survey-
   Question-
   Read-
   Recite-
   Review-
   Emphasize that the SQ3R method should help the student read more efficiently and result in better comprehension. This will aid the student in focusing on what is important and facilitate learning.
II. Review classroom note taking:
   Steps in note taking skills
   Good listening-
   Orderliness-
   2-5-1 note taking format
   Five R's of note taking
   Record-
   Reduce-
   Recite-
   Reflect-
   Review-

III. Review test taking:
   General rules for all examinations
   Rules and techniques for essay exams
   Rules and techniques for objective tests

Closing:
I. Call for any remaining questions on the material covered. This session is designed to give individuals an opportunity to express their progress to date toward incorporating these study skills into their study patterns.

II. Reinforce those students who share examples of having successfully tried to employ these skills.

III. Stress to the entire group that practice is needed to develop these skills and to make them a regular part of their study behavior.

IV. Remind the students of the time for the next session.
SESSIO N #6

Self-monitoring and Self-reinforcement of Study Behavior.
Groups 2 and 3

Review:
I. Discuss any questions about material covered.

Opening:
I. Share goals for this session (Groveman, Richards, & Caple, 1975):
   A. To learn about self-monitoring.
   B. To learn to use self-monitoring for increasing the amount of time spent studying.
   C. To improve study behavior through self-reinforcement techniques.

Discussion:
I. Teaching:
   A. What is self-monitoring? Self-monitoring is the systematic observation and recording of one's own behavior. This provides a person with information for self-evaluation and self-reinforcement.
   B. Self-monitoring provides students with valuable information about the quantity and quality of their study behavior.
   C. A special effort should be made to attend to the information recorded.
   D. Daily records of three types of information must be kept:
      1. # of pages read for all courses.
2. # of hours studied for all courses.
3. # of hours studied for the most difficult course.

E. Self-monitoring sheets should be marked every day and summed weekly.

F. Keep accurate records--this is important because it provides information that you may need to improve and increase your study behavior.

G. At the end of each week total up:
1. # of pages read for all courses.
2. # of hours studied for all courses.
3. # of hours studied for the most difficult course.

H. Indicate at the top of the page the total # of hours you plan to study next week. This should be gradually increased each week.

II. Practice:

A. Distribute Handout #7--Self-monitoring Sheet (Grovenan, Richards, & Caple, 1975).

B. Discuss its proper use with the students. Record all pages read and all hours spent studying (this does not include time spent in lectures).

Sample self-monitoring information for Thursday.
<table>
<thead>
<tr>
<th>Subject</th>
<th># of pages read for all courses</th>
<th># of hours studied for all courses</th>
<th># of hours studied for most difficult course</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH</td>
<td>4</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>SPANISH</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY</td>
<td>10</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>HISTORY</td>
<td>12</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ENGLISH</td>
<td>20</td>
<td>1/2</td>
<td></td>
</tr>
</tbody>
</table>

Totals for Thursday

49  5  2

The above totals for Thursday are entered on the sheet.

III. Teaching:

A. Self-reinforcement is rewarding oneself for good study behavior. The reward can be either covert (self-praise) or overt (watching T.V. or getting a snack).

B. The basic procedure for self-reinforcement is:
Study--Self-record study behavior--Evaluate study behavior--Self-reinforce.

C. When to use self-reinforcement:
1. When you have met your study goals.

IV. Practice:

A. Distribute Handout #8--Self-reinforcement.
Examples Page (Groveman, Richards, & Caple, 1975).
Discuss how to use this technique.
**Example:**

Sample of the self-reinforcement procedure.

Study—Self-record study behavior—Evaluate study behavior—Self-reinforce.

1. Study—Math, Spanish, History.
2. Record—Math, 2 hours; Spanish, 1 hour; History, 2 hours.
3. Evaluate—I did a highly satisfactory job of studying today.
4. Self-reinforcement—
   a. Self-praise thought—"I really did a fine job of studying today!"
   b. Overt self-reward—Go out for a pizza.

**Closing:**

I. Summarize major points.
   A. What is self-monitoring?
   B. How to use self-monitoring.
   C. Why self-monitoring is helpful.
   D. What is self-reinforcement?
   E. When and how to use self-reinforcement to improve your studying.

II. Answer any questions that the students may have.

III. Homework—request the students to try the self-monitoring technique for one week starting today. Have them use Handout #7 to chart their progress. Request the students use the reinforcement technique using Handout #8. Have students bring both sheets back to the group next week.

IV. Remind students of the next meeting.
Name: __________________________________

Number of hours you plan to study for the week: ________.

<table>
<thead>
<tr>
<th>DATE</th>
<th># OF PAGES READ</th>
<th># OF HOURS STUDIED FOR MOST DIFFICULT COURSE</th>
<th># OF HOURS STUDIED FOR ALL COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>WED.</td>
<td>___ PAGES</td>
<td>___ HR.</td>
<td>___ HR.</td>
</tr>
<tr>
<td>THURS.</td>
<td>___ PAGES</td>
<td>___ HR.</td>
<td>___ HR.</td>
</tr>
<tr>
<td>FRI.</td>
<td>___ PAGES</td>
<td>___ HR.</td>
<td>___ HR.</td>
</tr>
<tr>
<td>SAT.</td>
<td>___ PAGES</td>
<td>___ HR.</td>
<td>___ HR.</td>
</tr>
<tr>
<td>SUN.</td>
<td>___ PAGES</td>
<td>___ HR.</td>
<td>___ HR.</td>
</tr>
<tr>
<td>MON.</td>
<td>___ PAGES</td>
<td>___ HR.</td>
<td>___ HR.</td>
</tr>
<tr>
<td>TUES.</td>
<td>___ PAGES</td>
<td>___ HR.</td>
<td>___ HR.</td>
</tr>
<tr>
<td>WEEKLY TOTALS</td>
<td>___ PAGES</td>
<td>___ HR.</td>
<td>___ HR.</td>
</tr>
</tbody>
</table>
SELF-REINFORCEMENT EXAMPLES PAGE

Please fill out this page with the required information.

1. Study: ______________________________________________________________________

____________________________________________________________________________

2. Record Studying: ______________________________________________________________________

____________________________________________________________________________

3. Evaluate: ______________________________________________________________________

____________________________________________________________________________

4. Self-reinforcement:
   a. Self-praise thought- "________________________

____________________________________________________________________________
   "
   b. Overt self-reward- ______________________________________________________________________

____________________________________________________________________________
SESSION #7

Groups 2 and 3

Review:

I. Questions about self-monitoring and self-reinforcement.

II. Ask them to show and discuss their homework from the previous session on self-monitoring and self-reinforcement strategies. You may want to have them to first form dyads and discuss the results of their first attempts at monitoring their study behavior and at reinforcing their successful endeavors.

III. Process this activity as a group. Discuss difficulties encountered as well as positive outcomes.

Opening:

I. Goals for this session (Grovenman, Richards, & Caple, 1975):

   A. Continue to learn about self-monitoring and its applications.
   
   B. Continue to learn about self-reinforcement and its usefulness in conjunction with self-monitoring.

Discussion:

I. Teaching:

   A. Review the definition of self-monitoring. Emphasize both the systematic observation and recording aspects. Note the value of looking at each day's work and at the week's work as a whole. Have the students evaluate the amount of study time spent and the
number of pages read. Each student needs to evaluate the progress made to date.

B. Review the strategy of self-reinforcement.
Emphasize the value of both covert (self-praise) and overt (tangible) rewards. Stress the importance of rewarding only successful attempts at engaging in desirable study behavior. Highlight the basic procedure for self-reinforcement: study--self-record study behavior--evaluate study behavior--self-reinforce. Point out the importance of establishing study goals and rewarding effective study behavior.

II. Practice:
A. Request the students continue the self-monitoring procedure for the next week. Encourage them to make adjustments in the amount of study time needed and the work to be done.

B. Request that they continue to use self-reinforcement technique in conjunction with self-monitoring. Encourage them to reward themselves for staying with the self-monitoring procedure for another week.

Closing:

I. Summarize the major points discussed in the session.

II. Answer any remaining questions.

III. Stress the importance of practice as a means of learning a new behavior and making such a part of one's study pattern. Note the positive outcomes.

IV. Remind students of the next session.
SESSION #8

Sources of Motivation and Goal-setting.

Group 3

Review:

I. Answer any remaining questions that students have on self-monitoring and/or self-reinforcement.

Opening:

I. Goals for the session:
   A. To help the students gain an understanding of the importance of motivation as relates to their role as a student.
   B. To learn the importance of setting goals.

Discussion:

I. Teaching:
   A. Motivation is a general term referring to the forces regulating behavior that is undertaken because of drives, needs or desires, and is directed toward goals. Stated in simple terms, motivation is the reason "why" we do things or the "will" to do something.
   B. It is helpful to look at some factors that determine our motivation. Three of these factors are: needs (physiological, emotional, etc.), interests (likes and dislikes), and demands (expectations placed on the individual by others or self-imposed).
   C. There are two sources of motivation. The first source is intrinsic motivation which means that you do
something because you want to do it or it is based on an internal desire. There are no external or tangible rewards associated with it. The second source is extrinsic motivation which means that you do something because of external or tangible rewards or due to external demands or pressure exerted by others.

D. Now with this information as background let us focus on improving scholastic motivation (Brown, 1970). Psychologists have long recognized the relationship between motivation and achievement. In fact, the motivation factor is considered to be one of the most important determiners of success or failure in any area of human endeavor.

E. Ask yourself this important question: "Am I sufficiently motivated to accept the challenge of college study?" It is necessary for you to examine your reasons for going to college. Are these representative of intrinsic or extrinsic motivation? Secondly, it is necessary to develop some definite plans for the future. This is where goal-setting comes into the picture. Lastly, you must examine whether or not you are sufficiently mature to handle college freedoms and responsibilities. You may need to think of attending college as a job and most importantly that you are self-employed. You determine your success or failure.
F. The following eight steps can help you increase your scholastic motivation:

1. Think through why you are attending college and develop some realistic and meaningful reasons to pursue an education.
2. Formulate some realistic and meaningful educational and occupational goals.
3. Try to correlate your coursework with your occupational plans.
4. Try to get experience doing work that is closely related to your chosen occupation.
5. Try to get to know others who share your educational and vocational interests.
7. Prepare a visual record of your progress in each course and display it in a prominent place.
8. Make a sincere effort to improve your study efficiency.

G. In summary, the key to improving your scholastic motivation lies in knowing what you want from college and why you want it.

H. Now that we have looked at the importance of motivation, we need to identify the goals that are the targets of our motivation. Goal-setting is a planning process that requires us to set a goal and a plan on how to achieve it.
I. A goal is something that you try to achieve in order to satisfy yourself. People set goals in many different areas of their lives: education, learning, studying, career development, personal growth, interpersonal relationships, material possessions, etc.

J. Life goals (Cordell & Giebler, 1978) are general statements of where you would like to go with your life—things you would like to achieve, to be, or to do. Life goals represent our major goals or long-term goals. These give us a general direction in which to move. It is important that we clarify our life goals, determine their priority in our lives, and refine them so as to enable us to see more clearly what they involve and how to go about achieving them.

K. Long-term goals are only achieved through the process of establishing and accomplishing several short-term goals. Short-term goals are more immediate. Often it is the attainment of short-term goals that help sustain our motivation to pursue and accomplish our life goals.

L. It is important that we clearly define our goals. There are several characteristics that help us to do this step of defining an effective goal. Our goal must be realistic but that is not to say it cannot be challenging. Our goal needs to be meaningful so that
it will sustain our motivation to accomplish it. Also, our goal must specify what we are wanting to achieve and what action is required from us in order to attain the goal. The goal should be measurable in that you could write down the needed amount of change and monitor if you are accomplishing it. Lastly, an effective goal should be observable in that it identifies a specific behavior that you can observe. The following is an example of an effective study goal: "I will study ten hours per week in the college library between the hours of 2:00 to 4:00 p.m. on Mondays through Fridays."

II. Practice:

A. Ask the students to think about the relationship between motivation and setting goals. Distribute Handout #9.

B. Homework: Have each student complete the handout before the next session.

Closing:

I. Point out to the students the value of setting goals and being motivated. Also, show how they are so importantly related with each other. You may want to illustrate the relationship by making reference to the former material on self-monitoring and self-reinforcement.

II. Remind the students of the next session.
Improving Motivation and Setting Goals

I. Think about your role of being a student and describe your reasons for attending college. Evaluate these reasons and describe how you could improve your scholastic motivation.

II. Write out one of your long-term goals as relates to your education.

III. Write out a short-term goal that you must accomplish in order to move towards achieving the long-term goal.
SESSION #9

Self-image, Motivation and Goals.

Group 3

Review:

I. Go over homework with the students. Have some of the students share their goals. Emphasize the criteria of an effective goal. Point out the relationship between goals and motivation.

II. Answer questions that may be asked about possible problems in setting goals.

Opening:

I. Each of us has a self-image. It is important that each person look at the image that he or she has developed and determine how we can strengthen that self-image.

II. In their book entitled *Take 10 To Grow*, Cordell and Giebeler (1978) provide us with some ideas on building a competent self-image. As you set goals, motivate yourself, and make choices about how to use your time, you call up in your mind an image of yourself and choose to do things that are consistent with that image. Sometimes this promotes growth, but sometimes not. If you see yourself as an adventurous, skillful, competent, and lovable person, you will act with courage and love. If you see yourself as a limited, unskilled, and unlovable person, you will act in a frightened and
destructive way in conformity with that image. In that case, personal growth means changing your self-concept. Your self-concept was formed and is maintained by means of a complex process starting with the names people gave you and what messages they sent to you about yourself. You believed them, and that is how your self-concept got started. It has since grown and been maintained by the things you tell yourself and notice about yourself.

Discussion:

I. In order to intentionally create a positive self-concept, you must acquire three skills: 1) you must recognize that what others told you about yourself was not always accurate; 2) you must learn to make your self-talk—the things you tell yourself about yourself—positive and constructive; and 3) you must learn to notice the fine, beautiful, and loving things you do rather than your mistakes and inadequacies.

II. We can build a more positive self-image just as we can build more self-confidence—by recognizing success. We all have an image of ourselves that we use as a point of reference in our feelings and behavior. If we see ourselves as competent and able to do things, we feel confident and take psychological risks. Conversely, if we see ourselves as incompetent, we lack confidence and feel threatened by new tasks and situations. Your self-concept is formed by the messages you received
from the significant people in your life and by experiences that occurred during the formative years. As you grow older, you forget the early messages and experiences; your self-concept is maintained by the things you continually tell yourself in your self-talk and by the selective perceptions you make of your experiences. Change is possible by making more adventurous decisions and by giving yourself credit for the successes you do experience. Rebuild your self-image by: 1) explore your self-concept and dismiss the negative messages you received as a child; 2) take some chances and avoid always playing it safe by choosing some psychological risks and some adventures; 3) credit yourself for your efforts and for the success that you do experience in your life; and 4) change the tone of your self-talk to positive, self-supportive statements.

III. When you are successful, you think the world is beautiful and you are proud of yourself. When you fail, you conclude that you have little power over things and that you must fight the world to protect yourself. We all try to interpret our experiences and make sense of them. Our interpretation of what happens is at least as important as what actually happens. We can control the interpretation even when we cannot control the event. Our self-talk is the key to the
tone of our interpretation. You may ask yourself "How and why do I maintain a poor self-concept after I have recognized it and decided to change it?" You maintain a poor self-concept in two important ways: 1) by negative self-talk, and 2) by selective perception that puts you down. Remember the tone of your self-talk is crucial in maintaining or changing your self-image. With regard to selective perception, you take into account and register only part of your experience. If you notice and internalize only the negative aspects of your life, you will maintain a negative self-image. However, if you use selective perception to pinpoint the positive aspects of your life, you can build a more powerful self-concept and change your whole attitude about yourself.

IV. Suggest to the students to develop a success journal. This can be made up of their goals and their success in pursuing such goals. Develop a "to do" list on a daily basis and evaluate the progress made each day in accomplishing the items on the list. Then the person should recognize their success and give themselves some positive self-talk.

Closing:

I. Summarize the importance of building a more positive self-image. Emphasize again the role that motivation and goals play in this process of growth.
II. Briefly, review how the topics covered in the ten sessions fit together and can result in each individual being a more successful and self-directed student.

III. Remind them of the final meeting next week.
FINAL SESSION

Final Wrap-up, Group Evaluation, and Posttest Assessment.
Groups 1, 2, 3, and 4

Review:
I. Since this is the last session for the group, you will want to provide an opportunity for students to ask any remaining questions.

Opening:
I. Acknowledge to the students your appreciation for their participation in the student development group. You may provide them with feedback on how you have perceived the group and your role as a group facilitator.

II. Inform them that their orientation instructor will be contacted by the researcher to confirm their completion of this group as a part of the General 100 course.

Discussion:
I. Distribute and collect the End-of-Group Evaluation form.

II. Administer the Survey of Study Habits and Attitudes and the Nowicki-Strickland Scale. Briefly review the directions with the students. Remind them to mark their answers on the answer sheets using a pencil. Do not mark in the booklet.

Closing:
I. State that since this is part of a research project the researcher will insure confidentiality of all data collected. The results of the research project
will be made available to any interested participant by contacting the researcher after the Spring Quarter 1984. Thank them for their participation.

II. Good-byes.
End-of-Group Evaluation

Groups 1, 2, and 3

Directions: Please take a few minutes to evaluate this student development group in study skills. Be open and honest in your evaluation. Thank you for your interest and participation in the program.

PLEASE DO NOT PLACE YOUR NAME ON THIS EVALUATION FORM.

1. Indicate to what degree you found the following content areas to have practical value for you as a student.

   NOTE: Circle a number for each item as follows:

   Group 1 participants should complete items a-c;
   Group 2 participants should complete items a-e;
   Group 3 participants should complete items a-f.

<table>
<thead>
<tr>
<th></th>
<th>Very Valuable</th>
<th>Valuable</th>
<th>Average Value</th>
<th>Limited No Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. SQ3R Study Reading</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>b. Note taking</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>c. Test taking</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>d. Self-monitoring</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>e. Self-reinforcement</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>f. Motivation</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

2. Did you find the number of sessions to be?

   ____ too many
   ____ reasonable
   ____ not enough

3. Did you find the length of each session to be?

   ____ too long
   ____ sufficient
   ____ too short

4. Did you find the instructional approach (lecture-discussion-homework) to be effective?

   ____ Yes
   ____ No

Suggestions (if any): ____________________________________________
5. How would you evaluate the amount of homework?
   
   ___ too much
   ___ reasonable
   ___ not enough

6. How would you evaluate the usefulness of homework?
   
   ___ very useful
   ___ somewhat useful
   ___ not useful

7. Did you find the non-graded approach to be effective that was used by the instructor/group facilitator?
   
   ___ Yes
   ___ No
   
   Comments (if any): ____________________________________________

8. Would you say that the instructor/group facilitator presented the instructional material in an effective manner?
   
   ___ strongly agree
   ___ agree
   ___ undecided
   ___ disagree
   ___ strongly disagree

9. Would you say that the instructor/group facilitator showed genuine concern for the group participants?
   
   ___ strongly agree
   ___ agree
   ___ undecided
   ___ disagree
   ___ strongly disagree

10. Would you say that your participation in this study skills group has helped you to acquire more effective study behaviors?
    
    ___ strongly agree
    ___ agree
    ___ undecided
    ___ disagree
    ___ strongly disagree
11. Would you say that your participation in this study skills group has helped you to acquire a more effective study attitude as a student?

_____ strongly agree
_____ agree
_____ undecided
_____ disagree
_____ strongly disagree

12. Do you think that your participation in this group has helped you to improve your academic performance for this quarter?

_____ Yes
_____ No

Comments (if any):

__________________________________________________________________________

13. Do you feel that your participation in this group has helped you to persist in your role as a student in college?

_____ Yes
_____ No

Comments (if any):

__________________________________________________________________________

14. Would you recommend that this type of student development group continue to be offered?

_____ Yes, but it should be a mandatory requirement for all students in General 100.

_____ Yes, it should be offered on an optional or voluntary basis with a point value in General 100.

_____ Yes, it should be offered on an optional or voluntary basis without a point value in General 100.

_____ No (specify reason):

__________________________________________________________________________

_____ Other (please specify):

__________________________________________________________________________
15. Would you recommend that the Counseling Center offer some of the following types of student development groups? (Check those you consider important).

- achievement motivation
- assertiveness training
- career decision-making
- communication skills
- job-hunting skills
- sexuality
- stress management
- study skills
- test anxiety
- other (specify):
- moral issues
- personal growth
- relationship skills

16. In your own words please state your overall evaluation of this student development program. Feel free to honestly state your comments and/or suggestions. Thank you for your input.
Appendix H

Course Syllabus and Career Development Instructional Module

Genl. 100 Group 4 Syllabus

Winter 1984

Student Development Group 4: Career Development

Meeting time: 12:30-1:30 p.m. Tuesdays

Meeting dates: January 10, 17, 24, 31, February 7, 14, 21, 28, and March 6, 13.

Classroom: Room 213, Griffin Hall

Instructor: Tom Kellen
Office is Room 201K, Griffin Hall
Phone Number is 825-2829.

Description

Offered as an optional part of the General 100 course, this student development group is designed to assist students in the career development process. By participating in a ten-session group students will be exposed to a Career Decision-making module of instruction to help them gain a better understanding of themselves, expand their awareness about occupational information, and examine career decision-making as a process. Conducted as a structured group, the instructor will use a lecture-discussion method to guide students through a career development process. Through practical exercises students will be encouraged to explore themselves and the world of work as related to making a career decision.

Goals

Students will be expected to achieve the following:

1) Gain a greater awareness of individual interests,
skills, personal values, work values, and lifestyle preferences as they relate to career development.

2) Develop skills to investigate the world of work, and identify career ideas that reflect consideration of important self-information.

3) Examine the process of decision-making as a vital part of career development.

**Topical Outline**

Session 1: Introduction, Brief Demographic Questionnaire, Pretest Assessment using the SSHA and ANS-IE.

Session 2: Understanding Your Interests and Work Values.

Session 3: Identifying Your Skills and Personal Values.

Session 4: Recognizing Lifestyle Preferences.

Session 5: Prospecting for Career Ideas and Examining the World of Work.

Session 6: How to Investigate a Career.

Session 7: Examining Occupational Information.

Session 8: What to Look for When Investigating a Career.

Session 9: Self-information, Career Information, and Decision-making.

Session 10: Final Wrap-up, Group Evaluation, and Posttest Assessment using the SSHA and ANS-IE.

**Instructional Materials**

The instructor will provide the students with appropriate instructional handouts when necessary as a supplement to classroom instruction.
Participation Agreement

You have voluntarily agreed to participate in this student development group. Your full participation in this program will count as an alternative assignment worth 40 points toward your final grade in General 100. Your orientation instructor will count this activity as a substitute for the following three General 100 requirements: the seek and find activity, the library tour and quiz, and viewing the video tape on student services.

Note:

This student development group is a part of a research project evaluating the effectiveness of a study skills program intended to improve the academic performance of community college students. By participating you may help yourself acquire skills important to your role as a college student. Your participation will also be contributing valuable information to the college on the usefulness of this type of student development program. Any data obtained from you will be used only for research purposes. Your name will not be used in the research project and confidentiality of all data collected on individual participants will be maintained.
SESSION #1

General Introduction To The Student Development Program
In Study Skills And/Or Career Development.

Groups 1, 2, 3, and 4

I. Introduction: welcome the students; reinforce their
decision to participate in the student development
group; facilitator's brief introduction (name and
affiliation with the college); and students'
introductions (name only).

II. Brief overview of the group by examining the syllabus.
Key areas of the syllabus are: group description,
goals, topical outline, and participation agreement.

III. Explain to the students that since this student
development program is part of a research project it
is necessary for each participant to sign a Subject
Consent Form. Ask each student to read over the form
and sign it. Collect the forms.

IV. General ground rules (Groveman, Richards, & Caple,
1975) for the structured groups are:

A. The following apply to Groups 1, 2, and 3:
   1. Be honest with yourself and the group about
      your study behavior. (General rules of
      confidentiality also apply).
   2. Accept responsibility for your behavior.
      Expect to get from the group what you in turn put
      into it. Do not blame others if you are not doing
      as well in school as you would like.
3. Commitment to use what is learned in each session.
4. Commitment to come to each session (full participation). Start and stop on time.

B. The following apply to Group 4:
1. Be open and honest with yourself and the group about engaging in career exploration. (General rules of confidentiality also apply).
2. Accept responsibility for your behavior. Expect to get from the group what you in turn put into it. The group is a means for facilitating the process of career development.
3. Commitment to use what is learned in each session.
4. Commitment to come to each session (full participation). Start and stop on time.

V. Have students fill out the Brief Demographic Questionnaire, the Survey of Study Habits and Attitudes (SSHA), and the Nowicki-Strickland Scale (ANS-IE which stands for Adult Nowicki-Strickland Internal-External Control Scale). Read over the general directions with the students. Emphasize that the answers to the SSHA and ANS-IE must be marked on the answer sheets using a pencil. Do not mark in the booklets. Remind students of the next meeting. After students have completed the inventories and returned them to the instructor, they may leave on their own.
Note: Due to the time constraint of 50 minutes for the session, you will need to monitor the class time closely. Items I-IV will take approximately 15 minutes. Item V will require approximately 35 minutes. Suggest you have the students complete the SSHA first (25 minutes). If insufficient time remains, tell the students to complete and return the Brief Demographic Questionnaire, and the Nowicki-Strickland Scale before the next session.
SESSION #2

Understanding Your Interests and Work Values

Group 4

Review:

I. Further questions about the student development program.

II. Comments about the Brief Demographic Questionnaire, the SSHA, and the ANS-IE. Collect remaining forms.

Opening:

I. This session starts out with a "warm-up" exercise to help the participants get to know each other. Pair up and introduce self to partner; take two minutes to say something about self and where you see yourself in career planning--maybe some tentative career ideas the person has.

Discussion:

I. Career Life Planning (Curtin & Hecklinger, 1981):
overview this as a process for the group.

Career life planning is a continual process of assessing where you are headed in your life and career and of deciding whether or not you wish to make changes. In order to make these life and career decisions, it is important that you know about three distinct but essential areas:

- Yourself, which involves taking an inventory of your interests
- skills and abilities
The world of work, which involves the evaluation of your own career, if you have one, and other potential careers through
--research
--experience
--informational interviewing
--decision-making
--job revitalization

Other opportunities not necessarily connected with work that may help you to change your lifestyle, such as
--education
--leisure activities
--community service
--retirement planning

After an in-depth look at your own goals and lifestyle preferences and a comprehensive evaluation of the career change and other options open to you, you will then be ready to make an effective decision.

Making a life or career decision is a big step. At this juncture, you will want to set up a plan to carry out your
decision. This might include some of the following short-term goals:

- Obtain more specific training or "brush-up work on a skill.
- Make some changes in your present job that will increase your job satisfaction.
- Update your resume.
- Make changes in your lifestyle.
- Improve your interviewing style.
- Return to school.
- Investigate other job opportunities.
- Become involved in community activities that interest you.
- Plan a second career to enter in a few years.
- Plan for your retirement.

The short-term goals that you establish for yourself will eventually help you to make the changes that you feel are appropriate to fulfill your life and career plans. It is only through planning, evaluating, investigating, reviewing, and decision-making that you can begin to put the career planning process to work for you.

II. Explain that the material that you will use in printing this module on career development is drawn from the Career Life Assessment Skills Series developed by Curtin and Hecklinger (1981) from Northern Virginia Community College.
This material is designed to help you evaluate several factors about yourself that are important in planning your life and career. Your life is a process of maturing, developing, and growing. You have unique characteristics, needs and goals. The lifestyle or career that is best for a friend, parent, or relative may not be best for you. It is important that you make decisions based on your own evaluation of the direction that you want to take in life. In order to begin this process, it is important for you to ask yourself the following questions:

1) What are my interests? How do they relate to a career I might choose?

2) What are my work values? How important are they in choosing a job or career?

3) What are my skills? What new skills would I like to develop?

4) What are my values? What effect do they have on my career and way of life?

5) What are my lifestyle preferences? How do they relate to a career I may choose?

These questions are important to consider at any time in your life and career evaluation process. If you are just beginning to consider the type of career you may choose, consideration of these questions can help you to make better choices. If you are thinking about changing careers, it is important to consider these
questions before deciding what type of change you want. If you are thinking about starting a new career after having been a homemaker, answering these questions can help you to get started. Use the following information, checklists, and exercises to help you answer these questions. Supplement this with discussions with family, friends, and counselors. There is no one right way to begin a life and career planning process. The most important thing is to do something—don't procrastinate. Taking account of your own unique needs and characteristics is a good way to start.

III. The remainder of the class will focus on "interests" and "work values."

**INTERESTS**

Your interests can give you insight into career and lifestyles that can be satisfying and fulfilling. If you can enter a career that is related to your interests, your chances of enjoying and being successful in that career are enhanced. Your interests can also be the key to developing a fulfilling lifestyle. It is unreasonable to expect that most of your interests will be fulfilled in a career. You should be able to develop interests outside of work in order to give yourself a varied and enriched lifestyle. It is therefore important to:
1) Identify your interests.
2) Evaluate which interests are most important to you.
3) Determine how your interests may relate to a career.
4) Determine how other interests can be fulfilled outside of your career.

Distribute the handout—"Twenty Things I Like to Do" and "Clarifying Interests." Explain the use of these handouts and assign as homework.

WORK VALUES

In choosing a career or in making a career change, it is important to consider what you value most about your work. What must your work have in order to make it rewarding to you? Is it important that you be your own boss? Do you really want to work outdoors most of the time? What kind of responsibility do you need? Do you want to work with people or work alone? The answers to these questions and others depend on your work values. The following activity will help you to define your work values.

Distribute the handout—"Clarifying Values" and assign as homework.

Closing:

I. The mindset should be that you are going to guide them along some of the key "stepping stones" in the career planning process. Some exercises will be used to help
achieve this; however, the student will have to
decide how much to put into the process outside of
class.

II. Conclude first session with reminder of next meeting.
<table>
<thead>
<tr>
<th>Twenty Things I Like to Do</th>
<th>List X, A, P, $, O, L, as Appropriate</th>
<th>Setting</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>4.</td>
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<td>5.</td>
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<td>6.</td>
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<td>7.</td>
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<td>8.</td>
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<td>9.</td>
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<td>10.</td>
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<td>11.</td>
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<td>16.</td>
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<td>17.</td>
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<td>18.</td>
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<tr>
<td>19.</td>
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<tr>
<td>20.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Handout continued)
Discuss your list, if you wish, with friends, family, or your counselor. Think about how you may best pursue your interests and of other interests you might wish to develop. Consider which interests may be fulfilled in your career. Do you have interests that would require your living in a particular setting? Record your thoughts in the comments section of the chart.

Clarifying Interests

Using the chart below, try to list as many ways as you can of pursuing these interests. For example, if you have a major interest in athletics, you can pursue this interest by being a physical education teacher, by participating in athletics, by coaching, by selling athletic equipment, by watching athletic events, and by reading about athletics. These are all ways of fulfilling an interest, but range from a career to leisure activity, from active to passive involvement. Be creative and list as many possible ways of pursuing your interests as you can.

<table>
<thead>
<tr>
<th>Major Interests</th>
<th>Activities, Occupations, and Other Ways of Pursuing These Interests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
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<td>2)</td>
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<tr>
<td>3)</td>
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<td>4)</td>
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<tr>
<td>5)</td>
<td></td>
</tr>
</tbody>
</table>

You may also wish to further explore your interests by taking one or more interest inventories. Some of the more widely available inventories are:

- The Strong-Campbell Interest Inventory
- The Self-Directed Search: A Guide to Educational and Vocational Planning
- The Career Assessment Inventory
- The Kuder Career Interest Survey

These inventories help you to categorize your interests and compare them with the interests of people who are working in various occupational areas. If you are interested in taking one of these inventories, check with the counseling office at the campus nearest you.

Clarifying Values

The following inventory consists of twenty items, each describing the two extremes of a major work characteristic. For each item, check the space which best describes your own work values.

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Work for organization</td>
</tr>
<tr>
<td>2. Work with other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Work alone</td>
</tr>
<tr>
<td>3. Unstructured work: room for creativity and initiative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Structured environment, well-defined duties and responsibilities</td>
</tr>
<tr>
<td>4. No supervision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Close supervision</td>
</tr>
<tr>
<td>5. High level of responsibility: make key decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low level of responsibility: no critical decisions</td>
</tr>
<tr>
<td>6. Long hours and weekend work usual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Short hours: 8 hours per day maximum</td>
</tr>
<tr>
<td>7. Possible overtime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Guaranteed regular hours</td>
</tr>
<tr>
<td>8. Similar duties every day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Variety of duties daily</td>
</tr>
<tr>
<td>9. Security offered in work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Challenges and risks in visible end products: specific achievable goals</td>
</tr>
<tr>
<td>10. Slow pace, low pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fast pace, high pressure</td>
</tr>
<tr>
<td>11. Can't see results of work: long-range goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Live very close to work</td>
</tr>
<tr>
<td>12. Work outdoors in all weather and conditions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Work indoors in pleasant environment</td>
</tr>
<tr>
<td>13. Work in specific geographical area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Willing to relocate anywhere</td>
</tr>
<tr>
<td>14. Work for small business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Work for large business</td>
</tr>
<tr>
<td>15. Low prestige and status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High prestige and status</td>
</tr>
<tr>
<td>16. Few opportunities for advancement and professional development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Many opportunities for advancement and professional development</td>
</tr>
<tr>
<td>17. Live half-hour or more from work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Close work with machines</td>
</tr>
<tr>
<td>18. Little work with machines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Early retirement</td>
</tr>
<tr>
<td>19. Work opportunities after 65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Frequent travel</td>
</tr>
<tr>
<td>20. Little or no travel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Frequent travel</td>
</tr>
</tbody>
</table>

(Handout continued)
Now look back at your responses. Summarize at least five work values that are most important to you. Feel free to list more than five if you wish.

1.  
2.  
3.  
4.  
5.  
6.  
7.  
8.  
9.  
10.  

SESSION #3

Identifying Your Skills and Personal Values

Group 4

Review:
I. Begin the session with a quick review of the major points covered in the previous session. Spend a few minutes to allow students to report on their homework.

Opening:
I. Stress again the mindset should be that you are going to guide them along some of the key "stepping stones" in the career planning process.

Discussion:
I. Introduce the concept of "skills" using the following:

Skills (Curtin & Hecklinger, 1981).

Everyone has a variety of skills and you are no exception. A skill is simply an ability to do something. Some skills take a long time to learn and develop. Others come much more easily and seem to be a natural part of your makeup. Some skills are very specialized and apply only to a certain type of activity. Others are more general and can apply to a variety of situations. Although everyone has hundreds of skills, most people tend to overlook their skills and even to downgrade them. Often people look only for their major skills rather than acknowledging the many small but important skills that one uses every day. In our
society, it has traditionally been more acceptable to acknowledge our negative qualities and weaknesses than to acknowledge our skills and what we do well. One does not want to appear to be bragging. Dwelling on lack of skills and weaknesses can also be used as excuses for not doing something, for not changing one's life.

It is important for you to acknowledge that you have skills, that these are important, that you can improve on existing skills, and that you can develop new skills. The following activities are designed to assist you in identifying your skills and in understanding better the different skills that you have. According to Bolles (1978) your skills can be classified in three areas:

1) Self-Management Skills
2) Functional Skills
3) Work-Content Skills

A. Self-Management Skills

How do you relate to other people? Are you punctual? Are you organized? How do you perform under stress? Are you enthusiastic? These are all self-management skills. One might call these personality traits or character traits, since they are a basic part of your nature, but they are, in reality, skills. These skills are specific to you
and do not depend on any particular job or career. They can, however, be developed if you wish. You can learn to be more punctual if it is important to you that you do so. You can learn to be more organized and to improve your performance in stressful situations. It is important to consider your self-management skills when planning a career or job change. Try to match your career or job to your skills or to those skills that you plan to develop.

On the other hand, if you know that you do not have a certain self-management skill and do not intend to develop it, try not to choose a job that requires the skill.

In some cases, a self-management skill that is a disadvantage in one job may be an asset in a different job.

Distribute the handout "List of Self-management Skills" and suggest that it be reviewed as homework.

B. Functional Skills

Functional skills are those involved in dealing with the basic tangibles of work and can be broken down into three basic areas: data, people, and things. These skills involve doing something to something, acting upon something, doing something with someone. They can be thought of as action verbs such as computing, teaching, operating, etc.
These skills are generally transferrable from one job to another. Once you have learned a functional skill, you take it with you and can apply it in a different setting. If you are good at analyzing data in one job, you will probably be good at analyzing data in another job.

Distribute the handout "List of Functional Skills" and suggest the diagram be quickly examined by the group in class with the actual list filled out as homework.

C. Work-Content Skills

Work-content skills involve knowledge of a specific procedure, language or subject matter. Knowing how to service a carburator on an automobile is a work-content skill, since it involves remembering a certain procedure. Knowing a foreign language is a work-content skill, as is knowing a specific computer programming language such as COBOL or FORTRAN. Work-content skills tend to be specialized and apply to certain jobs. They involve memory of how to do something, what procedures to follow, what relationships exist, etc. You acquire work-content skills as you move from job to job, from one life experience to another, and they all involve the use of your memory.

The following listing illustrates the differences between work-content skills and functional skills.
1) You may be good at reasoning and problem solving (functional skills) but to be able to write a computer program you must know a specific programming language (work-content skill).

2) You may have excellent manual dexterity (functional skill) but to be able to assemble a piece of electronic equipment requires knowledge of the sequence of procedures to be followed (work-content skill).

3) You may have good physical coordination (functional skill) but to be successful in playing a game of soccer you must know the rules (work-content skill).

D. Summary on "skills"

You now have a listing of some of your skills in the three areas. It is not essential that you know all of your skills but it is important that you realize that you do have all three types of skills and that you know major examples of each. Of all these types of skills, functional skills are probably the most important to articulate since they are very transferrable from one experience to another. There is a tendency in describing a job to list the job requirements in work-content terms when actually most of the skills required are functional. Try to analyze any job or new experience
for the actual skills required and avoid going for new training to obtain skills that you already may possess.

In evaluating a job for the skills required, it may be helpful to ask yourself these questions:

1) Self-Management Skills: What types of personal characteristics do I need for this job?

2) Functional Skills: What kind of actions do I need to do this job well?

3) Work-Content Skills: What kind of special knowledge do I need to do this job well?

II. Introduce the concept of "values" using the following:

VALUES (Curtin & Hecklinger, 1981).

A value can be defined as who or what matters most to you. Values can be abstract or specific, as illustrated by the following examples:

experience pleasure religion relationships
education family creativity material goods
money friends security a job
helping honesty health almost anything
achievement social action personal growth

Knowing your values is important because you live by them and work for them. When you make a decision or are in a conflict, your values are involved. Values hold the key to motivation, self-determination, resolution of conflicts and your lifestyle.
If you know your values, you can run your life better. Decisions and results are more satisfying when your decisions are consistent with your values. You feel that you are more in control of your life.

Where do you get your values? You learn them or choose them. You learn from family, schools, religion, friends, etc. Some values remain constant throughout your life and others change. If you accept them you will not challenge and change them. Values and needs are closely related, but they are not the same.

You have the freedom to select your own values after considering alternative values and consequences. As your values change, new decisions and actions will be needed. When you choose a new value, you put it into practice with your behavior.

You will regard certain of your values as more important than others. When you decide what values have priority in your life you can begin to resolve some of your conflicts. When two or more values are held at the same level of importance, you will experience a conflict. The order of priority of your values can and probably will change as you go through life. At times, your values will also conflict with those of other people since each individual has a unique set of values. It is important for you to determine what your major values are and in what order of priority they are.
Closing:

I. Distribute the handout "Values Inventory." If time permits, have the group complete the first page in class. Assign as homework the second page to help them pull it all together.

II. Close the session with a reminder of the next meeting.
List of Self-management Skills

Review the following list of self-management skills.

Ability to choose, or make a decision
Alertness
Assertiveness
Astuteness
Attention to details, awareness, thoroughness, conscientiousness
Authenticity
Calmness
Commitment to grow
Concentration
Cooperation
Courage, risk-taking, adventurlessness
Curiosity
Diplomacy
Easy-goingness
Emotional stability
Empathy
Enthusiasm
Expressiveness
Firmness
Flexibility
Generosity
Good judgment
High energy level, dynamicness

Honesty, integrity
Initiative, drive
Loyalty
Open-mindedness
Optimism
Orderliness
Patience, persistence
Performing well under stress
Playfulness
Poise, self-confidence
Politeness
Punctualness
Reliability, dependability
Resourcefulness
Self-control
Self-reliance
Self-respect
Sense of humor
Sincerity
Spontaneity
Tactfulness
Tidiness
Tolerance
Versatility

Now write in the space below those self-management skills that you now have:

Now list in the space below those self-management skills that you would like to develop or improve:

Handout

List of Functional Skills

The following diagram illustrates the three general categories of functional skills (Fine, 1977). You should note that the more elementary skills are at the bottom and increase in complexity toward the top. Each skill usually involves all those below it. For example, if you want to be involved with people, you can do it at a relatively elementary level (helping, serving) or at a much higher level (mentoring, negotiating).

| Functional Skills
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<tr>
<td>Synthesizing</td>
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Look at the following list of functional skills. Mark an "X" in front of those skills that you now possess. Mark an "O" in front of those skills that you would like to develop (Bolles, 1978).
1) Manipulation
- assembling
- constructing
- building
- operating tools
- operating machines
- operating heavy equipment
- showing manual dexterity
- handling with precision or speed
- fixing or repairing
- muscular coordination

2) Numbers
- taking inventory
- counting
- calculating
- bookkeeping
- managing money
- developing a budget
- memorizing numbers
- rapid manipulation of numbers
- receiving

3) Creativity
- imagining
- inventing
- creating
- designing
- improvising
- adapting
- improving

4) Helpfulness
- helping
- understanding
- supporting
- developing rapport
- motivating
- raising others' self-esteem
- counseling, guiding

5) Intuition
- observing
- inspecting
- diagnosing
- showing attention to detail
- spatial perception
- showing foresight
- sizing up a situation quickly
- having insight
- acting on gut reactions

6) Analysis
- researching
- analyzing
- organizing
- classifying
- problem solving
- diagnosing
- putting things in order
- comparing
- testing
- screening
- reviewing
- evaluating

7) Words
- reading
- copying
- writing
- speaking
- teaching
- training
- editing
- memorizing
- translating
- listening
- caring
- drawing out people
- demonstrating empathy
- sharing appreciation
- healing, curing
8) Leadership

- starting things
- organizing
- leading, directing others
- promoting change
- making decisions
- taking risks
- selling
- promoting
- negotiating
- persuading
- demonstrating
- lecturing

10) Follow-Through

- following directions
- attending to details
- classifying
- recording
- filing
- retrieving

9) Artistic

- composing music
- playing musical instruments, singing
- fashioning, shaping things
- illustrating
- imagining
- dealing creatively
- with color
- acting
- drawing
- painting
- photography
- writing (novels, poetry)
- landscaping
- designing

Values Inventory

The following is a list of 25 life values. Make a check mark next to those that are important to you.

1. Being considered a genuine person
2. Being an honest person
3. A meaningful love relationship
4. Good self-confidence and personal growth
5. Enjoyment of nature and beauty in any form
6. A life with meaning, purpose, fulfillment
7. Continuing to learn and gain knowledge
8. A chance to help the sick and disadvantaged
9. A physical appearance you can be proud of
10. Some honest, close friends
11. A long and healthy life
12. A meaningful relationship
13. A good marriage relationship
14. Satisfaction/success in the career/job of your choice
15. An equal opportunity for all people
16. Freedom to live your life as you want
17. A financially comfortable life
18. Accomplishing something worthwhile
19. A secure and positive family life
20. An enjoyable, leisurely life
21. Unlimited travel, fine foods, entertainment, recreational and cultural opportunities
22. Being known as an innovative person
23. A beautiful home in the setting of your choice
24. A chance to develop creativity/potential in any area
25. Owning a possession of great value

(Handout continued)
Now go back and choose the five values that are most important to you and write them on the lines below:

My five top values are

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

SESSION #4

Recognizing Lifestyle Preferences.

Group 4

Review:

I. Ask about their homework assignment "Values Inventory" and the four questions which were designed to help them process that area.

II. Briefly discuss any concerns with regard to self-management skills, functional skills, and work-content skills.

Opening:

I. This session will give the students an opportunity to examine their preferences for various lifestyles (Curtin & Hecklinger, 1981).

II. The students have covered important areas during the first three sessions that focused on self-information relevant to career planning. This session will afford them a chance to reflect on this information, to synthesize, and to bring some closure to this first phase of self-awareness.

Discussion:

I. Introduce the idea of lifestyle.

II. Distribute the handout "Life Style Preferences."

III. As an in class exercise have each person complete the inventory. Suggest you have class members form pairs
and share with the partner some of the information. The two questions at the end of the handout should help each person process the activity.

IV. If you have sufficient time remaining, you may elect to lead the group in a "guided fantasy" to help each individual project a lifestyle that would be compatible with the person's interests, personal values, skills, and work values.

Closing:

I. Ask for two or three individuals to briefly share with the group some information gained about themselves from either exercise.

II. Homework--distribute the handout "Summary on Self-awareness" which will give each participant a vehicle for pulling together this self-information. After this phase of self-awareness, the stage is set to engage in researching occupational information.

III. Remind the students of the next meeting time.
LIFE STYLE PREFERENCES

What kind of life style do you want to have? Do you really want to live in a rural setting? Do you want to have many cultural activities available to you? Do you want a large family? Do you want to travel often? In considering a career choice or career change, it is important to look at the style of life that you feel would be best for you. If you have certain preferences that are very important to you, then these may very well make a difference in the type of career that you choose. If you wish to live in a rural area then you should choose a career that will allow you to locate there. If you want to travel often, you may wish to choose a career that involves frequent travel.

The following inventory lists a variety of life style considerations (Cooper, J.F., Forrer, S.E., Epperly, J.R., Inge, J., & Trabandt, J.S., 1977). Indicate which ones are of importance to you in the spaces provided.

Instructions: Circle the area on the following scale which most closely represents your feelings.

1. Time spent alone ________ Time spent with people
   \[
   \begin{array}{cccc}
   & 3 & 2 & 1 & 2 & 3 \\
   \end{array}
   \]

2. Interest in political activity
   \[
   \begin{array}{cccc}
   & 3 & 2 & 1 & 2 & 3 \\
   \end{array}
   \]
   Little interest in activity

3. Live in constant climate ________ Live in seasonal climate
   \[
   \begin{array}{cccc}
   & 3 & 2 & 1 & 2 & 3 \\
   \end{array}
   \]

4. Work only for wage ________ Work is #1 priority in your life
   \[
   \begin{array}{cccc}
   & 3 & 2 & 1 & 2 & 3 \\
   \end{array}
   \]

5. Have a short drive to work ________ Have a half-hour or more drive to work
   \[
   \begin{array}{cccc}
   & 3 & 2 & 1 & 2 & 3 \\
   \end{array}
   \]

6. Live in rural area ________ Live in urban area
   \[
   \begin{array}{cccc}
   & 3 & 2 & 1 & 2 & 3 \\
   \end{array}
   \]

7. Have children ________ Have no children
   \[
   \begin{array}{cccc}
   & 3 & 2 & 1 & 2 & 3 \\
   \end{array}
   \]

8. Own living quarters ________ Rent living quarters
   \[
   \begin{array}{cccc}
   & 3 & 2 & 1 & 2 & 3 \\
   \end{array}
   \]

9. Live in house ________ Live in apartment
   \[
   \begin{array}{cccc}
   & 3 & 2 & 1 & 2 & 3 \\
   \end{array}
   \]
10. Live alone ___________ Time spent with people
11. Spend money ___________ Save money
12. Active religious life ___________ Little need for religious activities
13. Frequent travel ___________ Little or no travel
14. Live in cultural centers (e.g., theater, concerts, ballet, art galleries) ___________ Little need for cultural stimulation
15. Have large sums of money ___________ Little need for large sums of money
16. Access to educational facilities (i.e., schools, libraries) ___________ Little need for educational facilities
17. Be a participant in community affairs ___________ Want little involvement with community affairs
18. Access to public entertainment (i.e., movies, restaurants) ___________ Little need for public entertainment
19. Have many possessions, luxuries ___________ Little need for possessions, luxuries
20. Live in close to recreational facilities ___________ Little need for recreational facilities

Now list your most important life style preferences:
In what ways might these lifestyle preferences affect your choice of career or your career change?

Summary on Self-awareness

You have now evaluated your interests, values, skills, and lifestyle preferences. This is the first step in evaluating what type of career plan may be best for you. Additional topics that will be helpful in continuing the career exploration process still lie ahead. In summarizing this section on self-awareness, it may be helpful to return to the questions asked at the beginning. Try to answer them now.

1. What are my interests?

   How do my interests relate to a career I might choose?

2. What are my work values?

   How important are they in choosing a job or career?

3. What are my skills?

   What new skills would I like to develop?
4. What are my personal values?

What effect do they have on my career and on my way of life?

5. What are my lifestyle preferences?

How do they relate to the career I may choose?

SESSION #5
Prospecting For Career Ideas and Examining the World of Work
Group 4

Review:
I. The previous session concluded the self-information phase in career planning. You may ask the group if they feel that they have gained a greater awareness of themselves with regard to important information that affects career choice.

II. Emphasize that career planning is a process.

Opening:
I. An important part of any decision to choose or change your career is to know as much as possible about the career and job market. Now we will look at the relationships between different kinds of work and the careers that may be most suited to your needs and values. This will give you some assistance on how to get information about careers and how to go about making decisions (Curtin & Hecklinger, 1981).

Discussion:
I. Distribute the handout "Prospecting" and encourage the students to generate a list of careers that they have wondered about or that have interested them.

II. Homework: Have the students complete the remaining three sections of the "Prospecting" handout out of class.
III. The World of Work—when looking at the world of work and considering various career possibilities, it can be helpful to break down types of work into separate units or categories. Suggest the following four sections be briefly outlined on the chalkboard:

A. Skills Categories (Fine, 1977)

   Most jobs require skills that can be classified in the following categories:

1. Jobs that deal primarily with data. These jobs involve processing information and would include such occupations as accounting, computer programming, typing, and research.

2. Jobs that deal primarily with people. These jobs involve regular people contact as the primary focus of the job and would include such occupations as teaching, coaching, managing and selling.

3. Jobs that deal primarily with things. These jobs involve doing something with equipment or other tangible things and would include such occupations as farming, truck driving, painting, and repair work.

   Although many jobs require skills in more than one of these categories, they usually have a major focus in just one of the three. In what primary skill category would you want your career to fall: data, people or things?
B. Occupational Categories (Trabandt, J.S., Forrer, S.E., Cooper, J.F., Epperly, J.R., & Inge, J., 1977)

The thousands of careers that exist can be distributed in the following categories:

1. Agriculture and Agri-Business
2. Arts and Humanities
3. Business and Office
4. Communications Media
5. Construction
6. Health
7. Home Economics
8. Hospitality and Recreation
9. Manufacturing
10. Marketing & Distribution
11. Natural Resources and Environment
12. Personal Services
13. Product Services
14. Public Service
15. Transportation

Are there one or two of these categories in which you have a special interest? Does it matter to you in what category you work? If so, list your preferences below:

C. People-Environment Categories (Holland, 1977)

Certain kinds of people tend to go into certain kinds of work. These can be broken down into six categories.
1. **Realistic** These people have athletic or mechanical ability, work with objects, machines, tools, plants, animals, like to repair, work with tools, and may like outside work. Occupations include skilled trades, technical, and some service areas.

2. **Investigative** These people like to observe, learn, investigate, analyze, evaluate, and solve problems. Occupations include scientific and technical areas.

3. **Artistic** These people have artistic, innovating or intuitive abilities and like to work in unstructured situations, using their creativity or imagination. Occupations include literary, artistic, and musical areas.

4. **Social** These people like to work with other people—to inform, enlighten, help train, develop, or cure them. Occupations include educational and social welfare areas.

5. **Enterprising** These people like to work with other people by influencing, persuading, leading or managing for organizational goals or economic gain. Occupations include managerial and sales areas.
6. **Conventional** These people like to work with data, have clerical or numerical ability, and carry out in detail others' instructions. Occupations include clerical and office areas. Which one or two people-environment categories seem best suited to your personality and interests?

D. **Setting**

In what kind of a setting do you want to work? Do you want to work in a large metropolitan area or in a rural setting? Do you want to work indoors or outside? Do you want to work in a large building or in a small shop? Do you want to work in a specific geographical location? In a specific city?

If you have a preference for the type of setting in which you would like to work, write it in the space below:

IV. Distribute the handout "World of Work: Summary" which will serve to aid the students in summarizing the four categories.
V. Homework: Have the students complete the remainder of the "World of Work: Summary" handout at home. You may refer the students to the career inventory The Self Directed Search which was provided to them at an earlier session. This may help clarify some of the categories and aid them in the brainstorming.

Closing:
I. Conclude the session by emphasizing the idea that we are prospecting for career ideas or possibilities. Students at this point are not asked to place a heavy emphasis on evaluation of career ideas.
II. Remind the students of the next session.
I. PROSPECTING

You are probably thinking about certain careers and would like to know more about them. Before looking at these careers, it may be helpful to expand your options. One way to do this is to make a prospect list. Start making a list of careers that you have either wondered about or that have interested you. Include those that you have daydreamed about but have never considered possible. Add freely to this list as you consider possible choices.

**Prospect List**

<table>
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<th>Career 1</th>
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Now expand your list by talking with at least three people who know you well. Ask them for suggestions of careers that they think would be good for you. Add any interesting prospects to your list.

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<th>Career 4</th>
<th>Career 5</th>
<th>Career 6</th>
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You probably now have a list of several good possibilities of careers that may be worth considering. It is also helpful to consider your own work values. In the space below, write down some of the things that are most important to you in your work. For example, do you want to work for a large organization or be self-employed? Do you want to work with many people or work alone? What would you like to do in your ideal work day?

__________________________  ____________________________
__________________________  ____________________________
__________________________  ____________________________
__________________________  ____________________________
__________________________  ____________________________
__________________________  ____________________________
__________________________  ____________________________

Compare this list with the prospect list of possible careers. What careers would give you what you want in a job? Which ones would fulfill most of your work values? Put a check mark next to those careers that you would like to investigate further.

World of Work: Summary

Skill category: data-people-things

Occupational categories:
- Agriculture/agri-business
- Arts and humanities
- Business and office
- Communications media
- Construction
- Health
- Home economics
- Hospitality and recreation
- Manufacturing
- Marketing/distribution
- Natural resources/environment
- Personal services
- Product services
- Public service
- Transportation

People-environment categories:
- realistic-investigative-artistic-
  social-enterprising-conventional

Setting:

Now look back at the categories that you have considered and summarize your choices below:

A. Skill category selected ____________________________________

B. Occupational categories selected __________________________

C. People-environment categories selected_____________________

D. Setting selected __________________________________________

Write in the space below some careers that would include all of the categories you have selected. Ask your friends or family members to help you. Brainstorm—use your imagination.

SESSION #6

Group 4

How To Investigate a Career

Review:

I. The previous session was aimed at prospecting for career ideas. Ask the students how the prospecting went for them? Also, the students examined the world of work from the perspective of skills, occupational categories, people-environment types, and work setting. Review the last handout "World of Work: Summary" and answer any questions.

Opening:

I. How to investigate a career will provide the students with an understanding of strategies to employ in gathering relevant information about a particular career, occupation, job, and/or position.

Discussion:

I. **HOW TO INVESTIGATE A CAREER** (Curtin & Hecklinger, 1981)

   You have, up to now, looked at some general factors about the world of work and also at some careers that may be appropriate to your interests and values. At this point it is important to look at how to go about finding as much information as you can on a career. There are several ways to go about this, some better than others. They are described as follows: experience,
informational interviewing, and printed material. Let us talk about the first two ways.

A. Experience

Perhaps the best way to find out what a career is like is to experience it. Working in an area can give you a good idea about whether or not a particular career is for you. Although this is not always possible, there are several things you can do to obtain this experience:

1. Get a part-time or full-time job in the area. You may be able to start at a low level but still get a good deal of exposure to what the career would involve. You can find out what the people you would be working with are like and can learn much from talking to them. You can find out about the daily routine and about the advantages and disadvantages of the job.

2. Do volunteer work. Many organizations, particularly public service and health areas, have opportunities for volunteers. By volunteering you learn much the same kind of things that you would learn were you actually employed. It would also give you the opportunity to ask questions and to get to know as much about the career as possible.
3. If you are enrolled in a college, explore the possibility of cooperative education. This valuable experience provides an opportunity to receive on the job training, college credit, pay, and job experience and future contacts.

B. Informational Interviewing

Informational interviewing is a simple but effective method of:

Goal #1—Narrowing your career prospects.

Goal #2—Developing a list of effective contacts which may eventually lead to a job opening.

The "how to" of informational interviewing may seem difficult and even threatening to some people but the results are well worth the risks! The method is simple. You interview people who are doing the same job you are interested in doing. For example, if you have "retail manager" on your prospect list and you choose to investigate this field further, then select a retail store that interests you and interview the manager. Don't talk with a personnel administrator or a marketing teacher—go right to the source for direct and specific information. Now, your first reaction might be—"But what do I ask? These professional people are busy. I'll feel silly." These
immediate fears are legitimate but balance the goals of informational interviewing with these and you may feel differently. Stress the difference between "job interviewing" and "informational interviewing." Develop questions you want to ask in the informational interview.

How to Get an Informational Interview

There are three methods you could choose to interview for information:

1) **Blind method**—Call a prospective interviewee whom you do not know and make an appointment for an informational interview.

2) **Walk-in method**—You "drop in" on a prospective interviewee whom you have located in the Yellow Pages of the phone book. Depending on the type of career research this may or may not be an effective method of informational interviewing. For example, if you are researching the auto mechanics field, you probably would be welcome on a drop-in basis. On the other hand, most business people prefer appointments, so use your own judgement.

3) **Referral method**—This is by far the most successful and rewarding method. You call someone you know or has been referred to you by a friend and ask the potential interviewee for an information interview.

Eighty percent of our population get jobs through people
they already know or through referral by a friend, relative, neighbor, acquaintance, etc.

Informational Interview Worksheet

PREPARE! You will want to give some thought to the kind of questions you want to ask and points you want to discuss so that you leave the interview with the information YOU are seeking. Take some time to write out areas of interest and questions you wish to pursue. You need not take the written list with you (although this is perfectly acceptable and may be beneficial), but writing them out in advance will help you organize your thoughts, be more confident and get the most out of your interview. You will also want to take some time to evaluate what you have learned.

II. Distribute the Handout--Informational Interview Worksheet. Overview the questions that could be asked in an interview.

III. Homework--Have each student accomplish one informational interview before the next session.

Closing:

I. Summarize the importance of gathering career information.

II. Remind the students of the next meeting time.
Handout

Informational Interview Worksheet

What information would assist you in your career decision?

What people might help you discover this information?

What things might assist you in your research?

P.S. Thank you letters written after an interview are greatly appreciated and may single you out for a job.

Possible Questions:

--What is the nature of the work?
--What do you do in an average day?
--What is the range of your duties and responsibilities?
--What are the current issues (problems, needs, plans, etc.) of your organization or field?
--Are the skills of the job performed with people, data or things?
--What tools and equipment are used?
--What are the physical and psychological demands?
--Where is the work performed?
--What type of organizations employ people in this occupation?
--What are the working conditions?
--How does your work fit into the organization as a whole?
--With whom do you work closely?
--How did you get into this field and present position?
--Is the work done inside or outside?
--What are the eligibility requirements for entry into the occupation?
--What kind of education is required?
--What kind of specialized training is required?
--What is the employment outlook both locally and nationally?
--What are the projections about employment opportunities in geographic areas which you prefer?
--Are job opportunities in this field increasing, decreasing, or remaining stable?
--What opportunities are there for career mobility?
--Does this occupation offer you the opportunity to acquire skills and responsibilities that would allow you to advance in that organization?
--Could you use those skills acquired in another organization or another job?
--What is the probable and potential earning power?
--What is the pay range and benefits (i.e., insurance, vacations, fringe benefits)?
--How rapidly do pay and benefits increase?
--Is there a maximum possible income?
--What are the advantages and disadvantages?
--What gives you the most enjoyment?
—If you could change the job in some way, how would you change it?
—What compromises do you find most difficult to make in this job?
—What advice would you give a person considering this occupation?
—Where can I get further information? (Get several names if possible).

Name: ___________________________ Title: _________________________
Organization: ____________________________________________________
Address: ________________________________________________________
Phone: __________________________________________________________
Evaluating Your Interview

What positive impressions do you now have about this career? (Think in terms of yourself: interests, skills, values, goals).

What negative impressions do you now have about this area of work? (Again, evaluate in terms of yourself: your interests, skills, values and goals).

How did this interview help you to clarify your own career objective? If it did not, why not?

Session #7

Examining Occupational Information

Group 4

Review:

I. The last session focused on how to investigate a career. Ask the students to share their experiences at informational interviewing. Students will need to review their Informational Interview Worksheets. Discuss difficulties or problems encountered and positive outcomes from the process. Emphasize that each person will probably conduct several informational interviews. This was a first attempt and hopefully acquainted them with the process. Spend some time discussing the evaluation questions on page 8 of the worksheet.

II. Point out that experience and informational interviewing are two important ways of gaining career information. However, students will also need to engage in the third method—examining printed material.

Opening:

I. Examining printed material is probably the easiest way for someone to gain valuable information on careers.

II. Stress the importance of spending sufficient time and effort at this stage of the process.

III. Most students need to go about this in an organized and deliberate manner. Suggest the use of a notebook to aid in recording some of the relevant information that is discovered in the process.
Discussion:
I. Printed Material (Curtin & Hecklinger, 1981)

A large amount of printed material is available covering career choice, the job market, and information on specific careers. This material can be found in college and public libraries and much of it is available in paperback format at local bookstores. When using printed material, it is important to ask yourself the following questions:

1. Is the information accurate? Check more than one source.

2. Is the information current? What is the publication date? If it is several years old, check another more recent source.

3. Is the information comprehensive? Does it give enough detail about the career? Where can you obtain additional information?

4. Is the information given in an unbiased way? Are there any age, sex, or minority biases in the printed material?

Regardless of the quality or quantity of the printed materials available to you, it is important to keep the following points in mind as you read information on various careers:
1. The source of information may be somewhat biased. Information provided by industries about their own particular field tend to paint a somewhat "rosy" picture of the careers and opportunities in them.

2. There is always a time lapse factor when considering job forecasts. Even the most up-to-date material is somewhat dated when it is published. Supplement information in books with that found in newspapers and magazines.

3. The relationship between supply and demand may be unclear. If there is currently a shortage, how many people are preparing for the field? Is it a field where there are limited opportunities? What are the actual number of positions projected to become available in the foreseeable future?

4. Forecasts do not allow for different job-hunting approaches. There will always be some jobs available in every field. Forecasts simply give you an indication of how hard you will have to work at finding a job in your chosen field.

II. Point out some of the publications listed below that provide specific facts about major career fields including job trends and employment projections.

SELECTED RESOURCES FOR JOB MARKET INVESTIGATION (Curtin & Hecklinger, 1981)

A. Handbooks and Job Facts
1. **The Occupational Outlook Handbook, 1982-83.**
This book, put out by the Department of Labor, will give you a thumbnail sketch of thousands of different occupations, including nature of the work, places of employment, qualifications needed, earnings and working conditions, and even employment outlook in the future. A must for every career hunter!

2. **Dictionary of Occupational Titles.**
By the use of a nine digit code, the DOT classifies virtually all jobs in the United States. This has been done to compare and match the specifications of employer job openings and the qualifications of applicants who are seeking those jobs. An explanation of the code can be found in the introduction. Practically every resource on career research refers to this DOT number.

Volume I includes 71 articles describing every major career field; Volume II gives specific facts about 650 occupations based upon DOT occupational group arrangement.
There are more than 300 apprenticeable trades in the United States. This book is for those who wish to move from wherever they are now—into an apprenticeship program.

A book which assesses your personal interests and skills and how they relate to various occupations.

6. **Guide for Occupational Exploration.**
Emphasis on how your interests and abilities relate to occupations. Tells you what knowledge and skills the worker must have and the training required to be successful.

7. **Occupational Projections and Training Data.**

8. **What Can I Do With a Major In...?**
An extensive listing "by major" of 1) positions you qualify for 2) institutions and organizations that hire you, and 3) jobs currently held by graduates in that major.

Brief and concise answers to essential questions we all ask about jobs.

B. The career resources listed below will lead you to organizations that offer employment opportunities, training programs and internships and the qualifications necessary for selection.

Divided into four volumes: Liberal Arts and Social Sciences, Business Administration, Engineering and Computer Sciences, Sciences. Gives the name and a brief description of the organization offering the employment opportunity, a detailed description of the career opportunities available, any special training programs available, location, benefits, and person to contact.

Lists the principal employers who recruit college graduates. Includes name and address of the organization, name of the parent firm and/or subsidiary, name and title of the recruitment representative, the region in which the organization recruits, and the occupational openings for which the organization will recruit.


This book will lead you to the addresses of those organizations and agencies which provide free or inexpensive materials on the career you are researching.


A great directory for finding the association that deals with information on your career interest area. Associations can be great places to contact for more career information, local contacts working in that field, etc.

For those students who want to stop-out of college temporarily. Programs listed are open to all students, do not require a college degree, do not charge tuition or fees and is more than just a summer program. Describes internships and volunteer programs which are work oriented.

III. Distribute the CRAC flyer to introduce the students to the TNCC Office of Career Planning and Placement as well as the Career Resource and Assessment Center (CRAC). This handout will highlight some of the available resources that the students will need to utilize. At the end of the session the students will be given a brief tour of these areas.

Closing:

I. Summarize the major points of the session. Stress the importance of doing a thorough investigation.

II. Remind them of the next meeting time.

III. Conclude the session with a brief tour of CRAC.
The Career Resource and Assessment Center is a source of career related information for the use of students, faculty, staff, parents and the general public. The information in the Center is current, accurate, easily read and abundant. Please take time to come by and look at the resources available. Here is a summary of what we offer.

1. **DICTIONARY OF OCCUPATIONAL TITLES**: definitions of thousands of occupations, tasks performed and related jobs.
2. **OCCUPATIONAL OUTLOOK HANDBOOK**: information on typical duties, working conditions, places of employment, training, qualifications and advancement, and employment outlook.
3. **CAREER INFORMATION CENTER SET**: 12 volumes—each corresponding to a broad range of occupations.
4. **VOCATIONAL BIOGRAPHY CAREER LIBRARY**: volumes of career biographies offering insight into a wide range of occupations from the viewpoint of individuals working in the fields.
5. **CAREER EMPLOYMENT OPPORTUNITIES DIRECTORY**: a guide to career opportunities offered by many government agencies, businesses and professional organizations nationwide.
6. **COLLEGE CATALOGS AND EDUCATIONAL MANUALS AND GUIDES**: information on colleges throughout the U.S. including programs of study, costs, entrance requirements, etc.
7. **EMPLOYER FILES**: recent information on numerous local, some national and international employers, jobs they utilize, their growth and economic status, employee benefits.
8. **COIN (COORDINATED OCCUPATIONAL INFORMATION NETWORK)**: microfilm network of occupational, military, apprenticeship, college majors and college information.
9. **VIRGINIA VIEW-DECK**: an occupational, education and training information system designed to help in finding career options based on your temperament, interests, etc.; also to assist in choosing an education or training program.
10. **TNCC PLACEMENT REPORTS**: data collected for the last 10 years showing where our graduates are employed and approximately what they are earning.
11. **APPLE PLUS II MICROCOMPUTER**: to be used in conjunction with the Virginia VIEW career self-assessment and occupational/education information system.
12. MISCELLANEOUS: books and magazines, directories and guides, career resource materials, military information, audio-visual career exploration tools, the "FREEBIE" rack, ... AND the CRAC-Pot, our quarterly newsletter published just for YOU!

AND MUCH MORE!

THOMAS NELSON COMMUNITY COLLEGE
HAMPTON, VIRGINIA

The hours of the Career Resource and Assessment Center are MONDAY to FRIDAY, 10:00 a.m.-2:00 p.m. OR AS POSTED

Other arrangements may be made for those who may have circumstances preventing them from coming during normal hours. Call 825-2856 or stop by and talk to the Career Specialist to make necessary arrangements.
SESSION #8

What To Look For When Investigating a Career.

Group 4

Review:

I. From the last session the students were introduced to some of the different sources of occupational information. Emphasize again the necessity of investigating several sources.

Opening:

I. It was suggested in the last session to investigate career information in an organized and deliberate manner.

II. This session will focus on what to look for when investigating a career (Curtin & Hecklinger, 1981). Students will be guided to seek answers to general questions about the career, employment projections, training requirements, salary and benefits, non-monetary rewards and other factors.

Discussion:

I. You have an idea of what careers you wish to investigate and how to go about finding information. What is it you want to find out? What are some of the things you should look for when you are talking with people and reading about a career? Overview the following key areas.

What is the nature of the work? What functions are performed by the workers involved in this occupation? Are those functions performed with people, data or things? What is a typical day in the life of a person in this occupation like? Do the daily activities of this occupation interest me?

Where is this work performed? What types of organizations employ people in this occupation—schools, hospitals, governmental agencies, private business, etc.?

With what type of people will you be working? What type of people often go into this occupation and will, therefore, be your co-workers? What type of supervisor or boss might you have?

What are the eligibility requirements? What kinds of skills, education and/or specialized training are required for entry into this occupation?

What is the employment outlook? Are job opportunities in this field increasing, decreasing or are they remaining stable? What are the projections about employment opportunities in geographic areas which you prefer?

What opportunities are there for career mobility? Does this occupation offer you the opportunity to acquire skills and responsibilities,
allowing you to advance to a higher level position in the same organization? Or could you use those acquired skills in a different organization or in a job with a different content?

**What is the probable and potential earning power?** What pay range and benefits (i.e., insurance, vacations, fringe benefits, etc.) can you expect upon entering a particular occupation? How rapidly, and to what extent, do pay and benefits increase in a particular occupation?

**B. Employment Projections**

Evaluate how many jobs will be available in the career you are investigating and where these jobs will be. Ask yourself the following questions:

1. **How many actual jobs will be available?** If information you read indicates a 30% growth rate in an occupation over the next five years, what is the starting point? If there are 20,000 total jobs in the field, a 30% growth rate would mean that 6,000 jobs would be created. If there are 100,000 jobs in a field, the same 30% growth rate would create 30,000 jobs. The second would be a better choice, since five times as many jobs would be available.
2. Will the career be affected by fluctuations in the economy? Some occupations such as construction and travel may be much more dependent on a good economy than others such as computer programming, health, and accounting.

3. How many people are preparing for an occupation at the present time? If a certain occupation is growing modestly but is also very "in" with many people entering the field, the number of job seekers will soon outstrip the demand.

4. Do you wish to work in a specific geographical area? If your choice is limited by the area in which you plan to live, good employment projections in some fields may not be of value to you if you are not mobile.

5. For some projections for careers in the 1980s, read the information found in the Career Resource Assessment Center.

C. Training Requirements

Consider the amount and type of training required for entry into a career. Ask yourself the following questions:

1. Is a college degree required for entry, even at a basic level? In some occupations, there are so many people who want to become employed that
the entry level requirements are driven up to a high level. For example, someone who wishes to become a social worker may need a master's degree simply to compete for jobs with others who have master's degrees.

2. Is certification required? People who wish to enter many of the health professions must meet state certification requirements and may have to take qualifying exams.

3. How important is experience in obtaining a job in a given field? The job market for some careers dictates the need for hands-on experience as well as education. Part-time work, cooperative education, or volunteer work can be useful in such situations.

4. Are there alternative ways to get training for an occupation? If so, is one better than the others? For certain occupations, you may have a choice between a public college, a private college, or a proprietary specialty school. It is important to evaluate the costs, the type of training provided, and the merits of each as preparation for the job market.

5. How long will the training take? Some careers require a long time commitment for entry. Others can be entered in a relatively short period
of time with minimal training. What type of commitment can you realistically make to become trained for a certain career?

6. Can a career be entered with the skills you already have? Is additional training really necessary? If you have worked before, you have a variety of transferrable skills. Does the new career you are considering really require new skills or can you use the same skills you used in your past work, with simply a different focus?

7. Are there union or on-the-job training programs? Some unions run apprenticeship programs and some companies have extensive training programs that they provide for their employees.

8. If a college degree is required, must it be in a specific field? Some potential employers may require a degree which indicates that specific training has been a part of the academic program. Other employers may want a more general degree indicative of a more diversified approach to education.

D. Salary and Benefits

Your informational interviewing and reading should provide you with some information on the general range of salary you can expect in a given career. You should consider the following questions.
1. How important are salary and benefits to you? If high salary and good benefits are primary values for you, then this should be a significant factor in choosing a career.

2. What is the salary range? Some careers require a low level entry point but offer good potential for raises and bonuses. Other careers have relatively fixed maximum salaries and limited chances for advancement.

3. What is the method of payment? Some of the alternatives are as follows:
   a. annual salary
   b. hourly wage
   c. commission
   d. wages plus commission
   e. wages plus tips

4. What are the benefits that are available? Some jobs provide a large number of benefits, others very few. Some of these benefits are as follows:
   a. health insurance
   b. life insurance
   c. retirement
   d. sick leave
   e. paid vacation and holidays
   j. disability insurance
   k. credit union
   l. company car
   m. free parking
   n. clothing and equipment
f. expense account  o. tuition assistance

g. profit sharing  p. discount privileges

h. bonus  q. medical facilities

i. employment  r. recreational
compensation  facilities

E. Non-Monetary Rewards and Other Factors

In addition to salary and benefits, there are other less tangible rewards that may or may not be important to you. You should consider the following questions.

1. What is the work environment? Do people seem to get along well together? What style of supervision is provided? Is it appropriate for you?

2. Do you want to work with other people around or by yourself? Do you need an environment free from distractions or do you like it rather hectic?

3. Are there opportunities for positive feedback? Do people complement one another or is there a highly competitive spirit?

4. Can you be independent or must you do someone else's bidding most of the time? To what extent is the work you do dependent on someone else's work?

5. What kind of hours are required? Do people work long hours with no overtime pay? What kind of flexibility of time would you have? Are you
fixed into a certain schedule or do you have more control over the hours you work?

6. How will the job affect your family responsibilities? Will it take a considerable amount of time from your family? Is this acceptable to you?

7. What kind of variety exists? Will you be doing the same thing every day? What opportunity is there for personal and professional growth?

8. Are you philosophically in tune with the job and with the organization? Do you believe in what you would be doing? Is the job consistent with your values?

9. Can you transfer your work from one geographic location to another? Once you have settled in a job are you tied to that area or are you mobile?

10. Are there visible end products so that you can see what you have accomplished or are the results of the work more vague? What kind of payoff do you need?

11. Some other factors you may want to consider are as follows:

   a. Travel requirements
   b. Challenge
   c. Risk
   d. Prestige
   e. Physical setting
Closing:

I. Distribute the Handout—Worksheet for Investigating a Career.

II. Homework: ask the students to use this worksheet to examine one printed source on a career of interest to them.

III. Remind them of the next meeting time.
Worksheet for Investigating a Career

1. What would I do? How would I spend a typical day at work?

2. Training requirements—how long will it take to get ready to enter the field?

3. Projections—how does the future job market look?

4. Salary and benefits—what can be expected?

5. What are the non-monetary rewards?

6. Is there career mobility?

7. With what type of people would I be working?

SESSION #9

Self-information, Career Information, and Decision-making

Group 4

Review:

I. Ask the students if there were any questions generated as a result of the Worksheet for Investigating a Career.

II. Review with the students that this group has been designed to help them through the process of considering self-information, career information, and the actual process of making a decision. This session will focus on this latter point—decision-making.

Opening:

I. You have been identifying important information about yourself as relates to career planning. Also, you have looked at career information and learned how to investigate careers. Now you need to pull this information together and at least arrive at some tentative decisions.

Discussion:

I. DECISION-MAKING

As you investigate possible careers and the job market, you will obtain information that can be very helpful to you in making effective decisions. There are other factors that you should also consider when the time comes to make a decision. By carefully
evaluating these factors, your decision has the potential of becoming more rewarding to you and more consistent with your own values and needs (Curtin & Hecklinger, 1981).

A. Identify the decision to be made.

If you are considering a change of careers, do you really want to change? Even if, after evaluating your options, you decide to stay with your present career, you have made a decision and will be able to accept your situation better than if you simply put off making a decision.

If you are choosing a career, what are the factors involved? What do you want to accomplish and what do you have to know in order to make your decision?

B. What kind of obstacles are you facing?

An obstacle to decision making is anything or anyone that prevents you from considering all your alternatives. You are probably facing two types of obstacles as you work on making a decision. They are external and internal obstacles.

1. External obstacles are those which are imposed by others or by situations. Examples are family responsibilities, societal stereotyping, time, geography, and money. These are specific barriers over which you may or may not have some
control. For example, an obstacle to a career change would be money. If you want to quit your job and return to school to train for a new career, your loss of income may not allow you to maintain your family responsibilities. In many cases you do have considerable influence on external obstacles if you creatively look at ways to get by them.

C. When making a decision, always have an alternative.

If you are considering a certain career, don't simply start preparing for it without looking at alternatives. Pick a career possibility that looks almost as appealing to you as the one you are considering. Then compare the two. List the relative advantages and disadvantages of each. Ask yourself the questions in this booklet and apply the answers to each. You may still decide on your original choice, or you may find out that there are some distinct advantages to your alternative. In any case, you will have made your decision in a more thoughtful way and will have a better chance of being satisfied with it.

D. When making a decision, follow a logical procedure.

In order to make an adequate decision we need to develop a procedure to aid us in evaluating the issues at hand.
1. **The decision**—Identify the decision you wish to make.

2. **Collect information**—Gather important information related to this decision. Clarify any misconceptions you have about your options.

3. **Options**—Check to be sure you are being realistic in your decision making. Recognize any obstacles and plan your strategies.

4. **Weigh the evidence**—Take a close look at all the aspects of your options. Check the pros and cons; test the reactions of the significant people in your life.

5. **Select an option**—At this level examine the risks and your degree of commitment to accept responsibility for your decision.

6. **Plan of attack**—Develop a time table to achieve your goal in a manner that is most likely to be successful. How will you implement your decision?

7. **Review**—Reevaluate periodically to see if any adjustments are necessary. If needed, adjust your decision.

**Closing:**

I. Distribute the handout—Worksheet for Making a Decision.

II. Homework—have the students use this sheet to help them focus on making a career decision. This has been a group process targeted on helping them better
understand career planning as a process. Hopefully, they have gained a better perspective on how to go about making a career decision and are at the point of being ready to do some risk-taking in arriving at some tentative decisions and considering strategies on how to implement such decisions. Point out resources for continued assistance.

III. Remind the students of the final session.
Worksheet for Making a Decision

1. What is the decision to be made?

2. What are the obstacles to be faced?

3. What are the alternatives?

4. What are the advantages and disadvantages of each alternative?

5. Which alternative seems best?

6. How do you follow through to achieve the alternative you selected?

FINAL SESSION

Final Wrap-up, Group Evaluation, and Posttest Assessment.

Groups 1, 2, 3, and 4

Review:
I. Since this is the last session for the group, you will want to provide an opportunity for students to ask any remaining questions.

Opening:
I. Acknowledge to the students your appreciation for their participation in the student development group. You may provide them with feedback on how you have perceived the group and your role as a group facilitator.

II. Inform them that their orientation instructor will be contacted by the researcher to confirm their completion of this group as a part of the General 100 course.

Discussion:
I. Distribute and collect the End-of-Group Evaluation form.

II. Administer the Survey of Study Habits and Attitudes and the Nowicki-Strickland Scale. Briefly review the directions with the students. Remind them to mark their answers on the answer sheets using a pencil. Do not mark in the booklet.

Closing:
I. State that since this is part of a research project the researcher will insure confidentiality of all data collected. The results of the research project will be
made available to any interested participant by contacting the researcher after the Spring Quarter 1984. Thank them for their participation.

II. Good-byes.
End-of-Group Evaluation

Group 4

Directions: Please take a few minutes to evaluate this student development group in career development. Be open and honest in your evaluation. Thank you for your interest and participation in the program.

PLEASE DO NOT PLACE YOUR NAME ON THIS EVALUATION FORM

1. Indicate to what degree you found the following content areas to have practical value for you as a student.

NOTE: Circle a number for each item as follows:

<table>
<thead>
<tr>
<th>Very Valuable</th>
<th>Valuable</th>
<th>Average Valuable</th>
<th>Limited Valuable</th>
<th>No Valuable</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Self-Information</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>b. Career Information</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>c. Career Decision-making</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

2. Did you find the number of sessions to be?

   ___ too many
   ___ reasonable
   ___ not enough

3. Did you find the length of each session to be?

   ___ too long
   ___ sufficient
   ___ too short

4. Did you find the instructional approach (lecture-discussion-homework) to be effective?

   ___ Yes
   ___ No

Suggestions (if any): ____________________________

______________________________
5. How would you evaluate the amount of homework?
   ____ too much
   ____ reasonable
   ____ not enough

6. How would you evaluate the usefulness of homework?
   ____ very useful
   ____ somewhat useful
   ____ not useful

7. Did you find the non-graded approach to be effective that was used by the instructor/group facilitator?
   ____ Yes
   ____ No
   Comments (if any): ____________________________

8. Would you say that the instructor/group facilitator presented the instructional material in an effective manner?
   ____ strongly agree
   ____ agree
   ____ undecided
   ____ disagree
   ____ strongly disagree

9. Would you say that the instructor/group facilitator showed genuine concern for the group participants?
   ____ strongly agree
   ____ agree
   ____ undecided
   ____ disagree
   ____ strongly disagree

10. Would you say that your participation in this group has helped you to acquire more effective information about yourself for use in career planning?
    ____ strongly agree
    ____ agree
    ____ undecided
    ____ disagree
    ____ strongly disagree
11. Would you say that your participation in this group has helped you to acquire more effective information about the world of work?

___ strongly agree
___ agree
___ undecided
___ disagree
___ strongly disagree

12. Do you think that your participation in this group has helped you to improve your academic performance for this quarter?

___ Yes
___ No

Comments (if any): ________________________________________________

13. Do you feel that your participation in this group has helped you to persist in your role as a student in college?

___ Yes
___ No

Comments (if any): ________________________________________________

14. Would you recommend that this type of student development group continue to be offered?

___ Yes, but it should be a mandatory requirement for all students in General 100.

___ Yes, it should be offered on an optional or voluntary basis with a point value in General 100.

___ Yes, it should be offered on an optional or voluntary basis without a point value in General 100.

___ No (specify reason): ______________________________________________

___ Other (please specify): ____________________________________________


15. Would you recommend that the Counseling Center offer some of the following types of student development groups? (Check those you consider important).

___achievement motivation   ___sexuality
___assertiveness training   ___stress management
___career decision-making   ___study skills
___communication skills     ___test anxiety
___job-hunting skills       ___other (specify)_______
___moral issues             ________________________
___personal growth          ________________________
___relationship skills      ________________________

16. In your own words please state your overall evaluation of this student development program. Feel free to honestly state your comments and/or suggestions. Thank you for your input.
References


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1972-1984 The College of William and Mary
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Abstract

AN INVESTIGATION OF THE MOTIVATIONAL--STUDY SKILLS--SELF-REGULATORY SKILLS MODEL FOR IMPROVING ACADEMIC COMPETENCE IN COMMUNITY COLLEGE STUDENTS

O. Rex Evans, Ed.D.

The College of William and Mary in Virginia, September 1984

Chairman: Dr. Fred L. Adair

The purpose of this study was to investigate the effectiveness of a multicomponent model for developing effective study skills in community college students. The motivational--study skills--self-regulatory skills model was presented through a proactive student development program offered as an expanded orientation course that targeted on study skills development.

A review of the literature in study skills reveals that there appears to be a lack of consensus with regard to identifying common characteristics of successful treatment programs. Also, there is a serious lack of research involving community college students who as nontraditional students would seem to benefit from efforts designed to enhance study skills and improve academic performance.

The subject population consisted of 390 students enrolled in a freshman orientation course during the Winter Quarter 1984 at Thomas Nelson Community College in Hampton, Virginia. The sample for the study consisted of 93 Ss who volunteered to participate in one of five student development groups in either study skills or career development. A nonequivalent control group design was used which involved: a six-week treatment group in study skills, an eight-week treatment group in study skills plus self-regulatory skills, a ten-week treatment group in study skills plus self-regulatory skills plus motivational instruction, a ten-week placebo control group in career development, and a waiting-list control group. All Ss completed a brief demographic questionnaire and were pretested-posttested using the Survey of Study Habits and Attitudes and the Adult Nowicki-Strickland Internal-External Control Scale. Participants in the study skills and career development groups were requested to complete an end-of-group evaluation form. Academic performance as measured by quarterly grade point average and credit-hour persistence rate was examined at the end of the Winter Quarter 1984 and after the Spring Quarter 1984 as a one-quarter follow-up.
The results of the investigation revealed the following:

1. The hypothesis that there was no difference in academic performance among students receiving different study skills components and students in control groups was accepted.

2. The hypothesis that there was no difference in study habits among students receiving different study skills components and students in control groups was rejected at the .01 level of significance. Post hoc comparisons of change scores from pretest to posttest revealed that although the three treatment groups differed significantly from the two control groups at the .05 level, the three treatment groups were not significantly different from one another.

3. The hypothesis that there was no difference in study attitudes among students receiving different study skills components and students in control groups was accepted.

4. The hypothesis that there was no difference in locus of control among students receiving different study skills components and students in control groups was accepted.

5. The hypothesis that there was no difference in academic performance after one academic quarter among students who received different study skills components and students who were in control groups was accepted.

Demographic data collected on the sample indicated that the Ss were representative of the general student population at the college. A comparison of pretest and posttest differences on the SSHA and the ANS-IE produced evidence that some significant treatment effects did occur within the three treatment groups and none within the control groups. Overall the group participants perceived their student development group in study skills or career development to be valuable and recommended continuation of the program as a part of freshman orientation.