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THE RELATIVE EFFECTIVENESS OF RATIONAL STAGE DIRECTED IMAGERY, COGNITIVE RESTRUCTURING, RELAXATION TRAINING, AND STUDY SKILLS COUNSELING WITH UNIVERSITY LOW ACHIEVERS

The Ohio State University

Ph.D. 1980

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THE RELATIVE EFFECTIVENESS OF RATIONAL STAGE DIRECTED IMAGERY, COGNITIVE RESTRUCTURING, RELAXATION TRAINING, AND STUDY SKILLS COUNSELING WITH UNIVERSITY LOW ACHIEVERS

Dissertation
Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By
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To all the people who supported me along the way
ACKNOWLEDGMENTS

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CHAPTER I
INTRODUCTION

National figures indicate that of the 7.6 million undergraduate students enrolled in the U.S. in 1971, roughly 2.3 million students dropped out of higher education completely (Pantages & Creedon, 1978). Internationally, Mitchell, Hall, and Piatkowska (1975) report that in the faculties of Arts and Sciences at the University of New South Wales, the largest university in Australia, 40 percent of all full-time students fail at least two out of four end-of-year course examinations.

Many thousands more, although they remain part of the university, suffer the fear and anxiety that so often accompanies a chronically low GPA. They move forward, toward graduation, but pay an emotional price which removes much of the joy, excitement, and, certainly, most of the real learning that is designed to be an integral part of the university experience.

During the winter quarter of 1977, 3,600 undergraduate students at The Ohio State University experienced academic difficulty (Halverson, 1977). Twelve percent of the freshman and sophomore classes on the man and regional campuses had an accumulative grade point average (GPA) of below 2.00. This situation is, of course, not new to The Ohio State University.
As late as 1967 the problem at The Ohio State University accounted for 37 percent of the freshman class; i.e., dismissals due to low academic achievement (Schreffler, 1976). The problem became severe enough for the university to revise its criteria for probation and dismissal and create a new academic advisement system for freshmen. This has resulted in the attrition rate dropping to about 5 percent annually (Thompson & Mahr, 1971). In spite of these efforts, Schreffler (1976) points out that one out of every 13 freshmen goes on academic probation. He examined 285 new first quarter freshmen (NFQF) during the autumn quarter of 1974 and found that 37 percent were dismissed within two quarters and 41 percent dropped out, leaving 21 percent still in college at the end of the first year. Ninety-seven and five-tenths percent of the NFQF who went on academic probation were dismissed, dropped out, or remained in poor academic health after the first three quarters.

These students, along with the unfortunate situation in which they find themselves, are often discussed in administrative committee meetings, and are referred to as underachievers and/or low achievers. There is often a distinction made between the two which has been researched and argued about for a good number of years. The basic distinction seems to resolve around whether or not academic performance is compared to academic potential. Where a significant discrepancy exists between actual and predicted
performance, the term underachiever is applied. Where performance is low in comparison to some standard measure of academic performance regardless of measured potential, the term low achievers receives preference (Kornich, 1965; Schwitzgebel, 1965).

Some authors point the finger at the imperfections inherent in predicting academic performance: "Underachievement and overachievement are concepts which demonstrate the inability to predict performance accurately due to the influence of factors other than general ability or past record" (Carlson & Fullmer, 1959). Regardless of which label is chosen, these students are not meeting university requirements and are cutting themselves out of a higher education at a time when academic requirements for entry-level career positions are on the rise.

That the problem is a long-standing one is well documented. Bednar and Weinberg (1970) did a comprehensive review of the literature and found studies dating back to the late 1920s. While the number of research studies seem to have peaked during the 1960s, Mitchell and Piatkowska (1974a) state that there has been an increased tendency for schools, colleges, and universities to offer programs of treatment for underachieving students. Research currently seems to have dropped off somewhat, yet the problem continues. An appreciation for the number of students having
a significant degree of difficulty leads to an intuitive feel for how devastating this last potential can be for both society and the individual.

Dr. Robert Pitcher, in his well-researched book Why College Students Fail, draws an ominous comparison between the "brain drain" that occurred in Europe following World War II when thousands of educated, talented, and intelligent people came to the United States, attracted by greater political and religious freedom, by economic opportunities, and by colleges and universities that were willing to give them security and status, and the unloading of tens of thousands of students so early in their educational process. He sees us creating our own "brain drain" and wonders if we are not robbing ourselves of our greatest natural resource by this wholesale dumping of indispensable human talent.

Aside from the cost to our country's future growth and development, there is a much more personal cost. It is the cost experienced by the individuals and their families as a result of failure. It is extremely difficult to measure the impact of failure in personal lives, not because it is difficult to detect, but because it affects so many areas of the persons' lives. In addition to the obvious economic costs, there are emotional and psychological ramifications that must be considered. Who is to say how long these students will persist in seeing themselves as failures once they have been dismissed from an
institution of higher learning? "It is painful to see oneself as a failure at any age; at the vulnerable and sensitive developmental age of eighteen or nineteen, this sense of failure can cause lasting damage to the self-esteem and identity, and consequently influence an entire lifetime" (Pitcher & Blanshild, 1970).

Blame for the increasing number of students who fail out of college is often ascribed to secondary schools, or parents, or laziness, or many other factors including an affluent society, television, the "new morality," and higher education itself. Placement of blame, however, has not produced solutions. Students keep failing out of college, in most cases wasting their talent and usefulness (Pitcher & Blanshild, 1970).

Trying to identify causal relationships is certainly worth all the time and energy anyone has to spend, but what to do with those students who are currently suffering from failure and low achievement is an equally worthy task. Regardless of who or what is to blame for the current state of affairs in higher education, something more needs to be done for those students who can still be reached and saved from the painful completion of the failure syndrome they have participated in to this point.

Historically, attempts at remedianting low academic achievement have taken two diverging paths. The first is typically referred to as a study skills model and carries
with it a number of implicit assumptions which help justify the treatment procedure. The model has been most influenced, of course, by the notion that marginal or low academic performance is a result of ineffective study skills, habits, and attitudes, and that these can be remedied through instruction in study skills and orientation (Robyak, 1977). This approach further assumes that there are a number of effective study skills, and that these skills can be used to differentiate successful from unsuccessful students (Robyak, 1977). Once these deficits have been identified, it is a matter of providing instruction in the necessary areas and correcting the deficits, thus allowing the student to perform on a higher academic level.

A review of studies examining the effectiveness of 22 study-skills courses (Entwisle, 1960) found the content of such programs ranging in focus—from one defined as narrowly as problems related to reading, to more broadly designed courses which even include extensive individual counseling. There has been a general lack of agreement as to the proper or most beneficial content for such courses. In many instances authors end up turning to "expert opinion" rather than results of empirical findings; e.g., Pauk (1974) and Robinson (1940).

Various inventories have been created in an effort to provide information about the nature of the student experiencing academic difficulty (Brown & Holtzman, 1955, 1967;
Raygor, 1970; Wrenn, 1941). These inventories also assume the primary cause of low achievement to be some degree of study skills deficits. Their goal is to identify as concretely as possible and in a diagnostic fashion the particular deficits. Information from the diagnosis is then applied, theoretically, to the designing of an intervention program. Brown and Holtzman's (1967) Survey of Study Habits and Attitudes is probably the most popular and widely used. As the title suggests, they make an attempt to include personality factors as they apply to academic performance.

The second general approach is based on a counseling model which attempts to identify the relationship between personality traits and academic performance (Taylor, 1964). Emphasis here has been on the modification of traits and characteristics associated with ineffective academic performance rather than on the acquisition of effective study skills (Robyak, 1977). The underlying assumption in the counseling approach to ineffective academic performance seems to be that ineffective students can become more effective by modifying certain emotional or behavioral patterns or by learning how to manage personal conflicts (Robyak, 1977). The accomplishment of this treatment goal, in turn, is thought to facilitate improvement in academic performance. Roth and Meyersberg (1963), for example, identified and developed an intervention strategy for a
behavior pattern they labeled the Nonachievement Syndrome. The approach involves a group counseling model in which students are helped to understand and modify the "dynamics of underachievement." The goal of this treatment is to stop the cycle of disparagement, anxiety, functional disability, hopelessness, and frustration associated with ineffective academic performance. Using this approach, Roth, Mauksch, and Peiser (1967) reported significant GPA differences between a counseled and a control group.

The question remains, "how effective have these professionally accepted approaches been?" Mitchell and Piatkowska (1974) attempted to answer this question by reviewing 31 separate outcome studies. They reported that overall, the percentage of significant group increases in academic performance following treatment was found to be 16 percent when expressed as a function of the total number of groups treated and 26 percent when expressed as a function of the total number of studies carried out. In another study, Mitchell and Piatkowska (1974) charge that not only are currently accepted remediation procedures relatively ineffective, but they also contribute little or nothing to either theory or practice, and are, consequently, a waste of valuable time and resources. So, while there has been an increased tendency in the past 15 years for schools, colleges, and universities to offer programs for treatment of low-achieving students, there has not been a
corresponding increase in effectiveness. It would seem as though more could be done to help students who are experiencing academic difficulty to a degree which jeopardizes their remaining within the university setting, and in doing this, realize corresponding advances in theory. In trying to devise a more effective treatment approach, one cannot go very far in the literature before experiencing the tremendous number of characteristics associated at various times and by various people with the low-achieving or under-achieving phenomenon. Blackham (1955), Morgan (1952), and Powell and Jourard (1963) speak of emotional maturity, while Hopkins, Molleson, and Sarnoff (1958) focused on impulsivity and negativism toward authority. The more obvious factors, such as limited reading skills, poor study habits, lack of motivation, and poor curriculum choices, enjoy considerable attention (Chestnut, 1965; Hill, 1966; Preus, 1965). Mitchell and Piatkowska's (1974) comprehensive review of the literature was an effort to identify characteristics associated with effective treatment approaches. Part of their task was to classify client symptoms. They chose intellective (skills essential to effective study, study habits, application to study, academic and vocational goal-setting, and past performance) and non-intellective characteristics (personality traits, attitudes, interpersonal behavior patterns and feelings, interests, and environmental stressors).
It would seem, then, that a treatment program that hopes to respond to the variety of needs of a university student body experiencing academic difficulty needs to be flexible enough to deal with the range of characteristics mentioned above. Rational Stage Directed Imagery (RSDI) in combination with a study skills component can offer such flexibility.

The main treatment approach used in this study, Rational Stage Directed Imagery (RSDI), (Tosi, 1974; Tosi & Marzella, 1975), is a cognitive experiential perspective, and builds substantially on Albert Ellis's Rational Emotive Therapy (RET) (1962, 1973, 1977), while integrating facets of other approaches to therapy.

RET is a cognitive-behavioral approach to understanding human behavior, and as such places primary therapeutic emphasis on man's cognitive appraisals of the world around him. Seen from this perspective, the occurrence of undesirable emotions and/or self-defeating behavior is an indication that a person is engaging in faulty or irrational thinking (Arnold, 1968; Beck, 1967; Lazarus, 1971; Maultsby, 1971; Meichenbaum & Cameron, 1974; Moleski & Tosi, 1975; Tosi, 1974; Tosi, 1976).

RET, unlike most other theories that look to either environmental factors or early traumatic events, stresses man's ability to "create" his own experience by exercising cognitive control over the way he sees and interprets the
Ellis (1977) does not dispute other factors that may or may not be contributing to a person's emotional distress; he simply feels that man's thought processes happen to be the most influential and sensitive to therapeutic intervention. RET attempts to identify the irrational thinking or self-talk that is most likely contributing to the problem, and quickly and directly restructure the thought processes to be more in line with objective, scientific reality.

Rational Stage Directed Imagery and Rational Stage Directed Hypnotherapy, developed by Tosi (1974) with his associates (Boutin & Tosi, 1976; Reardon & Tosi, 1976; Tosi & Marzella, 1975; Tosi & Reardon, 1976; Tosi, Howard, & Gwynne, 1979) as a cognitive-experiential perspective, synthesizes sensory-imagery and relaxation techniques with a cognitive restructuring technique. Additionally, and quite uniquely, the entire procedure is structured around a time dimension integrating past, present, and future experiences, and progresses through awareness, exploration, commitment to rational thinking and acting, implementation of rational thinking and acting, internalization, and stabilized change. More specifically, the client is helped to analyze the nature of his presenting concern by identifying the irrational thinking and/or behaving. More rational ways of thinking and/or acting are identified, explored, and accepted. Using vivid cognitive-emotive
imagery in conjunction with standard relaxation techniques, the client is asked to imagine himself acting and thinking in more rational, self-enhancing ways. In an effort to facilitate and reinforce new learnings, the client is guided through the above-mentioned stages of growth, with major emphasis placed on high-level cognitive control over affective, physiological, behavioral, and situational conditions.

As the client is guided through the above-mentioned growth stages, he encounters, via imagery, events which serve to activate the irrational thought processes which underlie and perpetuate emotional disturbances (Tosi & Marzella, 1975). It is here that the client has the opportunity to explore and become aware of more rational ways of thinking and acting. The process is supplemented by a cognitive restructuring exercise, specifically Tosi's (1974, 1980) ABCDE elaboration of Ellis's ABC self-analysis, which includes a step by step breakdown of the process. A more recent model is provided below:

A. Events (real or imagined)

B. Cognitive appraisals and belief structures
   b₁. Appraisal of event
   b₂. Appraisal of response to event
   b₃. Appraisal of self-system

C. Affective or emotional response
D. Physiological concomitant or resultant response
E. Behavioral motoric responses or operations.

Part of the therapeutic process is educational in nature. From the start, the client is taught the rudiments of RSDI-cognitive control of behavior and/or feelings—and practices to gain a working understanding of the entire procedure. The skills themselves are taught, reinforced, and implemented while the client is in a deep state of relaxation. RSDI also makes use of "in-vivo" behavioral assignment corresponding closely to the imagery content in an effort to maximize growth outside the therapeutic setting (Tosi & Marzella, 1975).

**Purpose of the Study**

The purpose of this study is to determine the relative effectiveness of four group approaches to remediating academic low achievement: Rational Stage Directed Imagery, Cognitive Restructuring, Relaxation Training, and Study Skills Counseling. The study skills approach will act as an active control as well as a supplemental addition to each treatment group. Effectiveness will be measured using a number of self-report instruments as well as grade point average.
Hypotheses

The following null hypotheses were investigated:

**Effects: treatments.** Means representing academic achievement as measured by grade point average (GPA), total self-concept as measured by the Tennessee Self-Concept Scale (TSCS), rationality as measured by the Personal Beliefs Inventory (PBI), academic skills and abilities as measured by the Survey of Study Habits and Attitudes (SSHA), and emotionality as measured by the State-Trait Anxiety Scale (STAI), from groups of subjects defined in terms of various treatments, Rational Stage Directed Imagery (RSDI), Cognitive Restructuring (CR), Relaxation Training (RT), and Active Control (AC) will not differ significantly across pre, post I, and post II conditions.

**Effects: therapists.** Means representing academic achievement as measured by GPA, overall personal adjustment as measured by the TSCS, rationality as measured by the PBI, academic skills and abilities as measured by the SSHA, and emotionality as measured by the STAI, from groups of subjects defined in terms of therapists involved in RSDI, CR, RT, and AC will not differ significantly across pre, post I, and post II conditions.

**Interaction: effects.** Observed means representing academic achievement as measured by GPA, overall personal adjustment as measured by the TSCS, rationality as measured by the PBI, academic habits and attitudes as measured by
SSHA, and emotionality as measured by the STAI, from groups of subjects defined in terms of and in any combination of treatments and therapists will not differ significantly from the means expected from simple addition of the aforementioned main effects, across pre, post I, and post II conditions.

**Assumptions**

Several assumptions were implicit in the design of this study. These assumptions were as follows:

1. The differences between the groups were a result of the treatment approaches.
2. The size of the groups was adequate enough to justify undertaking the study.
3. The subjects' responses to the psychological measurements were assumed to be valid.
4. Academic achievement could be improved in the time allotted to the study.

**Limitations of the Study**

The limitations of this study are as follows:

1. The experimental population was limited to undergraduate students who were on academic warning or probation and were enrolled in The Ohio State University's University College.
2. The subjects volunteered for the program and therefore do not necessarily represent a cross-section of undergraduate low achievers.
3. The time allotted for the study was restricted to the Spring Quarter, 1978, at The Ohio State University. Additionally, the lapsed time between post test I and post test II was five weeks.

Definition of Terms

The following terms were used extensively in this study and are, therefore, defined for a better understanding of the research.

Study Skills Counseling (Active Control). The treatment condition where Ss met and received instruction in study skills, habits, and attitudes. Because of the nature of the concern and the fact that it dealt with the students' academic future, a true "no treatment" control group under existing conditions may raise ethical questions.

Rational Stage Directed Imagery. A cognitive-behavioral treatment intervention, developed by Tosi (1974) and associates, which incorporated both didactic and experiential components. Clients are taught the rudiments of cognitive-restructuring along with a synthesis of relaxation training, guided imagery, and progressive stages of growth.

Rational. A philosophical-scientific concept used by Ellis (1977) to evaluate behavior as well as thought processes. Maultsby (1971) has outlined four qualifying criteria:

1. These processes consider subjective and objective reality.
2. These processes contribute to the preservation and enhancement of life.

3. These processes contribute to the achievement of one's personally defined short- and long-term goals.

4. These processes minimize significant personal and environmental stress.

Low Achievers. The Ohio State University students who were placed on academic warning and/or probation for a GPA below 2.00. All were enrolled in The University College and were freshmen or sophomores.

Cognitive Restructuring. A cognitive behavioral treatment which is both didactic and experiential and is designed to restructure the client's thinking, acting, and feeling along more rational, self-enhancing lines. Taken directly from Ellis's Rational Emotive Therapy (1962).

Relaxation Training. A treatment intervention involving progressive muscle relaxation via imagery. The subject is instructed to imagine each muscle group, in progression, becoming deeply relaxed, the rationale being that high levels of anxiety interfere with academic performance.

Organization

Chapter I has established the purpose of the study, assumptions, limitations of the study, hypotheses, and a definition of terms used throughout. Chapter II presents
a review of the literature pertinent to the study. Chapter III contains the methodological considerations, the data analysis procedures, and the research design. Chapter IV is a report of the results and findings of the experiment, and Chapter V summarizes the results and conclusions, as well as addressing future recommendations.
CHAPTER II
REVIEW OF THE LITERATURE

The major question upon which this study focuses is which of the four approaches to improving students' academic achievement is most effective: rational stage directed imagery, cognitive restructuring, relaxation training, or study skills counseling. A review of the research literature pertinent to the variables contained in these questions and their relationship to one another will be the concern of this chapter. The chapter will review literature concerned with (a) the nature of low achievers, (b) Rational Emotive Therapy, Rational Stage Directed Therapy and Cognitive Restructuring, (c) Relaxation Training, and (d) Study Skills Counseling.

Theory of Low Achievement

In trying to label, categorize, or define the treatment population under study, many problems arise. Much of the related research and theoretical literature uses the term underachievers to describe the student who is functioning less well than he or she could. Two of the major problems come with the meaning of "less well" and "could" (Kornish, 1965). Is it "less well" in terms of standards established by the student?, teacher?, parents?,
or by an objective intelligence or aptitude test which predicts a certain level of performance? And if the researcher finally decides how "less well" is to be determined, what techniques will be used to measure it?

Many authors view underachievement as a problem in prediction which places the problem with the person doing the predicting (e.g., Carlson & Fullmer, 1959; Schwitzgebel, 1965). Underachievement is a problem in prediction due to the influence of factors other than general ability or past record. The implication is that were we to know and understand all the factors that combine to produce achievement, and were we then able to accurately measure them, we would eliminate the underachievement concept. We would be left with various levels of achievers, e.g., low and high, that reflected observable performances. Even without this advanced, and perhaps ultimately unobtainable, understanding, the interested researcher can deal with the theoretical dilemma by staying with the cold, hard facts. This study will use the term low achiever to describe all students not meeting university academic requirements of minimally acceptable scholastic achievement; i.e., 2.00 GPA on a 4.00 grade scale. Therefore, problems could be managed by using measurable, observable data and not trying to justify a concept such as under or over achievement.

There are thousands of students at universities across the country who are suffering the physical and emotional
consequences of academic failure. Perhaps the question should be what can we do to help them rather than are they underachiever or "just" not bright enough to do college level work. If you admit the problem exists, i.e., college failures, and believe that every person is capable of performing on a higher level than he is currently doing (Leland, 1976), the focus swings to trying to find the most effective and efficient way to be of help. Admittedly, it makes theoretical sense to pursue the concept of underachievement in hopes of deriving differential treatment, but the current state of the art is not such that attempts to provide help should be limited to this perspective. For the present time, while others continue to study the nature of the student experiencing significant academic difficulty, treatment oriented research can maintain a rather broad view of these students as LOW ACHIEVERS. This can currently be validated without skating on theoretical thin ice.

Attempts at explaining academic low achievement have generally fallen into two partially overlapping theories, a study skills deficit model and an emotional adjustment or counseling model. The study skills deficit model theorizes that unsatisfactory academic performance is a result of ineffective study skills and attitudes that can be remediated through instruction in effective study skills. Robyak (1977) has identified two underlying assumptions of
this model. First, it is generally assumed that there are a number of effective study skills and that these skills can be used to differentiate successful from unsuccessful students. As far back as the 1930s there have been attempts at identifying effective study skills (Cuff, 1937). Attempts were made at discriminating successful from unsuccessful students on the basis of how frequently each group of students performed a variety of study behaviors (Brown & Holtzman, 1955; Carter, 1948). They identified differences at a statistically significant level, but were unable to predict whether a student would be successful or unsuccessful. The second assumption, following from the first, is that academically ineffective students need to acquire effective study habits and attitudes in order to become academically effective, and, as such, many study skills programs are designed to provide instruction in effective study skills (e.g., Pauk, 1974; Robinson, 1940). Entwisle (1960) indicates that study skills courses do raise GPA, although this improvement was not related to course content, duration, nor instructional method.

In what is perhaps the most up-to-date and thorough review of the literature available, Mitchell and Piatkowska (1974) used the term intellective and non-intellective characteristics to categorize variables associated with underachievement. Their intellective category corresponds to the ideas included in the study skills model and includes
the following variables: study habits, application to study, academic productivity, academic and vocational goal-setting, and past performance. Their analysis of 224 separate studies identified study skills and habits and academic application as discriminators of achievement levels.

Morrow (1970), in another comprehensive review of the literature, identified three study skills areas that differentiated successful from unsuccessful students. He found that marked differences appear in study habits where underachievers work less regularly and persistently at academic tasks, exert less effort, and are more distractible when they do work, and leave incomplete a greater (and substantial) amount of assigned work. Secondly, their study methods tend to be more unsystematic, careless, and inefficient. Thirdly, their attitudes, interests, and goals are less academically oriented. They have lower aspiration levels, find school more unsatisfying and teachers more unsupportive, are less interested in academic and intellectual activities, and are somewhat more uncertain about vocational goals.

If the literature is reviewed in an effort to identify characteristics which correlate with low achievement and the study skills deficit model, certain categories continue to reappear.
Academic application has received considerable study in relation to low academic performance (Barton et al., 1972). Weigel and Weigel (1968) found that low achieving students have an adequate knowledge of study skills, but put them to use too infrequently. The idea is not that they do not know how to study, but that they do not use, in a consistent fashion, what they know. They suggest that the focus of remedial program be on maximizing the use of effective study skills. Additional support for this variable comes from DeSena (1964) who found that these students lack persistence and conscientiousness in study as reflected by low class attendance and a small amount of time in private study. In contrast, he found overachievers to be persistent, conscientious, and committed to their academic work. Mitchell and Piatkowska, through a massive study (1974), found a moderate association, overall, between academic application and achievement. Topkin (1967) found overachievers to be persistent, conscientious, and committed to their academic work. Holtzman and Brown (1968) reported a correlation of .41 between achievement and "delay avoidance," while Oakland (1969) reported positive correlations with "persistence" (.36), "perfectionism" (.50), and with "being a dependable worker" (.43).

Academic productivity has been examined in a number of studies (Holland, 1959; Lum, 1960; Oakland, 1969; Shaw & Grubb, 1958) and found to correlate directly with
achievement—e.g., low academic output—for example, failing to complete practical assignments seems to be characteristic of low achievers. In contrast, overachievers are highly and punctually productive of academic work (Holland, 1959).

Academic and vocational goal-setting is another variable studied in this area. Studies suggest that low achievers have unrealistically high, uncertain, or no stated academic goals (Brown et al., 1954; Hopkins et al., 1958; Posthuma & Navran, 1970). In contrast, studies of overachievers (Gowan, 1957; Kurtz & Swenson, 1951; Merrill & Murphy, 1959) show them to be characterized by definite, realistic, efficient, and conservative goal-setting, and to be capable of relating their academic work to future goals. Further, DeSena (1964) found underachievers to differ significantly from both overachievers and normal achievers in "maturity of goals" and "level of aspiration" measures. Mitchell and Piatkowska (1974) reviewed fourteen studies measuring this variable, and found a low but consistent relationship between "maturity" in vocational choice and achievement.

The personal adjustment or counseling theory of low academic achievement focuses on non-intellective characteristics (Mitchell & Piatkowska, 1974; Roth & Meyersburg, 1963). This approach emphasizes the relationship between personality and motivational variables and academic
achievement. It assumes that such characteristics as self-evaluation attitudes, personality traits, and interpersonal behavior patterns are more central to academic performance than are the variables studied in the study skills model. Of particular interest have been the personality characteristics of academic low achievers (Hackett, 1960; Kirk, 1952; Merrill & Murphy, 1959). Emphasis has often been on the modification of those characteristics associated with ineffective academic performance rather than on the acquisition of effective skills. Justification for this approach is based on a number of counseling studies showing that study skills programs are ineffective when used alone, but are associated with GPA improvement when used as an adjunct to either individual or group counseling (Bednar & Weinberg, 1970).

Robyak (1977), points out the underlying assumption inherent in the model, and suggests that ineffective students can become more effective by modifying certain emotional or behavioral patterns or learning how to manage emotional conflicts. The accomplishment of this goal, in turn, is thought to facilitate improvement in academic performance.

This assumption is clearly exemplified by the work of Roth and Meyersburg (1963), who developed a treatment program for a behavior pattern they labeled the Nonachievement Syndrome. They believe that the student's low performance
is more a function of that student's choices than a sign of inability to achieve. They use a group counseling model in which students are helped to understand and modify the "dynamics of underachievement." The goal of this approach is to interrupt the cycle of disparagement, anxiety, functional disability, hopelessness, and frustration associated with ineffective performance. Using this approach, Roth, Manksch, and Peiser (1967) reported significant differences between the GPAs of a counseled and a control group. The immediate and long-term GPA improvements were attributed to changes in the students' dynamics of underachievement, brought about through the counseling treatment program.

Studies using a counseling model have identified a number of non-intellective characteristics (Mitchell & Piatkowska, 1974), including personality traits, attitudes, interpersonal behavior patterns, and feelings and interests. Anxiety, both general and test specific, has received a tremendous amount of attention in efforts to explain low performance. The findings appear to be contradictory with regard to general anxiety. Roth and Meyersburg (1963) found low achievers to be high in general anxiety, while Holland (1959) found overachievers to be lower when compared with low achievers. But there are other studies (Alpert & Haber, 1960; Desiderato & Koskinin, 1969; Faunce, 1968; Spielburger, 1962) that report little if any
relationship between general anxiety and low achievement. Perhaps one explanation of the seemingly contradictory results is suggested by Ley et al., (1966), who found a curvilinear relationship of general anxiety with achievement, where very low and high levels of anxiety were debilitating.

Test anxiety as a particular form of general anxiety has received an equal amount of attention. Here the evidence in favor of a high degree of test anxiety being debilitating is more consistent. Investigations have found low achievers to be highly test anxious, specifically in evaluative examination situations (Alpert & Haber, 1960; Biggs et al., 1971; Carrier & Jewel, 1966; Kestenbaum & Weiner, 1970; Sarason, 1971; Spielberger, 1966). Mitchell and Piatkowska (1974) summarize their review of the test anxiety literature by saying that the evidence seems to indicate a moderately high and consistent relationship of test anxiety with achievement as well as playing a major role in maintaining low academic performance. They recommend that the alleviation of test anxiety in its extreme form take a high priority in any treatment program for low achievers.

Studies of self-concept, self-image, or self-evaluation have produced findings that contribute to an understanding of low achievement. Many investigators have reported negative self-evaluations to be characteristic of
low achievers, including self-derogatory and depressed attitudes, feelings of inferiority, insecurity, and lack of optimism (e.g., Mehta, 1968). Holland (1959) found an excessively "superior self-image" which he interrupted as a compensatory denial of normal shortcomings. Low achievers have also been reported as less self-confident than normal achievers (Faunce, 1968) and lower in ego-strength and insight. In contrast, Mitchell and Piatkowska (1974) report 17 investigators found overachievers to be generally characterized by positive self-evaluation (e.g., Haynes & Kanfer, 1971).

Borislow (1965) studied self-evaluation as a non-intellectual factor in scholastic achievement using a representative sample of college freshmen. He found that where students indicate an intention to strive for good grades, it was clear that those who turned out to be low achievers possessed a more pessimistic picture of themselves as students than did the achievers, both prior to and subsequent to academic performance. Where the intent to strive for good grades was not dominant, low achievers were distinguished from achievers in terms of lower student self-evaluation only after scholastic performance.

Fink (1965), after reviewing much of the literature on personality variables associated with academic achievement, hypothesizes that in trying to understand low achievement it is more fruitful to investigate central
motivating forces than peripheral forces such as lack of perseverance (Terman, 1952), the need to commit asocial acts (Gough, 1953), and conflict between submission and aggressiveness (Green, 1963). Fink suggests self-concept as an example of the type of central motivation force that would significantly influence academic achievement. He compared GPAs from pairs of achievers and low achievers that had been matched for sex and I.Q. Results clearly supported his hypothesis with male participants, but were less supportive with the female participants.

In a closely related area Berger (1958, 1965) has studied "the idealized image"; i.e., the person you expect yourself to be as a result of cultural shaping. Any behavior detracting or incongruent with this image is quite threatening and therefore denied or avoided. People end up accepting only those parts of themselves which correspond to their idealized image. Berger hypothesizes that low achievers characteristically show four self-defeating features: (a) they set extremely high standards for themselves, (b) they deny wholeheartedness in their efforts, (c) they believe that they should achieve at a high level with little effort, and (d) they are unwilling to risk being wrong, being disappointed, or doing poorly.

The low achievement of students with this set of attitudes has been interpreted as being motivated by a preference not to try hard rather than risk falling below
their idealized image. Here, again, is found the same type of self-defeating self-rating to which the above studies point. Berger works to get these students to demonstrate a willingness to accept limitations, which is quite similar to RET's efforts at rationality.

Independence is another variable viewed in relation to academic performance. Stagner (1933) identified it early as a crucial variable in his review of the literature. He found low achievers to have strong dependency needs and to lack independence from parents in choosing goals and courses of study (Powell & Jourard, 1963). Results of studies examining overachievers alone are inconsistent with almost as many investigators claiming they are highly independent (e.g., Horrall, 1957) as those who claim they are dependent (e.g., Holland, 1959). Studies examining the level of independence of normal achievers and the relationship between independence and general achievement tend to find positive relationships between normal achievement and some indices of independence, such as independence in decision-making, risk-taking, and choosing friends (Miller, 1970), "adventurousness" and leadership (Gough, 1964; Oakland, 1969), and independence of peer-group support (Ringness, 1967). Mitchell and Piatkowska (1974) summarize this area by reporting a low, though inconsistent, association between independence and achievement.
Conformity was found to be another critical variable (Frankel, 1960). Low achievers tended to have hostile attitudes and nonconforming, rebellious behavior toward both parents and institutional authority figures. Merrill and Murphy (1959) reported that overachievers tended to be conformers, that is, eager to please and carry out the demands of the teachers. Ringness (1967) and Faunce (1968) also found low achievers to more "rebellious" and less "conventional" than normal achievers.

Other studies found evidence of interpersonal problems (Faunce, 1968; Powell & Jourard, 1963), including social withdrawal and apathy (Gowan, 1957), excessive criticalness of others (Gough, 1953), feelings of rejection (Walsh, 1956), heterosexual conflicts (Hopkins et al., 1958; Kurtz & Swenson, 1951), and the rejection of group standards by harsh criticism and displays of anger (Oakland, 1969).

Another way of understanding the low achiever is to study his behavior in hopes of identifying useful patterns which will then have implications for treatment. Low achievement has often been studied in relation to impulse control (Kipnis, Lane & Berger, 1969; Lavin, 1967). They have been found to exhibit very limited impulse control, which is seen as a general characteristic extending throughout their life-style. This deficit indirectly accounts for what some authors refer to as an "irresponsibility syndrome" (Lacker, 1973), causing complaints of chronically
poor memories, frequent broken appointments, cut classes, and missed deadlines for academic work. Kipnis and Resnick (1971), in studying achievers and low achievers, found the low achievers to be poor at keeping appointments, overly impulsive, low on work output, and poor at handling academic conflicts.

What might be most frustrating to the concerned counselor is the result found in studies focusing on the treatment of low achievers. They tend not to seek help, choosing, in many cases, to deny the possibility of academic problems or their role of responsibility in such situations (Kipnis & Resnick, 1971; Pitcher, 1970). It is suggested that low achievers rarely come to treatment, or make use of counseling relationships, if they come at all. When they do seek help, it is often at a point in time when very little can be done to salvage the current situation (Pitcher, 1970). Once they have faced the impending realities of academic failure, it is most likely to be a lengthy program of remediation to which they are oftentimes not willing to commit themselves (Bednar & Weinberg, 1970; Pitcher, 1970).

In a massive review of the literature on academic achievement as it relates to and sheds light on low academic achievement, Mitchell and Piatkowska (1974) examined 224 separate studies. They found a number of related characteristics. A moderate positive relationship exists
between study skills (particularly reading) and achievement and suggests that: (a) academic performance tended to increase with improved reading skills; (b) low achievers are inefficient; and, (c) low achievers are significantly less efficient than achievers. There is a relationship between academic performance and study habits strong enough to suspect its probable contribution to the continuance or maintenance of low achievement. Further findings support a moderate association between academic application and achievement and that: (a) low achievers lack persistence and conscientiousness in study—i.e., low class attendance and time in private study (DeSena, 1964); (b) high achievers are persistent, conscientious, and committed to their academic work, as was found in all relevant studies (e.g., Topkins, 1967); and (c) low achievers show significant lower academic application than high achievers. Low academic productivity was another identifying characteristic of low achievers; for example, failing to complete practical assignments. They also tend to set unrealistically high, uncertain, or no stated academic goals (Brown et al., 1954; Hopkins et al., 1958; Posthuma & Navran, 1970). And lastly, past performance of low achievers was predictably low.
Rational Emotive Therapy

Rational Emotive Therapy (RET) was developed by Albert Ellis in a series of articles, beginning in 1955 and culminating in the book *Reason and Emotion in Psychotherapy*, published in 1962. Ellis chooses to emphasize man's thinking processes as the primary determinant of human behavior. Although Ellis is the founder of RET, cognitive approaches to understanding man's feelings and behavior are centuries old. As early as the fifth century B.C., Hippocrates discussed the function of the brain and the nature of consciousness and concluded:

Some people say the heart is the organ with which we think and that it feels pain and anxiety. But it is not so. Men ought to know that from the brain, and from the brain only, arise our pleasures, joys, laughter, and tears. Through it, in particular, we think, see, hear, and distinguish the ugly from the beautiful, the bad from the good, the pleasant from the unpleasant. . . . To consciousness the brain is a messenger (In Jones & Withington, 1958).

Somewhat later, Epictetus, the Roman Stoic philosopher, is quoted as saying "Men are disturbed not by things, but by the views which they take of them" (89). In the twentieth century others have supported the role of cognition in effecting man's emotional well-being. Alfred Adler's (1927, 1964) theories regarding behavior and psychopathology are one of the primary bases upon which cognitive therapy in general and rational psychotherapy in particular are founded. Adler's theory reflects the notion that a
person's emotional reactions, in fact his entire healthy or neurotic life style, are directly related to his basic ideas, beliefs, attitudes, and philosophies about the world and especially himself. In other words, they are cognitively created. Adler (1964) realized that an individual's feelings of inadequacy or inferiority were cognitive in origin when he said, "In a word, I am convinced that a person's behavior springs from his idea" (p. 19). Adler (1927) viewed the experiencing of inordinate levels of negative emotions such as anger, depression, anxiety, and hostility as attempts on the part of the person to control the environment, situations, and other persons. He hypothesized that the major cause of these motivations lay in the person's striving for superiority in the face of feelings of personal inferiority (or poor self-concept). Although Adler was somewhat vague in identifying specific approaches to modify these self-defeating emotional reactions, one of the methods which he espoused was education. He (1958) pioneered the notion that therapy was educational and that education should be therapeutic.

Other early adherents to the idea that self-verbalizations mediate the production of emotions were Korzybski (1933), Johnson (1946), and Shaffer (1947), who defined therapy as a "learning process through which a person acquires an ability to speak to himself in appropriate ways so as to control his own conduct (p. 463)."
George Kelly's (1955) Fixed Role Therapy is an approach which involved a client's adopting the characteristics (behavior, thinking, feelings) of a fictional character "as if" he were that person. It involved cognitive-imaginal control by the person over the problematic thoughts, feelings, and behaviors that he presented, and substitution of those characteristics adopted from the fictional idealized model.

Kelley's (1955) approach bears a similarity to Ellis's (1962) Rational Emotive Therapy (RET); however, lack of specific therapeutic structure in Kelly's approach, for one reason, may account for the rise in popularity of RET and the relative decline of Fixed Role Therapy. Rational Emotive Therapy assumes that psychological disorders arise from faulty or irrational patterns of thinking. Early in his professional career, Ellis subscribed to the prevailing dynamic point of view, but over the years, he evolved an approach (RET) that was increasingly more oriented away from the goal of "historical" insight and toward the here and now cognitive factors that directly mediate maladaptive behaviors and emotions.

The chief method which Ellis uses in therapy is direct and non-subtle activity by the therapist to persuade the client to modify his self-verbalizations. Since that time, RET has incorporated many additional methods to clarify and restructure irrational thinking toward more rational ways
of thinking, feeling, and behaving. Tosi (1974) cites several techniques which may be used within a rational framework: rational emotive modeling based on Bandura (1969); utilization of the Premack principle (Tosi, Briggs, & Morley, 1971); assertive training, thought control (Lazarus, 1971); aversive imagery (Cautela, 1972); REI and systematic written homework (Maultsby, 1971). Others lending support to cognitive behavior theory include Meichenbaum and Cameron (1974, 1972), Schacter and Singer (1962), Beck (1967), Arnold (1960, 1968, 1970), Lazarus (1971), and Zimbardo et al., (1972).

Meichenbaum and Cameron (1974) have demonstrated the clinical potential of modifying clients' self-verbalizations, and Meichenbaum, et al., (1971) and Moleski and Tosi (1976) show that clients who suffered high anxiety could benefit more from RET than from standard desensitization procedures. Lazarus (1971), Trexler and Karst (1972), and Maes and Heimann (1970) have all shown RET to be effective in various situations. Beck (1967) has outlined specific cognitive interventions used in treating depressive disorders. Rimm and Masters (1974) have concluded, "The experimental findings we have reviewed, in concert with favorable outcomes obtained in the clinic, provide rather convincing evidence that Ellis's rational-emotive approach can be effective in modifying maladaptive behavior and emotions" (p. 429).
Schacter and Singer (1962) in their classic study concluded that "by manipulating the cognitions of an individual in such a state of physiological arousal, we can manipulate his feelings in diverse directions" (p. 395). Arnold (1970) underscores this notion when she says, "there is hardly a rival in sight for cognitive theory in the field of emotion" (p. 123). In line with this, she regards emotion as a felt tendency toward anything appraised as good or away from anything appraised as bad or harmful. This attraction or aversion is accompanied by a pattern of physiological changes organized toward approach or withdrawal tendencies (Arnold, 1960, 1968). Leeper (1970) contends:

Emotions are perceptual processes. I mean this, furthermore, not in some odd and marginal sense, but in the full sense of processes that have definite cognitive content, or are rich in informational terms as well as in terms of their motivational properties (p. 156).

Numerous others have corroborated the notion of cognitive mediation in the induction of emotions both pleasant and unpleasant (Raimy, 1975; Schachter, 1966; Zeisset, 1968).

According to Meichenbaum and Cameron (1974), "when standard behavior therapy procedures were augmented with a self-instructional package, greater persistence of treatment efficacy, more generalization, and greater persistence of treatment effects were obtained" (p. 178). Other investigators have also suggested that a specific set of self-instructions significantly reduces anxiety (D'Zurilla, 1969; Goldfried, 1971; Suinn & Richardson, 1971; Zeissett,
1968). The same investigators substantiate the efficaciousness of a skills training program which is followed by an opportunity for in vivo application.

**Rational Stage Directed Imagery, A Cognitive-experiential Perspective**

As a radical extension of cognitive behavior therapy, RSDI is based heavily on the work of Ellis's (1962) cognitive restructuring, Maultsby's (1971) Rational Emotive Imagery (REI), Cantela's (1972) Covert Sensitization (CS), Bandura's (1969) Social Modeling, Jacobson's (1938) Progressive Relaxation (PR), and Erickson's (1979) and Barber's (1959) Hypnotic Modalities. RSDI also incorporates an analytic dimension and a staging concept. The contributions of the various theories will be reviewed with an emphasis on their contributions to RSDI.

REI (Maultsby, 1971) is another technique based on Rational Emotion Theory. In an attempt at expediting the behavioral change process, Maultsby incorporated an imagery component. Once a client has systematically identified the thoughts, feelings, and behaviors that are problematic within a given environmental setting, he is asked to imagine more rational or self-enhancing thinking, acting, and feeling within the previously identified environmental setting. The obvious advantage inherent in the imagery component is that it allows the client to "practice" his goal behavior prior to exposing himself to the actual
situation. This sets up a gradual conditioning process that can greatly enhance the therapy process. Maultsby (1971) lists the following benefits: (a) deconditioning to environmental cues, (b) formation of more adaptive cognitive maps, and (c) self-indoctrination in rational self-thinking. RSDI, similarly, uses imagery to facilitate the therapy process and promote change that will transfer to environmental settings.

Hypnosis and deep states of relaxation have been used to reduce therapeutic resistance. While leading authorities are not able to agree upon a scientific explanation of hypnotic trance, what it is, exactly and how it works (Barber, 1959, 1965; Erickson, 1979; Kroger, 1977), they seem most comfortable in describing it as a deep state of relaxation and focused attention (Gwynne, 1976; Tosi & Marzella, 1975). In an hypnotic state, many of the cognitive defenses which might ordinarily work against therapeutic progress are neutralized or in some way rendered inactive, allowing for communication to take place in a less restricted manner. With the client's defenses at rest the therapist is able to explore problem areas and make therapeutic interventions without encountering many of the client's resistances. There is a wide range of hypnotic techniques, with the choice usually coming down to therapist's personal preference, but all seem to include (a) an induction technique, where the client is
"moved" from a conscious, waking state to a semi-conscious or altered state of consciousness, (b) **deepening techniques**, which put the client into deeper levels of the trance, and (c) **working techniques**, which include various means of making the actual therapeutic intervention. Although hypnosis continues to be confronted by professional as well as lay populations, it is currently enjoying increasing popularity and research, indicating its effectiveness continues to mount (Erickson, 1979; Kroger, 1977). RSDI incorporates some of these ideas by using a verbal, progressive induction technique to move the client into a state of relaxation, a deepening technique to maximize depth and, of course, the cognitive restructuring through growth stages as its intervention strategy.

Cautela (1966a, 1966b) developed a number of cognitive-behavioral techniques which make extensive use of covert cognitive-behavioral rehearsal. Covert sensitization is one of the more popular techniques and has been used successfully in controlling undesirable behavior patterns such as excessive eating and drinking (Cautela, 1972). Using this technique, the problem situation is explored, identifying the relevant stimuli and undesirable behavioral response. The client is then asked to imagine the self-defeating behavioral sequence occurring as usual, but now is asked to covertly imagine an extremely noxious consequence occurring as a result of the undesirable behavioral
response. The noxious consequence is cognitively paired with the undesirable response. Once the sequence is learned, the client covertly imagines the noxious consequence each time he finds himself beginning to perform the self-defeating behavioral sequence. In RSDI, the behaviors in which we are interested are the client's covert cognitive behavior or irrational thinking. The client is asked to image himself participating in the material cognitive-behavioral sequence and to experience, via imagery, the undesirable emotions. Next, he is asked to imagine himself participating in rational cognitive-behavioral sequences and, again, to experience, via imagery, the favorable emotional consequences.

Social modeling is a very basic procedure that was applied most noticeably to the therapy setting by Bandura (1969, 1971). In essence, it requires exposing the client to models or individuals who are performing the desired behavior. Modeling can be used in behavioral conditioning processes such as might be appropriate for people experiencing phobic fears, or in learning total new behaviors where a gradual shaping process is built in. RSDI utilizes these ideas in asking the client to be his own model via the cognitive-behavioral imagery process.

Relaxation techniques are currently enjoying tremendous popularity. Jacobson (1938) worked with the physical and psychological benefits of relaxation and developed a
very detailed and systematic procedure for attaining a deep state of relaxation. His method is basically to talk to the client through the entire body, muscle by muscle, first tensing and then relaxing the muscle groups and thereby promoting progressive relaxation. Since his initial efforts, many others have studied the benefits of relaxation and developed alternative ways of achieving it (Benson, 1975; Blake, 1965; Lazarus, 1971; Rimm & Masters, 1974). RSDI integrates and utilizes the relaxation response, but does so cognitively—again using imagery to see the muscles becoming progressively more relaxed.

The concept of employing stages in the therapy process has developed from the work of Mooney (1963), Super (1957), Maslow (1970), Erikson (1963), and Quaranta (1971). Quaranta identified six stages of experiencing. He maintains that each person continues to cycle through the stages of awareness, exploration, commitment, skill development, skill refinement, and change or redirection. The stages are non-static and all stages include the six stages; e.g., awareness includes becoming aware, exploring, making a commitment, developing skill, refining that skill, and then changing or moving into the next stage of exploration. Tosi (1974) revised and applied these stages to the counseling setting and Tosi and Marzella (1975), Reardon (1976), Howard (1978), Tosi,
Gwynne, and Howard (1979) further adapted and modified the stages for Rational Stage Directed Therapy.

Awareness—The client sees in himself and his environment new possibilities for growth. He is introduced to new conditions that are contradictory to his self-defeating thoughts, feelings and actions. He sees that new thoughts, feelings and actions (skills) are needed to interact more effectively with his environment and with himself. He comes to consider himself both as subject and object. He realizes that he has consciousness of himself. Awareness implies witnessing, observing, as well as participating in one's innermost thinking, emotional experiences, psychological functioning, motoric functioning, and trans-actional functioning (Tose and Marzella, 1975).

In the awareness stage, the client is helped to become aware of his self-defeating thoughts, feelings, and behaviors. He is also made aware of self-enhancing possibilities in the area of thinking, feeling, and behaving. He is introduced to the basics of RSDI, especially the behavior modifying process and as he is guided through this stage he focuses on his current problematic thoughts, feelings, and behaviors along with more facilitative alternatives. Through increased awareness the client actually experiences, via imagery, his self-defeating thought-feeling-behavior patterns and comes to see how his irrational thinking is causing his presenting concern. He is then led to experience, via imagery, a more adaptive way of thinking within the same imagined problematic setting by restructuring the thought processes using the basic of RET. The client experiences more positive
affective-physiological states as a result of restructuring his thinking along more rational lines. According to Tosi (1974), the awareness stage emphasizes the cognitive functioning of the client, as the counselor facilitates the acquisition of information. With this newly acquired information the client is able to explore himself more deeply in his areas of concern.

Exploration—The client tests out his new awareness of knowledge about himself in the therapeutic context and in real life situations. He submits his old as well as his new ideas, translated into hypothesis, to the empirical test. He is engaging in high level cognitive restructuring in an experimental way. He experiences or re-experiences situations he previously avoided, tries out new behaviors or roles, and evaluates the consequences of his acts. Awareness is expanded as a result of self-in-situation explorations. Resistance becomes increasingly apparent in this stage. He is exploring and developing skills in this stage (Tosi and Marzella, 1975).

During the exploration stage, the client is encouraged to explore, first via imagery and later in the "in vivo" actual setting, his new awarenesses. In the first stage, he has become aware of his self-defeating patterns and some alternative ways of thinking, feeling and/or acting. He is now ready to actually experiment with the newly identified ways of being. During the session the client will do the exploration using the guided imagery, visualizing himself acting in more self-enhancing ways. Between sessions the client will try out this new behavior in the setting in
which he experiences difficulty. To reduce resistance and facilitate therapeutic movement, the client is not asked to make a commitment. He is asked to explore and be aware of the consequences of his new thinking-feeling-behaving patterns. At this point, it is hoped, the client will recognize the potential long-range advantages inherent in the proposed changes that he has been exploring and will decide to make a commitment to rational action.

Commitment to rational/constructive action--Client poses his previous awareness and explorations against his tendency to resist or not to resist an authentic encountering of self-and-environment. He is more aware of the innermost thoughts that produce affective/physiological reactions associated with his tendencies to approach or to avoid significant life situations or to develop the skills necessary to overcome his cognitive/emotional/behavioral/social difficulties. The stage of commitment represents an act of faith, a risk. A last minute attempt to avoid subjective or objective reality. It is the juncture at which many terminate therapy--the point of choice or decision to act (Tosi and Marzella, 1975).

The client now has greater awareness and has explored new ways of acting. He is at a very crucial point, one where he must decide whether or not to give up old ways of being in the world and take on new ways. For the process to continue at this point, the client must make the growth choice and more toward more rational, self-enhancing ways of living. It is an existential choice laden with anxiety and doubt. The deep relaxation component of the process helps to minimize resistance and makes it easier for the
client to make a commitment. Again, the commitment is made initially through imagery and later in a more public fashion; i.e., the client must begin to live his commitment. This is done as he moves into the implementation stage.

Implementation—The client, after privately and/or publicly committing himself to constructive action, implements constructive action or the self and environmental management skills he is in the process of acquiring. His skills at this stage may involve cognitive control over emotional/physical, and behavioral states—via biofeedback, meditation, cognitive-behavioral restructuring, problem solving, decision making, self-hypnosis, progressive relaxation, and the like (Tosi and Marzella, 1975).

During the implementation stage, the client begins actively engaging in the new behaviors to which he has made a commitment. Again, the process entails two steps; practicing the skills during the counseling session via imagery, and transferring these into live settings for further learning and reinforcement. It can be seen, also, as a skill development stage where the client is developing new coping skills. The counselor monitors and reinforces within each session, while the client monitors his progress in vivo and experiences reinforcing consequences from his environment. As the client engages in these new behaviors, they become a more natural part of his person; they become internalized.

Internalization—The client shows signs of making his new learnings and experiences a part of himself. He shows obvious signs of incorporating, more reasonable modes of
thinking and acting into his behavioral repertoire. The use of behavioral modifying procedures becomes second nature—he implements them with greater ease and proficiency (Tosi and Marzella, 1975).

With practice and continual reinforcement the new, self-enhancing ways of thinking, feeling, and acting become an integrated part of the client's personality. Performance of the new behaviors is requiring less and less conscious effort—they are becoming more spontaneous. It may even be that skills learned for one situation are generalized and transferred to other situations. The client is realizing that the locus of control over his cognitive-affective-physiological-behavioral processes is internal rather than external or environmental. It is at this point that the client begins to feel finished with the issue at hand. He is ready for change or redirection.

Change-redirection—The client observes himself. He notes significant changes in his thinking and sees that he can control significantly negative emotions and self-defeating actions. He transacts more effectively with his environment. He may reaffirm his process at this point, or redirect himself through the stages once again—relative to some other set of problematic concerns. He realizes the need for further growth (Tosi and Marzella, 1975).

This last stage is used to summarize and reinforce the gains that have been made throughout. It is also a time when the client may decide to redirect his efforts
into another problematic area, which would require going through the process again.

In each stage, the client is acquiring, developing, and refining behavioral modifying skills. These stages provide the client with a logical strategy to use in approaching problematic internal or environmental situations or events. They also enable him to monitor his progress in therapy and to more clearly recognize his acquisition of greater skills in rational self-management.

Numerous writers (Jencks, 1973; Lazarus, 1971; Mowrer, 1940; Valins & Ray, 1967; White, 1941) have provided evidence that relaxation may be achieved cognitively, that relaxation heightens imagery, and that reduction of tension and anxiety significantly facilitates learning and results in greater treatment generalization. In addition to relaxation, RSDI uses vigorous cognitive restructuring, within an imageric modality, to extinguish maladaptive cognitive, affective, physiological, and behavioral responses expressed by the client. Self-defeating cognitive appraisals and the accompanying affective, physiological, and behavioral concomitants are replaced or challenged by more adaptive sequence, through the imagery rehearsal process, in which the subject serves as his own model. The process is initiated (via imagery) in therapy and later carried out by the client "in vivo" (Tosi, 1974).
Lang (1968) has stated that "the absence of programs for shaping cognitive sets and attitudes may contribute to the not infrequent failure of transfer of treatment effects." RSDI seeks to maximize and generalize treatment effects through a multi-faceted therapeutic intervention in which clients engage in in vivo behavioral tasks corresponding closely to imagery content and which is integrated into clearly delineated stages in the therapy process.

A number of studies have suggested that one or more of the specific approaches subsumed under the title of RSDT may be effective in the treatment of disturbed persons in diverse situations. Boutin & Tosi (1976) studied test anxiety using a population of student nurses, while utilizing Rational Stage Directed Hypnotherapy as the primary treatment modality. RSDH was evaluated along cognitive, affective, behavioral and physiological domains in comparison to a hypnoses group, a placebo group, and a control group. The RSDH group manifested the greatest reduction in test anxiety and was able to maintain and even further improve their scores on two-month follow-up measures. The findings suggest the students had learned a process or way of processing information that continued to be useful over time.

Reardon & Tosi (1976) studied self-concept and psychological stress in delinquent adolescent females using RSDI and Rational Stage Directed Therapy (RSDT). The RSDT
is very similar to RSDI except that the imagery component has been eliminated. Additionally, a placebo and control group were used, and again, change was measured along cognitive, affective, and behavioral domains. The RSDI group showed itself to be superior, registering positive changes in overall self-concept, anxiety and depression. Again, additional improvements were revealed on a two-month follow-up assessment. Following Boutin and Tosi's study, the findings suggest that clients exposed to Rational Stage Directed forms of therapy that include some type of guided imagery or hypnosis make gains and acquire new learnings that not only hold up over time, but actually continue to improve in therapy relevant areas.

Howard (1979) and Tosi and Reardon (1976) did a similar study examining physical performance as well as mental health along cognitive, affective, and behavioral domains. He worked with weightlifters and found results that support the findings in the above two mentioned studies. In other studies Marzella and Tosi (1975) found conditional support for both RSDH and RSDI in an exceptionally well controlled study that was somewhat limited by statistical factors (the size of the N). Case studies by Reardon, Tosi and Gwynne, (1975) demonstrated that RSDH and RSDI, respectively, have considerable potential for modifying behavior, ameliorating pathology as measured by the MMPI, TSCS, and MAACL, and that positive variance in
self-concept may be achieved. Boutin and Gwynne (1970) found RSDH to be an effective treatment for test anxiety.

The implication of these studies is that the learning of a strategy to cope with problems is a crucial aspect of the treatment. RSDI is an intervention which attempts to provide a strategic or structured approach designed to help people utilize their thinking more efficiently in dealing with self-defeating emotional, physiological, and behavioral states. RSDI offers a strategic approach to the restructuring of cognitive approach of a variety of situations or events. In addition, RSDI offers the additional potential benefits of relaxation training and heightened imageric processes.

**Relaxation Training**

Anxiety is another major variable often studied in relation to academic performance. Sarason (1963), Paul and Erikson (1964), and Mitchell and Piatkowska (1974) show research evidence correlating anxiety and learning in educational settings. Their findings show that within a university setting high levels of anxiety are associated with lower levels of academic achievement. Speilberger (1962, 1966), who is one of the more prolific writers in the field, reports a dropout rate among university students resulting from academic failure that is four times greater for students rated as highly test anxious.
Researchers have attempted to understand the cognitive component of test anxiety. Sarason (1972, 1975) has examined attentional focus as a component of test anxiety. His studies show highly test anxious students to be low in attentional focus which has an especially detrimental impact on test taking performance. Others have tried to gain an understanding of anxiety in performance situations. Liebert and Morris (1967), Morris and Liebert (1970), Wine (1970), and Meichenbaum (1970) demonstrated that highly test anxious students spend an inordinate amount of time "off task," i.e., they worry about their performance in relation to others or to some self-determined and unrealistically high measure of success. Overall, there appears to be a strong correlation between anxiety and academic achievement.

Pitts (1969) has taken a biochemical approach to the study of anxiety by looking at blood lactate levels. He demonstrated that patients, diagnosed as suffering from anxiety neurosis, show a rise in blood lactate when placed in stressful situations. Working from the other direction, he was also able to produce symptoms in these subjects by injecting lactate into their blood streams. As further evidence of the correlation, hypertensive patients showed higher levels of blood lactate in a resting state than did patients without hypertension. Finally, Wallace and Benson
(1972) found a correlation between low lactate levels and low blood pressure in a study of persons involved in meditation.

One of the most popular ways of reducing debilitating anxiety is through some form of relaxation training. Training people to relax is approached from many different angles by a variety of different professionals. The same basic physiological response or end result is sought by people teaching cue-controlled relaxation, meditation, hypnosis, systematic desensitization, or applied relaxation. The physiology of the "relaxation response" (Benson, 1975) has been investigated by a number of researchers (Coleman & Swartz, 1976; Reinking and Kohl, 1975; Wallace & Benson, 1972). Typical findings show autonomic responses induced by the relaxation that include the slowing of breathing and heart rate, a marked decrease in the blood-lactate level, a lowering or stabilization of blood pressure, and a decrease in skin conductance. Electroencephalogram recording during relaxation tends toward a steady decrease in the initial beta level and an increase in alpha, and then theta as the training session progresses. The progression halts short of sleep, has a pattern of response to external stimuli similar to waking, and is seldom accompanied by drowsiness.

Although relaxation training has not been applied in a large number of studies directly to groups of low
achievers, it has been used most commonly with persons experiencing various kinds of anxiety (Pitts, 1969). Test anxiety relates so closely with low achievement (Paul & Ericksen, 1964; Sarason, 1963; Speilberger, 1966) that treatment programs designed to upgrade academic achievement most typically include a relaxation training component.

Systematic desensitization is one of the more popular approaches to reducing debilitating levels of anxiety. Its success in treating test anxious persons has been well documented (Allen, 1971, 1972; Emery & Krumboltz, 1967; Johnson & Sechrest, 1968; Osterhouse, 1972; Paul, 1969; Suinn, 1968). To demonstrate effectiveness, the majority of these use self-report measures of anxiety, but occasion­ionally include changes in GPA. Most typically the subject is helped to construct a "fear hierarchy." This is done by breaking anxiety provoking situations down into their component parts and rank ordering them from least to most anxiety provoking. The subject is guided into a deep state of relaxation and asked to imagine each situation, beginning with situations that arouse only mild anxiety and moving up through the scale until all situations can be imagined while remaining calm.

Researchers who have used SD cite its drawbacks. It appears best suited for work with individuals, as hierarchy construction and presentation is most often individualized. Many treatment approaches to low achievement stress a group
approach. Also, Lent (1976) states that many persons have difficulty maintaining vivid visual images of fear-eliciting stimuli, which would work to reduce efficiency.

There are many forms of relaxation training, from transcendental meditation to the extensive use of biofeedback equipment. A recently developed treatment approach aimed at the reduction of anxiety is Cue-Controlled Relaxation (Russell & Sipich, 1973). The procedure involves training clients to reach a state of deep relaxation and then associating this state with a self-pronounced cue-word such as "calm" or "relax." Once the skill is learned, the client has a tool available to him for any situation that is experienced as anxiety provoking.

The procedure was initially tested in a number of case studies (Russell & Sipich, 1973, 1974). It was used to treat test anxiety and found to have beneficial effects. In an effort at strengthening research support Russell, Miller, and June (1974) used the CCR approach with a group of test anxious students. The same group (1975) also compared the approach to SD and a no treatment control group. Results indicated CCR and SD were effective in reducing self-report anxiety when compared to the control group. The authors make a case for the superiority of CCR in treating subjectively experienced test anxiety, since the two techniques seem to be equally effective and CCR does
not require hierarchy construction and presentation, and is therefore somewhat easier to administer.

In a continuing effort at improving treatment approaches to test anxiety, some authors have questioned the narrow focus of "single model" treatments (Allen, 1972; Wine, 1971). They point out that such approaches, e.g., SD, have not consistently improved academic effectiveness, even when self-report anxiety is reduced. There does not seem to be a direct correlation between anxiety and academic achievement. Researchers have moved on to develop more complex theories of low achievement (e.g., Robyak, 1977). Mitchell and Piatkowska (1974), for example, conclude that study habits interact with academic success and anxiety level. The present study included a study skills component in addition to the relaxation training.

In their massive review of literature on underachievement (224 separate studies were reviewed), Mitchell and Piatkowska (1974) state the only characteristics which have experimental evidence to support their relationship with achievement are test anxiety and environmental stresses (noise, sleep deprivation) in study conditions. In addition, study skills and study habits show a strong and consistent relationship with achievement. Mitchell and Piatkowska do mention that there is no reason to assume that any single target behavior (i.e., test anxiety, study habits, environmental stresses) should be the sole
treatment target. Whether or not several target behaviors can be effectively treated simultaneously remains to be established.

**Study Skills Counseling**

Many attempts at understanding low academic achievement consider study skills and habits. Mitchell and Piatkowska (1974), in a comprehensive review of the literature on underachievement, identified a strong and consistent relationship between study skills and habits and achievement. Researchers have identified low achievers as frequently holding negative self-evaluations, lacking persistence and conscientiousness in academic application, setting unrealistic goals or not setting goals at all, and as being highly test anxious (Briggs et al., 1971; DeSena, 1964; Mitchell & Piatkowska, 1974). Treatment approaches designed to deal with this aspect of low achievement take a variety of forms, but, in general, seek to improve study skills and/or application.

Greiner and Karoly (1976) investigated the effects of self-monitoring, self-reward, and systematic planning as components in study activity and academic performance. They found the treatment approach that included all three components to consistently be more effective than the approaches that did not include the planning and/or self-reward and self-monitoring components. The authors stressed the importance of planning as an aid to behavior
control. They suggest that training in planning strategies enhances the self-evaluation process, having an interactive rather than an additive effect on the self-control process.

Mitchell, Hall, and Piatkowska (1975) developed a group program for bright failing underachievers. Their subjects were given structured counseling on academic and vocational goal-setting, course commitment, stressors in study conditions, and academic application. The second component of the program provided desensitization and re-educative training for various combinations of test and academic anxiety and study habits and skills. They reported that of the subjects treated, 88 percent passed course examinations after treatment, and two years later 63 percent were still succeeding.

Weigel and Weigel (1967) took a somewhat different, but related, approach in trying to understand the study skills component of low achievement. By investigating the assumption that students must be taught effective study skills, they found that students have an adequate knowledge of study skills, but do not apply them in a consistent manner. They concluded that the widespread development of study skills courses focusing on the acquisition of study skills was inappropriate. They contend that the focus should be on maximizing the use of effective study skills.
The question of academic application has been studied by a number of other researchers. DeSena (1964) concluded that low achievers lacked persistence and conscientiousness in study, manifested in low attendance at classes and a low amount of time in private study. Topkin (1967) suggests, on the other hand, that overachievers are persistent, conscientious, and committed to their academic work.

Bednar and Weinberg (1970) reviewed 23 studies that evaluated the effectiveness of various treatment programs for low achieving college students. All 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 results of the survey indicate that the treatment programs associated with improved student academic performance were characterized as (a) structured rather than unstructured, (b) lengthy rather than brief, (c) counseling aimed at the dynamics of low achievement 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. So even when a broader focus is taken in trying to understand low achievement and a counseling approach is used, study skills counseling shows itself to be beneficial.
CHAPTER III

METHODOLOGY

This chapter will describe the research methodology and statistical procedures used in this study. The chapter will provide sections related to the selection of instruments, sample selection, therapists, design, treatments, statistical procedures, and a general chapter summary.

A $4 \times 2 \times 3$ factorial design with four levels of treatments, two therapists, and three repeated measures, was used in the investigation of the effects of Rational Stage Directed Imagery on the performance of university low achievers. It was necessary to use a $4 \times 2 \times 2$ factorial design in analyzing data relative to GPA, since it was not possible to do post test II testing. More specifically, this study was conducted to determine the efficacy of RSDI in improving the functioning of academic low achievers as measured by Ss scores on the State-Trait Anxiety Inventory (STAI), Tennessee Self-Concept Scale (TSCS), Personal Beliefs Inventory (PBI), Survey of Study Habits and Attitudes (SSHA), and grade point average (GPA).

The design included three treatment groups and one active control group. The treatment groups were Rational Stage Directed Imagery (RSDI), Cognitive Restructuring (CR),
and Relaxation (TR). The active control group consisted of exposure to very basic study guidelines. All groups were exposed to the same study skills guidelines.

The dependent measures for this study were pre, post and follow-up measures on the (a) **State-Trait Anxiety Inventory (STAI)**, (b) **Tennessee Self-Concept Scale (TSCS)**, (c) **Personal Beliefs Inventory (PBI)**, and (d) **Survey of Habits and Attitudes (SSHA)**. Grade point average (GPA) was examined pre and post. Pre-treatment measures were obtained one week prior to the beginning of treatment. Post-treatment measures were attained after six weeks of treatment. Follow-up measures were obtained five weeks after the last session. Grades were examined at the end of the treatment quarter.

**Instruments**

**The State-Trait Anxiety Inventory (STAI)**

STAI (Spielberger, Gorsuch, and Lushene, 1969) consists of two separate self-report scales that measure state anxiety (A-State) and trait anxiety (A-Trait). The instrument was developed as a research instrument for measurement of anxiety with non-psychiatrically disturbed adults. The STAI A-Trait scale consists of 20 statements that ask people to describe generally how they feel. The A-State scale also consists of 20 statements that ask people how they feel at a particular moment in time (See Appendix A for the STAI).
State Anxiety (A-State) is defined as:

a transitory emotional state or condition of the human organism that is characterized by subjective consciously perceived feelings of tension and apprehension, and heightened autonomic nervous system activity (Spielberger et al., 1969).

Trait Anxiety (A-Trait) refers to:

relatively stable individual differences in anxiety proneness; that is, to differences between people in the tendency to respond to situations perceived as threatening with elevations in A-State intensity.

The range of possible scores for the STAI varies from a minimum score of 20 to a maximum score of 80 on both the A-State and A-Trait subscales. Subjects respond to each item by rating themselves on a four-point scale. The four categories for A-State are: (a) not at all, (b) somewhat, (c) often, and (d) almost always. Some of the items are worded in such a manner that a rating of "4" indicates a high level of anxiety, while on others, a rating of "4" indicates a low level of anxiety. A scoring procedure has been worked out so that for items on which a high rating indicates low anxiety, the scoring weights are reversed.

To reduce the potential influence of acquiescence set, the A-State scale has 10 directly scored items and 10 reversed items. The A-Trait scale has seven reversed items and 13 directly scored items.
Five of the items on the STAI are used in both scales with three being worded exactly the same and two containing the same key terms. The remaining 15 items on each scale are significantly different in content to be regarded as independent items (Spielberger et al., 1969).

Test-retest reliability for the A-Trait Scale is rather high, ranging from .73 to .86 for periods of up to 104 days. The reliability coefficients for the A-State scale were low, with a median $r$ of only .32. This was expected, as A-State should be sensitive enough to the influence of unique situational factors. With this transitory nature of anxiety, internal consistency would seem to be a more meaningful measure of the reliability of the A-State scales. The K-R coefficient ranged from .83 to .92 for A-State, which is relatively high.

Evidence for the concurrent validity of the A-Trait scale is shown by a correlation of .80 with the IPAT Anxiety Scale and the Taylor Manifest Anxiety Scale (TMAS) (Spielberger, 1969). Both the IPAT and the TMAS are supposed to be measures of A-Trait Anxiety. Spielberger has concluded that all three of these scales can be considered A-Trait measures.

The evidence to indicate the construct validity of the A-State scale has been summarized by Spielberger et al., (1969). The A-State scale was administered in a single testing session to 197 undergraduate students under four
different conditions. The first administration occurred at the beginning of the testing session (Normal Condition). The second administration of the scale followed a 10-minute period of relaxation training (Relax Condition). The third administration followed a 10-minute period in which the Ss worked on the Terman Concept Mastery Test, which was presented as a "relatively easy I.Q. test" (Exam Condition). The final administration followed immediately after the Ss viewed a stressful movie (Movie Condition) depicting several accidents in a woodworking shop.

The mean score for the A-State was lowest in the Relax Condition and highest after the Ss viewed the stressful film. In the Normal and Exam Conditions the scores were approximately the same for males and females, indicating that these conditions had a similar impact on both sexes. The Movie Condition was particularly upsetting for the females, whereas the Relax Condition seemed most effective in reducing their emotional intensity. This condition suggests that the A-State scale is a sensitive measure of anxiety occurring under differing stimuli conditions and also suggests that females are more emotionally liable than males and/or that they are willing to report their feelings.
The Personal Beliefs Inventory (PBI)

The Personal Beliefs Inventory (PBI) (Hartman, 1968) is a 60-item, self-administered, objectively scored, six-point rating scale (ranging from totally agree to totally disagree) for assessing specific levels of irrational thinking. (See Appendix B for the PBI.) Item selection (from a pool of 135 items) was based on item-total mean-score correlations in a sample of 500 college students. The PBI was then given to one group of 30 college students and readministered five days later. Analysis of scores yielded a test-retest reliability coefficient of .89 and a split half reliability of .95. Analysis of scores, after one week, of another group of 85 college students, yielded a test-retest reliability coefficient of .91 and a split half reliability of .90. Hartman (1968) obtained the mean scores on the PBI of a sample of eight patients before and after undergoing 10 sessions of Rational Emotive Therapy and of a sample of 23 students in a psychopathology class which emphasized rational-emotive principles. The difference in pre-post treatment mean scores of the two groups was impressive, but no test of significant differences is reported. Hartman stated his findings "have empirically shown the PBI to possess a high level of validity and reliability to be extremely sensitive to irrational thinking."
A recent study of Goldfried and Sobocinski (1975) found a positive relationship between the extent to which individuals held irrational beliefs and their scores on measures of test anxiety. It was also found that the Ss tendency to view situations irrationally was related to the Ss susceptibility to emotional upset in situations related to such expectations.

Tosi and Eshbaugh (1975) examined the construct validity of the PBI through a factor analytic study. As hypothesized, the hierarchical factor analysis revealed a general factor suggesting a basic or generalized attitude involving self-worth. This analysis supported Hartman's idea that the PBI is a general measure of irrationality. In addition, two second-level and four third-level factors were found. The second-level factors were depression and cognitive rigidity, while the third-level factors were associated with (a) achievement, (b) delay of gratification, (c) moral control, and (d) moral shame and guilt.

The PBI is a quick and easy instrument to administer and score and gives a general measure of irrationality. It also shows evidence of reliability and construct validity.

Survey of Study Habits and Attitudes

Survey of Study Habits and Attitudes (SSHA) (Brown and Holtzman, 1967). The SSHA, intended to measure "non-intellective" components of academic success, is typified
by items such as, "My studying is done in a random, un­planned manner—is impelled mostly by the demands of approaching classes." Subjects indicate their study behaviors on 100 statements on a five-point scale ranging from "Rarely" to "Almost Always." (See Appendix C for the SSHA.)

Brown and Holtzman (1967) report test-retest reliability coefficients for four- and 14-week intervals. Over four weeks, reliability coefficients were .93, .91, .88, and .90 respectively for the Delay Avoidance, Work Methods, Teacher Approval, and Education Acceptance scales that constitute the composite Study Orientation score. The corresponding coefficients for the 14-week interval were .88, .86, .83, and .85, respectively. In addition, the internal consistency measure of the SSHA was computed, using the Kuder-Richardson Formula 8 for estimating test reliability from the variance of total scores and the sum of the item variances. For 465 freshman tested, reliability coefficients obtained for the four subscales ranged from .87 to .89.

The authors report that the SSHA correlates significantly with grade point average. For 1,772 cases analyzed in six colleges, validity coefficients varied from .25 to .45 with a weighted average of .36. Coefficients of correlation were compared between the Study Orientation scores and scholastic aptitude test total scores, as well as
between test scores and grade point average for all students. The correlation between the SSHA and measured scholastic aptitude is consistently low, thus suggesting that the SSHA measures traits that play an important role in academic achievement, with only one subscale, Work Methods, being appreciably related to measured scholastic aptitude.

Tennessee Self-Concept Scale (TSCS)

The TSCS Manual (Fitts, 1965) describes the scale and the computation and interpretation of its various scores. A description of the development of the instrument is included and data are presented regarding the reliability of scores, intercorrelations of scores, and validity data.

The TSCS consists of 100 self-descriptive statements to which the subject responds on a five-point response scale ranging from "completely true" to "completely false." Ten of the items on the scale came from the MMPI L-Scale and constitute the Self-Criticism Score—a measure of overt defensiveness. The other 90 items were drawn from a large pool of self-descriptive statements. The original criterion for selection was agreement by seven clinical psychologists as to the classification of the items on the basis of their content.

The overall self-concept is reflected in the Total Positive score, which is indicative of a person's general
level of esteem. The TSCS Total P score evolves from a 3 x 5 matrix of subscores which are explained as follows:

The rows are concerned with how the individual describes himself from an internal frame of reference. Row 1 represents his basic Identity or "what he is," as he perceives himself at the most basic level. Row 2 gives a measure of Self-Satisfaction or how the individual accepts himself. Row 3 deals with the subject's perception of his own behavior. The three rows then may be seen focusing on: (a) "What he is," (b) "How he feels about himself," (c) "What he does" (Hamner and Fitts, 1968).

The five columns deal with the external frame of reference the individual uses to describe himself:

Column A: Physical Self--The physical attributes or functioning, sexuality, stage of health or appearance.

Column B: Moral-Ethical Self--Moral, ethical, and religious aspects of the self.

Column C: Personal Self--Personal worth or adequacy, self-respect, and self-confidence.

Column D: Family Self--The individual's relationship with his primary group (family and close friends) and his sense of adequacy as a family member.

Column E: Social Self--The individual's sense of adequacy or worth in relationships with people or society in general. (Fitts, et al., 1971).

This 3 x 5 grid results in 15 intersecting categories (e.g., Identity--Physical Self or Behavior--Family Self)
within which there are an equal number of positive and negative items.

The norms for the TSCS were obtained from a broad sample of 626 people from various parts of the country, including males and females, in age ranges 12 to 68. They are representative of all social, economic, intellectual, and educational levels from sixth grade through the Ph.D. degree (Fitts, 1965). However, the norms are over-represented in the 12 to 30 year age bracket, in number of college students and white subjects. Fitts (1965) reported that the evidence gathered suggested that there was no need to establish separate norms by age, sex, race, or other variables.

The TSCS is applicable across the range of psychological adjustment from healthy, well-adjusted people to psychotic patients. The TSCS is self-administering for either individuals or groups and may be used with subjects age 12 or older and having at least a sixth grade reading level.

The test-retest reliability co-efficient of all major scores ranges from .60 to .92 with an average of .80 (Fitts, 1965); they are reported below. The validation procedures (Manual, Fitts, 1965) included: (a) content validity, (b) discrimination between groups, (c) correlation with other personality measures, and (d) personality
changes under particular conditions. A more detailed discussion of the instrument's validity and applicability has already been presented in Chapter II. (See Appendix D for TSC.)

**Grade Point Average (GPA)**

The cumulative GPA of each subject was collected prior to treatment as a performance measure indicating academic achievement. Grades were measured again at the end of Spring Quarter, 1978. Subjects' grades were obtained through the Registrar and reflected academic performance during the quarter in which the subjects participated in the program.

**Subjects**

At the end of Winter Quarter, 1977 (September) the investigator met with the entire academic advisement staff of the University College of The Ohio State University. The staff is responsible for providing academic advisement to all students who have not yet been accepted into a major program of study (i.e., practically the entire freshman and sophomore class). The program's goals and methods were explained and accepted by advising staff. During Spring Quarter (1978) registration for all OSU students enrolled in the University College (UVC is the scholastic category used for all students who have not yet been accepted to a separate university college) and having significant academic difficulty (i.e., were on academic
warning or probation) were told of the program to assist students in academic difficulty with study and test taking problems. No mention of a specific treatment method was made at any time during the experiment. Table 1 contains a descriptive analysis of the subjects who participated in the study.

**TABLE 1**

DESCRIPTIVE ANALYSIS OF THE SUBJECTS

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</tbody>
</table>

The program was submitted and approved as a temporary course and was offered for three credit hours within the college of education. The class met for one and one-half hours twice each week for the first half of spring quarter, 1978. There were eight separate classes offered; two for each level of treatment. Interested students signed up
for the course on a voluntary basis, selecting a particular course meeting time according to personal preference. During the first scheduled meeting the program was explained and pre testing completed. Over the next four and one-half weeks the total treatment package was delivered (See Appendices E - H). During the last meeting of the fifth week, post testing I was completed. The class did not meet during the second half of the quarter. Post testing II was completed during finals week.

Therapists

The therapists providing the treatment were two advanced doctoral students in Counselor Education at The Ohio State University. The ages of the therapists were 28 and 30. One of the therapists had completed an internship in community counseling, and was employed as an outpatient counselor in a drug rehabilitation facility, while the other had been employed as an academic advisor for two years. Both had considerable training in cognitive behavior and sensory-imagery counseling techniques, and were particularly familiar with the treatment package being offered. In addition, both therapists had previous teaching experience and were quite familiar with group work.

Design of the Study

A 4 x 2 x 3 factorial design with one within-subjects variable (three levels of a repeated measure) and two between-subjects variables (therapists and treatments) was
used in analyzing the data (see Figure 1). All Ss assigned themselves to treatment groups by signing up for the course, on a first come, first serve basis. Each S participated in 10 treatment sessions lasting approximately 90 minutes in length over a five-week period. All Ss received all pre, post, and follow-up tests.

Follow-up Testing

Five weeks after the post-assessment, all post-assessment measures were re-administered to all Ss as a follow-up measure. The follow-up assessment coincided with the end of the Spring Quarter, 1978. Results from this testing should thus indicate how the Ss felt about themselves and their performance at a time when they were experiencing academic pressure.

Treatments

Rational Stage Directed Imagery (RSDI)

The treatment package used in this study was derived from a procedure developed by Tosi (1974) and Tosi and Marzella (1975). RSDI is an integration of Rational Emotive Therapy, guided imagery, and the growth stages of awareness, exploration, commitment to rational action, implementation, internalization, and change or redirection. In addition Ss were exposed to a standard study skills approach to improving academic performance. The specific treatment followed procedures outlined in Tosi and Marzella (1975) and dissertation studies conducted by Marzella
FACTORIAL DESIGN

FIGURE 1
(1975), Reardon (1976), Boutin (1976), and Howard (1978) under the supervision of Dr. Donald Tosi. The method of therapy in this study closely resembled the above-mentioned treatments, but was specifically designed to address the problems encountered by the client group studied.

The specific objectives for this treatment group included:

1. To help Ss identify facets of their academic life that contributed to low achievement, e.g., anxiety in test taking situations and avoidance of appropriate study behaviors.

2. To make Ss aware of the thoughts, self-verbalizations, and beliefs that were activated in the above identified situations.

3. To help subjects become aware of the self-defeating and irrational nature of such beliefs, self-verbalizations, and thoughts.

4. To teach Ss to challenge and confront the validity of these self-defeating self-verbalizations and to substitute more self-enhancing ways of thinking.

5. To help Ss become aware of deficiencies in study habits and attitudes and begin remediating these deficiencies with more appropriate behaviors.
The first four objectives were carried out by teaching the Ss the rudiments of RET. To facilitate this process, each S worked with a Self-Directed Behavior Change Instrument (Tosi, 1973, See Appendix I), which directed them through a rational self-analysis in each area that appeared to be contributing to low academic performance.

The problematic situations generally fell into three areas: (a) test taking behaviors, (b) studying behaviors, and (c) attending class behaviors. Each S was helped to reach a deep state of relaxation and then to visualize himself in the previously identified problematic situations. Once the Ss had accomplished this, they were asked to become aware of the undesirable emotional response and self-defeating thoughts that accompanied the imagery. The Ss were then directed to challenge and confront the irrational beliefs and self-talk and taught to substitute more rational thinking. The Ss completed this process for each of the three general areas and were guided through all six stages of experiencing (awareness, exploration, commitment to rational action, implementation, internalization and change). The Ss were encouraged to practice rational thinking in these problematic situations throughout the week as the situations presented themselves.

The imagery is expected to intensify the experiential component of the treatment intervention and the rational restructuring process, allowing it to become more fully
utilized and thus hasten the implementation and internalization of more rational and self-enhancing thinking, feeling, and acting. (See Appendix E for RSDI treatment plan, Appendix J for a sample session, and Appendix K for relaxation protocol.)

Maultsby (1971) suggests that the use of imagery can facilitate the learning of any new behavior. We learn a behavior by thinking about it and thus we can translate it into actual behavior. Tosi (1974) also suggests that the overall emotional effect of real or imagined stimuli are qualitatively the same. Therefore the client can learn to substitute more desirable thoughts, feelings, and behaviors for undesirable ones via imagery.

Cognitive Restructuring (CR)

Cognitive Restructuring is an intervention designed to help people develop and use their thinking more effectively in dealing with maladaptive emotional, physiological, and behavioral states. It is an attempt at restructuring a person's method of appraising situations and events from one typified by catastrophizing and overgeneralizing to a more rational, realistic, and adaptive way of appraising situations. CR is very similar to RSDI except that there is no imagery and/or visualization used. It is based on RET and makes use of the same stages of experiencing. Again, this group received the standard study skills input in an attempt at remediating any severe deficits.
The specific objectives for this treatment group included:

1. To help Ss identify facets of their academic life that contributed to low achievement, e.g., anxiety in test taking situations and avoidance of appropriate study behaviors.

2. To make Ss aware of the thoughts, self-verbalizations, and beliefs that were activated in the above identified situations.

3. To help subjects become aware of the self-defeating and irrational nature of such beliefs, self-verbalizations, and thoughts.

4. To teach Ss to challenge and confront the validity of these self-defeating self-verbalizations and to substitute more self-enhancing ways of thinking.

5. To help Ss become aware of deficiencies in study habits and attitudes and begin remediating these deficiencies with more appropriate behaviors.

The CR intervention began by teaching the essence of RET in a group discussion setting. Ellis's ABC model (1962) was used to introduce the Ss to the idea of cognitive control over thoughts, feelings, and actions. From an educational/didactic perspective, the Ss were taught that they, and not their environment, were responsible for
the way they felt and behaved. Once the Ss understood the basic philosophy of RET, they were asked to identify situations or events from their experience at the university that had previously been or continued to be problematic. Most often these situations fell into one of three categories; (a) test taking behaviors, (b) class attending behaviors; or (c) studying behaviors. Within the group setting the content of each problematic situation was analyzed a la RET. The Ss received training and practice in identifying the irrational beliefs that led to undesirable emotions and/or self-defeating behavior within the previously identified academic situations.

Following this segment, the Ss were introduced to the concept of restructuring, i.e. challenging, refuting, and replacing irrational beliefs. Tosi's **Self-Directed Behavior Change Instrument** (1973) was used to facilitate this process. The Ss were not in possession of a technique that they could use to help them analyze and reconstruct irrational, self-defeating situations. The instrument is designed to help the Ss identify emotionally disturbing situations, irrational ideation, and finally to provide a framework for restructuring around more rational thinking and acting.

The entire process was ordered around the growth stages of awareness, exploration, commitment, internalization, integration, and change. For example, during the
first session the Ss were assisted in becoming aware of the irrational beliefs that caused undesirable emotions and/or self-defeating behaviors. The remaining five stages were dealt with in a similar fashion (please refer to page 76 for a description of each stage.

In an effort to reinforce the new learnings, homework assignments were given using Tosi's SDBCI. The Ss were asked to identify three problematic situations each week and use the behavior change instrument to analyze and reconstruct the situation. These were discussed and corrections made on a weekly basis. Again, all Ss received study skills input to remediate any severe deficits (see Appendix H for study skills and Appendix F for CR treatment plan).

Relaxation Training (RT)

This procedure included a relatively simple form of relaxation training which made use of deep, diaphragmatic breathing, progressive muscle relaxation via imagery—e.g., imagine the muscles in your forehead becoming very relaxed, and imagery—e.g., having Ss imagine themselves being on a beach listening to the rhythmic sound of the waves lapping on the shore. The relaxation training was taught as an active coping skill that the Ss could apply to their academic behaviors such as test taking and studying. It is simple and effective in controlling excessive and debilitating physiological arousal. (See
Appendix G for RT procedure). Again, all Ss received study skills input to remediate severe deficits.

The specific objectives for this treatment group included:

1. Teaching Ss a method for managing debilitating anxiety.
2. Making Ss aware of appropriate and efficient study habits and attitudes.

**Study Skills Counseling (SSC)**

This procedure is an integration of group counseling approaches emphasizing personal sharing, goal setting, time economy awareness, appropriate note taking, studying behaviors, test taking behaviors, and decision making. (See Appendices H and L through P for detailed description of procedure). The Ss were exposed to a different facet of "study skills, habits, and attitudes" each session. They were given homework assignments which required them to implement the new skills, and discussed, as a group, the individual problems that arose during implementation. This treatment approach was duplicated in each of the other treatment approaches and served as an active control. A no treatment control group was considered unethical due to the fact that each S was currently in very serious academic difficulty.

Other studies using a very similar treatment package have had the opportunity to use a no treatment control
group (Boutin, 1976; Reardon, 1976; Decker, 1977). In each study the active treatment approaches have proven to be significantly more effective than the control groups, lending support to the current study's use of an active control.

The specific objectives for this treatment group included:

1. Making Ss aware of effective study habits and skills.
2. Providing Ss with an opportunity to discuss their academic situation in a group of peers.

**Statistics**

Data collected in this study were analyzed using a 4 x 2 x 3 Multivariate Analysis of Co-Variance (Poor, 1973). The standard discriminant function analysis method of follow-up was used to compare all possible combinations of means following significant F ratios for main effects and interactions (Tatsuoka, 1970). In addition, univariate F tests were done on each dependent variable for each factor.

**Summary**

Chapter III has presented the procedures and methodology of the study. It contains a description of the sample, a descriptive analysis of the Ss, the pre, post and follow-up measures, therapists, design of the study, treatments, and statistical analysis of the data.
CHAPTER IV
ANALYSIS OF DATA

This chapter will present the analysis of data. The data will be analyzed in relation to the hypotheses set forth in Chapter I. Basically, the study is concerned with comparing the relative effects of Rational Stage Directed Imagery (RSDI), Cognitive Restructuring (CR), Relaxation Training (RT), and Study Skills Counseling (SSC) upon self-concept as measured by the Tennessee Self-Concept Scale, state and trait anxiety as measured by the State-Trait Anxiety Inventory, rational thinking as measured by the Personal Beliefs Inventory, study habits and attitudes as measured by the Survey of Study Habits and Attitudes, and academic achievement as measured by grade point average.

The study included two statistical designs. A 4 x 2 x 3 factorial design (Kennedy, 1978) was used to measure self-concept, anxiety, rationality, and study skills. A 4 x 2 x 2 factional design was used to assess academic performance. Time restraints did not allow for Post II testing to be done on GPA.

The statistical design involved performing a multivariate analysis of covariance (MANCOVA) using all six pre-tests as covariates (TSC, PBI, STAI-STATE, STAI-TRAIT,
SSHA, and GPA). The CANOVA program (Poor, 1973), which is an adaptation based on the multivariate analysis of variance (MANCOVA) program (Clyde, 1969), was used to perform the statistical computations. CANOVA performs univariate and multivariate analysis of variance based on a least squares solution (linear model). The multivariate F ratios are approximate F ratios obtained by RAO's approximation based on Wilk's Lambda criterion. The multivariate tests of significance using Wilk's Lambda criterion were non-significant, which is empirical support for the homogeneity of covariance assumption.

The statistical package, MANCOVA, analyzed the raw data, making adjustments for initial differences that existed between treatment groups. Table 2 provides adjusted means and standard deviations for all treatment groups on the first five dependent variables (TSC, PBI, STAI-S, STAI-T, and SSHA).

The statistical design involved performing a MANCOVA on the interaction effects between therapists and groups. Next, main effect for groups was examined. Where significant results were obtained, three planned comparisons were performed (RSDI vs. CR + RT + SSC; CR vs. RT + SSC; and RT vs. SSC). Where significant differences existed, Dunn's Post Hoc Test was used to make all possible pairwise comparisons among the individual groups (RSDI vs. CR; RSDI vs. RT; RSDI vs. SSC; CR vs. RT; CR vs. SSC; and
## Table 2

Adjustment Mean and Standard Deviation Post Test I and Post Test II Scores on Each of the Five Dependent Measures

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<thead>
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<th>Post II</th>
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<tr>
<td>CR</td>
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<tr>
<td>RT</td>
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</tr>
<tr>
<td>SSC</td>
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<td>363.12</td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>RSDI</td>
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</tr>
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<tr>
<td>RT</td>
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</tr>
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</tr>
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</tr>
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</tr>
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<td>SSC</td>
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RT vs. SSC). Next, interactional effects for the repeated measures was examined; the interaction of groups and therapists over time. The group x time and the therapist x time interactional effect was also analyzed. Following this, the main effect for groups was examined, and, where significant, the same three planned comparisons were made (RSDI vs. CR + RT + SSC; CR vs. RT + SSC; and RT vs. SSC). If significant, Dunn's Post Hoc pairwise planned comparisons were made among the individual groups (RSDI vs. CR; RSDI vs. RT; RSDI vs. SSC; CR vs. RT; CR vs. SSC; and RT vs. SSC).

No significant differences were detected using the MANCOVA for the interactional effect between groups and therapists. There was also no significant difference detected for therapist main effect, suggesting that the two were equivalent. The main effect for groups on the
multivariate measure was significant (F = 2.19, p < .05). Univariate testing was done on each of the five dependent variables (TSC, PBI, STAI-S, STAI-T, and SSHA). There were significant differences on the PBI and the STAI-S (PBI: F = 3.24, p < .05; STAI-S: F = 4.62, p < .01). The SSHA demonstrated a trend toward significance (F = 2.29; P = .084).

The three planned multivariate comparisons were made. RSDI vs. CR + RT + SSC demonstrated significance (F = 2.84; p < .05). Follow-up univariate testing on the individual dependent variables showed the STAI-S to be significant (F = 8.12; p < .01). The CR vs. RT + SSC multivariate comparison approached significance (F = 2.22; p = .059), with the univariate follow-up test for the PBI being significant (F = 7.44; p < .01). Multivariate comparison on RT vs. SSC was not significant. (See Table 3 for the multivariate data and Table 4 and Figures 2 and 3 for the univariate data).

Where the univariate tests were significant, Dunn's Post Hoc test was used to make all possible pairwise comparisons. For the STAI-S univariate follow-up, RSDI proved to be significantly different from the SSC group (F = 2.81; p < .05). All other comparisons were non-significant. Following up on the significant PBI univariate test data, significance was detected on three comparisons, CR vs. RSDI (F = 2.70; p < .05), CR vs. RT (F = 3.11; p < .05), and CR vs. SSC (F = 2.87; p < .05). All other comparisons were non-significant.
## TABLE 3

**MULTIVARIATE TEST**

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<td>.54</td>
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T = trend
* = p < .05
** = p < .01
*** = p < .001
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TABLE 4 (Continued)

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</table>
UNIVARIATE
POST TEST I
STAI-S

FIGURE 3
The MANCOVA was also used to examine possible effects over time (post test I to post test II) for group, therapist, and therapist x group interaction. All multivariate and univariate results were non-significant. (See Table 5 for multivariate data and Table 6 for univariate data).

**TABLE 5**

**MANCOVA MULTIVARIATE DATA**

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<td>Time x Group</td>
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<td>0.81</td>
</tr>
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<td>2 vs. 3 + 4</td>
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<td>1</td>
<td>511.73</td>
<td>2.73</td>
</tr>
<tr>
<td>3 vs. 4</td>
<td>1</td>
<td>523.90</td>
<td>2.80</td>
</tr>
<tr>
<td>Time x Therapist</td>
<td>1</td>
<td>5.86</td>
<td>0.03</td>
</tr>
<tr>
<td>Time x Group x Therapist</td>
<td>3</td>
<td>105.06</td>
<td>.56</td>
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<tr>
<td>Regression</td>
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</tr>
<tr>
<td>Error</td>
<td>88</td>
<td>187.41</td>
<td>121.63</td>
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### TABLE 6 (Continued)

<table>
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<th>Repeated Measures</th>
<th>Source</th>
<th>df</th>
<th>STAI-TRAIT MS</th>
<th>F</th>
<th>SSFA MS</th>
<th>F</th>
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<td></td>
<td>Time</td>
<td>1</td>
<td>3.32</td>
<td>.09</td>
<td>1379.25</td>
<td>.68</td>
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<tr>
<td></td>
<td>Time x Group</td>
<td>3</td>
<td>9.56</td>
<td>0.26</td>
<td>106.75</td>
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<td></td>
<td>1 vs. 2 + 3 + 4</td>
<td>1</td>
<td>0.93</td>
<td>0.03</td>
<td>205.19</td>
<td>0.10</td>
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<td></td>
<td>2 vs. 3 + 4</td>
<td>1</td>
<td>2.69</td>
<td>0.07</td>
<td>3140.63</td>
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<td></td>
<td>3 vs. 4</td>
<td>1</td>
<td>25.22</td>
<td>0.68</td>
<td>0.38</td>
<td>0.00</td>
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<td></td>
<td>Time x Therapist</td>
<td>1</td>
<td>4.47</td>
<td>0.12</td>
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<td>Time x Group x Therapist</td>
<td>3</td>
<td>37.28</td>
<td>1.01</td>
<td>2668.96</td>
<td>1.32</td>
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<td></td>
<td>Regression</td>
<td>5</td>
<td>23.18</td>
<td>.63</td>
<td>1619.86</td>
<td>.80</td>
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<td></td>
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<td>88</td>
<td>36.88</td>
<td>.63</td>
<td>2023.51</td>
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An analysis of covariance (ANCOVA) was used to evaluate the last dependent variable, grade point average (GPA). All pre-test scores were used as covariates and GPA post-test scores were used as the criterion measure. The test of equality of regression in all cells was non-significant, which lends empirical support for the homogeneity of covariance assumption. The statistical program examined the group by therapist interaction, and the main effect for therapists and groups. Where significance among groups was detected, three planned comparisons were made (RSDI vs. CR + RT + SSC; CR vs. RT + SSC; and RT vs. SSC). Dunn's Post Hoc test was used to make all possible pairwise comparisons where the above mentioned comparisons were significant.

The groups x therapist interact was non-significant. Main effect for therapists was non-significant. Main effect for groups was significant (F = 3.63; p < .05). The planned comparisons showed the RSDI vs. CR + RT + SSC to be significant (F = 10.59; p < .05). The two other planned comparisons (CR vs. RT + SSC and RT vs. SSC) were non-significant. Dunn's test was used to make all planned pairwise comparisons, but no significant differences were detected. (See Table 7 and Figure 4 for ANCOVA data).

In conclusion, the RSDI group showed significance in comparison to the CR + RT + SSC groups on the five dependent measures (TSC, PBI, STAI-S, STAI-T, and SSHA), when
**TABLE 7**

ANCOVA GPA—ALL PRE TESTS AS COVARIATES

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<tr>
<th></th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P</th>
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<tbody>
<tr>
<td>G</td>
<td>5.89</td>
<td>3</td>
<td>1.963</td>
<td>3.634</td>
<td>0.016*</td>
</tr>
<tr>
<td>G1</td>
<td>5.717</td>
<td>1</td>
<td>5.717</td>
<td>10.585</td>
<td>0.002**</td>
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<tr>
<td>G2</td>
<td>0.034</td>
<td>1</td>
<td>0.034</td>
<td>0.064</td>
<td>0.801</td>
</tr>
<tr>
<td>G3</td>
<td>0.046</td>
<td>1</td>
<td>0.046</td>
<td>0.085</td>
<td>0.771</td>
</tr>
<tr>
<td>T</td>
<td>0.010</td>
<td>1</td>
<td>0.010</td>
<td>0.018</td>
<td>0.892</td>
</tr>
<tr>
<td>TG</td>
<td>4.329</td>
<td>3</td>
<td>1.443</td>
<td>2.672</td>
<td>0.052</td>
</tr>
<tr>
<td>Within cells</td>
<td>46.988</td>
<td>87</td>
<td>0.540</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>6.532</td>
<td>6</td>
<td>1.089</td>
<td>2.016</td>
<td>0.072</td>
</tr>
</tbody>
</table>

*p < .05
**p < .01
***p < .001
FIGURE 4

ANCOVA
GPA

2.50
2.45
2.40
2.35
2.30
2.25
2.20
2.15
2.10
2.05
2.00
1.95
1.90
1.85
1.80

RSDI    CR    RT    SSC
analyzed in aggregate form (MANCOVA), both the therapist main effect and the therapist x group interaction effects were non-significant. Univariate testing revealed significance for the RSDI group on the STAI-S and for the CR group on the PBI. Pairwise comparisons, using Dunn's Post Hoc test on the STAI-S, showed the RSDI group to be significantly different from the SSA group. A similar comparison on the PBI demonstrated the CR group to be significantly different from each of the other three. Changes over time for group, therapist, and therapist x group interaction, were non-significant. In examining GPA, the RSDI vs. CR + RT + SSC comparison was significant. Follow-up testing using Dunn's Post Hoc test did not reveal significance. All other effects for GPA were non-significant (group, therapist, therapist x group, CR vs. RT + SSC, and RT vs. SSC).
CHAPTER V

SUMMARY AND CONCLUSIONS

This investigation studies the effects of Rational Stage Directed Imagery (RSDI), Cognitive Restructuring (CR), Relaxation Training (RT), and Study Skills Counseling (SSC) on self-concept, state and trait anxiety, rationality, study skills, habits and attitudes, and academic performance. The total positive score of the Tennessee Self-Concept Scale was used to measure self-concept. The State-Trait Anxiety Inventory was used to measure anxiety. The state anxiety score reflected degree of anxiety over taking a mid-term exam. The Personal Beliefs Inventory was used to measure rational vs. irrational thinking as defined by Albert Ellis in his Rational Emotive approach to therapy. The Survey of Study Habits and Attitudes was used to measure study habits and attitudes. And grade point average was examined to evaluate academic performance.

One hundred one Ohio State University undergraduate students signed up for the study and received three quarter hours of credit for completing the course. There were eight groups (two separate groups of each treatment approach) available from which students could choose. Therapists were randomly assigned to the treatment groups.
There were two designs used in the study. A 4 x 2 x 3 factorial design was used with all measures except academic performance. There were two factors involved. The first factor was treatment approach and included four levels: RSDI, CR, RT, and SSC. The second factor was therapist and included two levels. The repeated measures included pre-test, post test I, and post test II. The statistical analysis involved a multivariate analysis of covariance (MANCOVA) using the CANOVA program which is based on the MANOVA program. The statistical package examined main effects for factors one and two, as well as interactional effects. Where appropriate, the analysis was broken down into planned comparisons of factor one.

The null hypothesis for this study was that means representing self-concept, rational thinking, anxiety, study habits, and academic performance from the treatment conditions (RSDI, CR, RT, SSC) would not differ significantly across pre, post I, and post II measurements. The alternative hypothesis was that means representing these dependent variables will be superior for the RSDI group as compared to the CR, RT, and SSC groups across the pre, post I, and post II measurements. The MANCOVA program, using all pre-tests as covariates, adjusts for initial differences between groups.
Using this statistical package, there were no significant differences for therapists' main effects, suggesting that they performed in an equivalent fashion.

There was a significant difference for groups' main effects. Follow-up planned comparisons at the multivariate level showed the RSDI group to be significantly different from CR + RT + SSC. Univariate testing of each dependent measure revealed significance on the STAI-S and a trend toward significance on the PBI. Using Dunn's test, post hoc testing on all pairwise comparisons showed RSDI to be significantly different from the SSC group. The CR vs. RT + SSC and RT vs. SSC comparisons were not significant, although the CR vs. RT + SSC approached significance. Follow-up planned comparisons showed the RSDI group to be significantly different from CR + RT + SSC.

The CR vs. RT + SSC and RT vs. SSC comparisons were not significant, although the CR vs. RT + SSC approached significance. The therapist by group interaction was also non-significant.

Looking at effects over time, all statistical procedures turned out to be non-significant, suggesting that the group did not differ from post test I to post test II. This suggests that the differences that were found at post test I held up over time; i.e., the RSDI group maintained its superiority. Univariate testing on each dependent measure for the CR group showed significance on the PBI.
with a trend on the SSHA. Using Dunn's test to make pairwise comparisons showed the CR group to be significantly different than each of the other three groups on the PBI.

Univariate testing for the RT group showed significance on the STAI-S with a trend on STAI-T. Follow-up testing using Dunn's test revealed no significant differences.

The null hypothesis was rejected in that means representing the dependent variables from the treatment conditions (RSDI, CR, RT, and SSC) did differ significantly across pre, post I, and post II measurements. The alternative hypothesis, that means representing the dependent variables from the RSDI group will be superior to the CR, RT, and SSC groups across pre, post I, and post II measurements, was accepted. The CR and RT groups were not significantly superior to the SSC group.

The ANCOVA performed on GPA data supported the findings from the MANCOVA data. Again, main effects for groups were significant, while main effects for therapists were non-significant. Interactional effects were also non-significant. Planned comparisons for groups showed RSDI to be superior to the other three—CR, RT, and SSC.

**Discussion**

The RSDI group showed itself to be superior when compared to CR + RT + SSC. CR was quite close to being significantly more effective than RT + SSC, but RT was not
significantly more effective than SSC. In examining each individual dependent measure, the RSDI group showed significance on the STAI-STATE with a trend toward significance on both the PBI and STAI-TRAIT. Across time, from post I to post II, the RSDI group maintained its position of superiority. The RSDI group also showed significance on GPA, while none of the groups were able to. That the RSDI group was superior at post test I and was able to maintain its gain is consistent with other findings using the same approach (Boutin and Tosi, 1976; Reardon and Tosi, 1976; and Howard and Tosi, 1979).

It seems as though the impact generated by this particular treatment package tends to hold up over time. This finding is consistent with those reported by Reardon and Tosi (1976), Boutin and Tosi (1975), and Howard and Tosi (1979).

The CR group, while it did not actually reach significance on the overall multivariate test, did show significance on the PBI measure, with trends evident on TSC, SSHA, and the overall multivariate test. The trends held up very well over time (from post I to post II). This finding suggests that a very straightforward approach to teaching the rudiments of RET is more effective in modifying rational thinking, when rationality is isolated as a dependent variable. This, too, is consistent with other research findings using a similar approach (Decker, 1977).
The RT group, while not showing significance on the overall multivariate test, did produce significantly different results on the univariate test of STAI-STATE, with a trend toward significance on the STAI-TRAIT. This finding is not surprising in light of the fact that the treatment approach stressed relaxation training. It suggests that this particular approach to dealing with tension and anxiety with low achieving student populations is effective.

Conclusions and Recommendations

1. RSDI subjects showed statistically significant improvement when the MANCOVA program was used to analyze self-concept, anxiety, study habits, rationality, and academic achievement. The RSDI group showed gains at post test I and maintained those gains at post test II, which occurred five weeks after post test I and during which time the subjects received no additional treatment. The cognitive restructuring and relaxation training groups did not show significant gains, and since the RSDI approach is basically a combination of the two, it would appear as though presenting the basic RET ideas using the RSDI adaptations results in more effective immediate and longer term benefits. The results of this study are very much like other research
findings employing a similar design (Boutin and Tosi, 1977; Reardon and Tosi, 1977; Howard and Tosi, 1979). Rational Stage Directed Therapy was shown effective in modifying behavior across cognitive, emotional, and behavioral domains.

2. Mitchell and Piatkowska (1974), who are clearly two of the leading experts in the field of scholastic low achievement, state clearly that work in the area to this date has been relatively ineffective, too narrowly focused, and contributing little or nothing to the theory behind working with this population. The RSDI treatment approach used in this study goes a long way in responding to the challenge issued by these two experts. RSDI was effective in raising GPA. This is a considerable accomplishment when one considers that only 10 sessions were held over a five-week period. In addition to this, RSDI attends to all aspects of the individual—cognitive, affective, and behavioral. The RSDI approach is firmly grounded in a theory that is becoming very popular and widespread in its use with clinical as well as non-clinical populations.

3. That the relaxation training group and the study skills groups did not show themselves
to be significantly effective is also important. It is time to stop viewing education and scholastic achievement as strictly intellectual activities. Although wholistic approaches to the individual are gaining in stature, there are still far too many sectors of society that ignore the psychological side of learning. That the RSDI group improved significantly more on GPA than the other treatment groups suggests that, at the very least, psychological phenomenon interact with such things as intelligence and study skills and habits. That the SSC group did not improve on GPA significantly, further supports this assertion.

The conclusions listed above must be considered in light of the current study and its specific limitations. Generalizations to other problem areas and populations are only aids in stimulating further thought and research, and are not valid scientific conclusions. However, based on the current research, Rational Stage Directed Imagery seems to have valuable potential in modifying several levels of human functioning. Further studies are needed to examine the various variables of change in RSDI (i.e., a deep state of relaxation, imagery, cognitive restructuring) and their application to other populations and problems. When
the multivariate findings are viewed overall, it would seem that RSDI, though not a catchall remedy for all psychological disturbances, is, nonetheless, a potentially effective therapeutic approach in its own right.
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### SELF-EVALUATION QUESTIONNAIRE

*Developed by C. D. Spielberger, R. L. Gorsuch and R. Lushene*

**STAI FORM X-1**

**NAME ___________________________ DATE ____________**

**DIRECTIONS:** A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

<table>
<thead>
<tr>
<th>Statement</th>
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<th>2</th>
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<th>4</th>
<th>5</th>
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<th>7</th>
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<th>17</th>
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<td>□</td>
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<td>2. I feel secure</td>
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<td>□</td>
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<td>7. I am presently worrying over possible misfortunes</td>
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<td>□</td>
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<td>12. I feel nervous</td>
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<td>13. I am jittery</td>
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<td>14. I feel &quot;high strung&quot;</td>
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**CONSULTING PSYCHOLOGISTS PRESS**

577 College Avenue, Palo Alto, California 94306

128
SELF-EVALUATION QUESTIONNAIRE
STAI FORM X-2

NAME ___________________________________________ DATE ________________

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

21. I feel pleasant .................................................................................................................

22. I tire quickly ................................................................................................................

23. I feel like crying ...........................................................................................................

24. I wish I could be as happy as others seem to be ......................................................

25. I am losing out on things because I can't make up my mind soon enough ........

26. I feel rested ..................................................................................................................

27. I am "calm, cool, and collected" .............................................................................

28. I feel that difficulties are piling up so that I cannot overcome them ............

29. I worry too much over something that really doesn't matter ........................

30. I am happy ..................................................................................................................

31. I am inclined to take things hard .............................................................................

32. I lack self-confidence ...............................................................................................  

33. I feel secure ................................................................................................................

34. I try to avoid facing a crisis or difficulty ..................................................................

35. I feel blue ...................................................................................................................

36. I am content ..............................................................................................................

37. Some unimportant thought runs through my mind and bothers me ............

38. I take disappointments so keenly that I can't put them out of my mind ....

39. I am a steady person ...............................................................................................  

40. I get in a state of tension or turmoil as I think over my recent concerns and
    interests .....................................................................................................................

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These consist of pages:

130-140

__________________________
APPENDIX D

TENNESSEE

SELF CONCEPT SCALE

by

William H. Fitts, PhD.

Published by
Counselor Recordings and Tests
Box 6184 - Acklen Station
Nashville, Tennessee 37212
<table>
<thead>
<tr>
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### Column C: Personal Self

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**Total Scores:** 40

- **Total Positive:** 20
- **Total Negative:** 20

**Extraction of Scores:**

- Positive: 20
- Negative: 20

**Percent Positive:** 50%

**Percent Negative:** 50%

**Total Positive:** 20

**Total Negative:** 20

**Summary:**

- Positive: 20
- Negative: 20

**Total:** 40

**Percent Positive:** 50%

**Percent Negative:** 50%

**Total Positive:** 20

**Total Negative:** 20

**Note:**

- The table represents a score sheet for evaluating personal self-esteem in terms of physical, intellectual, and social aspects. Each score is positive or negative, with a total of 40 points. The scores are then used to calculate various percentages and totals. The final score is used to determine the overall self-esteem.
INSTRUCTIONS

On the top line of the separate answer sheet, fill in your name and the other information except for the time information in the last three boxes. You will fill these boxes in later. Write only on the answer sheet. Do not put any marks in this booklet.

The statements in this booklet are to help you describe yourself as you see yourself. Please respond to them as if you were describing yourself to yourself. Do not omit any item. Read each statement carefully; then select one of the five responses listed below. On your answer sheet, put a circle around the response you chose. If you want to change an answer after you have circled it, do not erase it but put an X mark through the response and then circle the response you want.

When you are ready to start, find the box on your answer sheet marked time started and record the time. When you are finished, record the time finished in the box on your answer sheet marked time finished.

As you start, be sure that your answer sheet and this booklet are lined up evenly so that the item numbers match each other.

Remember, put a circle around the response number you have chosen for each statement.

Completely Mostly Partly false Mostly Completely
Responses false false and true true partly true

1 2 3 4 5

You will find these response numbers repeated at the bottom of each page to help you remember them.
1. I have a healthy body
3. I am an attractive person
5. I consider myself a sloppy person
19. I am a decent sort of person
21. I am an honest person
23. I am a bad person
37. I am a cheerful person
39. I am a calm and easy going person
41. I am a nobody
55. I have a family that would always help me in any kind of trouble
57. I am a member of a happy family
59. My friends have no confidence in me
73. I am a friendly person
75. I am popular with men
77. I am not interested in what other people do
91. I do not always tell the truth
93. I get angry sometimes

Completely Mostly Partly false Mostly Completely True
Responses false false and true partly true

1 2 3 4 5
2. I like to look nice and neat all the time
4. I am full of aches and pains
6. I am a sick person
20. I am a religious person
22. I am a moral failure
24. I am a morally weak person
38. I have a lot of self-control
40. I am a hateful person
42. I am losing my mind
56. I am an important person to my friends and family
58. I am not loved by my family
60. I feel that my family doesn't trust me
74. I am popular with women
76. I am mad at the whole world
78. I am hard to be friendly with
92. Once in a while I think of things too bad to talk about
94. Sometimes, when I am not feeling well, I am cross

Completely Mostly Partly false Mostly Completely
Responses false false and true true partly true

1 2 3 4 5
7. I am neither too fat nor too thin
9. I like my looks just the way they are
11. I would like to change some parts of my body
25. I am satisfied with my moral behavior
27. I am satisfied with my relationship to God
29. I ought to go to church more
43. I am satisfied to be just what I am
45. I am just as nice as I should be
47. I despise myself
61. I am satisfied with my family relationships
63. I understand my family as well as I should
65. I should trust my family more
79. I am as sociable as I want to be
81. I try to please others, but I don't overdo it
83. I am no good at all from a social standpoint
95. I do not like everyone I know
97. Once in a while, I laugh at a dirty joke

<table>
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<th>Partly false</th>
<th>Mostly true</th>
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</table>
8. I am neither too tall nor too short
10. I don't feel as well as I should
12. I should have more sex appeal
26. I am as religious as I want to be
28. I wish I could be more trustworthy
30. I shouldn't tell so many lies
44. I am as smart as I want to be
46. I am not the person I would like to be
48. I wish I didn't give up as easily as I do
62. I treat my parents as well as I should (Use past tense if parents are not living)
64. I am too sensitive to things my family say
66. I should love my family more
80. I am satisfied with the way I treat other people
82. I should be more polite to others
84. I ought to get along better with other people
96. I gossip a little at times
98. At times I feel like swearing

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<th>Mostly false</th>
<th>Partly false</th>
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</table>
13. I take good care of myself physically  
15. I try to be careful about my appearance  
17. I often act like I am "all thumbs"  
31. I am true to my religion in my everyday life  
33. I try to change when I know I'm doing things that are wrong  
35. I sometimes do very bad things  
49. I can always take care of myself in any situation  
51. I take the blame for things without getting mad  
53. I do things without thinking about them first  
67. I try to play fair with my friends and family  
69. I take a real interest in my family  
71. I give in to my parents. (Use past tense if parents are not living)  
85. I try to understand the other fellow's point of view  
87. I get along well with other people  
89. I do not forgive others easily  
99. I would rather win than lose in a game

Responses

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14. I feel good most of the time
16. I do poorly in sports and games
18. I am a poor sleeper
32. I do what is right most of the time
34. I sometimes use unfair means to get ahead
36. I have trouble doing the things that are right
50. I solve my problems quite easily
52. I change my mind a lot
54. I try to run away from my problems
68. I do my share of work at home
70. I quarrel with my family
72. I do not act like my family thinks I should
86. I see good points in all the people I meet
88. I do not feel at ease with other people
90. I find it hard to talk with strangers
100. Once in a while I put off until tomorrow what I ought to do today

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APPENDIX E

R.S.D.I.

Session #1

1. Have each student introduce himself, relate academic experiences that lead to his being in group, and share hopes and expectations for program. Focus on student's perception of causes and effects leading to low grades. Keep mental note to work into our explanation of low achievement.

2. Have group discuss present situation, i.e., low academic status and the pressures that result! How does it feel from day-to-day to be on academic warning or probation? How do they end up feeling about themselves as persons? Is it easier or harder to be a student? How the problem becomes the problem.

3. Build case for failure in college. Speak about how system leads to adjustment problems which lead to possible dismissal. Also, speak of personal defense mechanisms contributing to failure, e.g., denial and not accepting responsibility. Resistances to personal growth.

4. Introduce our concept of low academic achievement and how it typically leads to low self-concept and, therefore, to perpetuation of low academic status and self-concept. Vicious, cyclical, downward spiraling syndrome.

5. Introduce R.E.T. as way of breaking above-mentioned vicious cycle, of raising or eliminating self-concept and as a way of facilitating learning and/or performance in any evaluative situation. As set of internal facilitative conditions.


7. Homework - make weekly schedule and begin monitoring daily routine.
Session #2

1. Review ABCD's of RET using concrete examples and giving Ss opportunity to share occurrences of past week. Facilitate group dynamics.

2. Introduce Self-directed Behavior Change Instrument. Take Ss through entire process step by step. Focus on studying or test-taking or attending classes. Have Ss share their own sequence with group.

3. Introduce change process as form of reconditioning. Explain how we will be attempting to identify and change IRB's. They will be expected to work and practice at reindoctrinating themselves. Explain how emotions fall in line with RB's last. Easier to change thoughts and behaviors.

4. Introduce relaxation idea as state of focused attention, which promotes learning by decreasing resistances and increasing suggestability. Put Ss through relaxation sequence up to imagery state. Include deep breathing, systematic muscle relaxation, visualing a relaxing scene and deepening. Suggest practicing at least 3 times during the week. Suggest they will be relaxed and feeling good the rest of the evening.

5. As homework have them do an irrational sequence analysis and reconstruction on studying, test-taking, and going to classes. Suggest they purchase a copy of New Guide to Rational Living.

Continue monitoring study time.

Session #3

1. Review homework (SDBC) from previous week. Focus especially on their practice sessions using the RSDI. Try to elicit specific examples where you will be able to deal with problems in a way that is beneficial to the entire group. Use Ss problems to teach clearer, more differentiated understanding of RSDI.

2. Introduce RET idea of self-rating and how detrimental and unnecessary it is. Introduce more rational way of dealing with self and performances, day to day, i.e.,
you can rate your skills, traits and performances but better not generalize to total self.

3. Induce relaxation and put Ss through awareness and exploration relative to studying, test-taking, and attending classes. Try to integrate their previously disclosed IRB's.

4. As homework have them continue to use their SDBC Instrument as well as practicing the RSDI.

Continue monitoring study time.

Session #4

1. Review homework as done previous week.

2. Introduce RET idea of catastrophizing and how each one of us does that in some area of our life. Show how arbitrary and self-defeating the process is. Suggest more rational way of dealing with such situations. Facilitate group discussion.

3. Continue exploration stage of RSDI. Focus on rational phase only.

4. As homework – same as previous week.

Session #5

1. Review homework in similar fashion.

2. Introduce RET idea of dire needs vs. wants and desires. Give Ellisonian argument.

3. Induce relaxation and guide Ss through RSDI using commitment stage relative to attending classes, studying and test-taking.

4. Homework – same as previously assigned.

Session #6

1. Review homework as above

2. Introduce RET idea "I must be loved and approved of by all significant others." Give Ellisonian argument.

3. Induce relaxation, guide Ss through RSDI using skill development stage for attending classes, studying and taking tests. Discuss experience.
4. Homework as before.

Session #7
1. Review homework as above.

2. Introduce RET idea "I believe certain acts are wrong and bad and people performing them are bad and should be condemned." Give Ellisonian argument.

3. Induce relaxation and guide Ss through RSDI using skill refinement stage for studying, taking tests, attending class behaviors. Discuss experience.

4. Homework as above.

Session #8
1. Review homework.

2. Introduce RET idea "In order to feel good about myself I must be thoroughly competent at everything I do." Give Ellisonian argument.

3. Induce relaxation and guide Ss through RSDI using skill refinement stage for taking tests, attending class and studying behaviors. Discuss experience.

4. Homework as above.

Session #9
1. Review homework

2. Induce relaxation and put Ss through redirection stage.

3. Introduce RET idea "I can't stand it when things aren't the way I want them to be." Provide Ellisonian argument.

4. Homework as previous

Session #10
1. Review homework

2. Post Test I
APPENDIX F
Cognitive Restructuring

Session #1
Same as RSDI session #1

Session #2
A. Review RET
B. Review SDBC
C. Introduce staging idea
D. Homework
   1. Have students list self-defeating beliefs relative to academic performance.

Session #3
A. Review homework
B. Discuss awareness stage
C. Discuss academic problems in all 3 areas relative to awareness stage.
D. Homework
   1. Use S.D.B.C. instrument
   2. List awareness activities

Session #4
A. Review homework
B. Introduce exploration stage
C. Discuss academic problems relative to exploration stage of RFT.
D. Homework
   1. List exploration stage activities

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Session #5
A. Review homework
B. Introduce commitment stage
C. Discuss academic problems relative to RET & commitment stage
D. Homework
   1. Make list of commitments.

Session #6
A. Review homework
B. Discuss skill development stage
C. Discuss academic problems relative to RET & skill development
D. Homework

Session #7
A. Review homework
B. Discuss skill refinement stage
C. Discuss skill refinement of RET in academic situations.
D. Homework
   1. Make list of skill refinement activities
APPENDIX G

Relaxation Training

Session #1
A. Rationale: Group counseling dynamics
B. Introduce relaxation training
C. Homework
  Practice

Session #2
  Relaxation
  Discussion
  Homework

Session #3  Same
Session #4  Same
Session #5  Same
Session #6  Same
Session #7  Same
Session #8  Same
Session #9  Same
Session #10
  Post testing
APPENDIX H

Group #4
Study Skills Counseling

Session #1  Introduction and Orientation
Time Management: Planning and Using a Study Schedule
Discussion

2  Attending Classes: How to Attend a Class
Discussion

3  Note-taking: A Guide to Better Note-taking
Discussion

4  Studying: SQ3R
Discussion

5  Exams: How to Take Exams
Discussion

6  Decision-making: An Overview of Decision-making
Discussion

7  Implementation: How to Change Behavior
Discussion

8  Summary and Review

9  Finals Week - final exam
APPENDIX I

Self-Directed Behavior Change in the Cognitive, Affective, and Behavioral Motoric Domains:

A Rational-Emotive Approach

Donald J. Tosi, Ph.D.
The Ohio State University
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## PART II - The Reconstruction Process

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INTRODUCTION

This exercise is designed to facilitate self-directed behavioral change in the cognitive, the affective, and the behavioral motoric domains. The value of this exercise is that it can be performed in real life situations (in vivo) or in one's imagination (emotive-imagery). The exercise permits persons to develop a greater awareness of self through self-exploration. Moreover, it is intended to help persons acquire skills that they may use to excellent advantage in the control of their own behaviors.

This self-directed intervention is based upon rational-emotive theory and thus emphasizes cognitive control over emotions and behavior. Rational-emotive theory holds that most sustained negative emotions which interfere with effective behavior (problem solving, self-assertiveness, decision-making, etc.) are the result of irrational ideas which take the form of biased, prejudiced, internalized sentences. Rarely do events external to us cause our discomfort. In reality, it is our own perceptions, attitudes, or internalized sentences about those events outside of us that affect us most.

Specifically, this exercise should (1) enable a person to explicate his thinking or ideas about significant events that are associated with areas of ineffective functioning, and (2) help that person to generate more reasonable
thoughts or ideas that would be associated ultimately with more positive emotions and behavior.

In completing this exercise you will be assisted with any questions or difficulties you may have by your counselor, teacher, or workshop leader. If this exercise is being completed at home, you may write your questions or comments on the extra sheets provided.

ABCD
Model of Cognitive, Affective, and Behavioral Processes

Person Perceives, Appraises, Evaluates Event(s) - (Irrational or Rational Ideas About A)

External or Internal Event(s) (Real or Symbolic Representations of Present, Past, Future Events)

Feeling, Emotions or Affect (Positive or Negative)

Overt or Covert Actions Toward or away from A (Depending on B & C, Behavior (D) will be Self-Enhancing or Self-Defeating)
(Note) Some persons report that their behavior (D) follows feelings (C) about events (A). They appear to be unaware of the thoughts that cause, support, and sustain the feelings. In other cases, some persons are not aware of their emotions (C) and attribute their behavior (D) to their thoughts (B). In actuality, both B and C interact to cause or to influence one's behavior (D). Thus, appropriate psychological interventions assist persons initially to become fully aware of the entire ABCD sequence.

Since persons have the ability to observe themselves or consider themselves as objects, a B, a C, or a D may become an A. As can be observed, the ABCD process is cyclical in nature.

B and C are states occurring within the person exclusively. A & D are often observable to others, but may also occur within the person.
PART I
The ABCD
IRRATIONAL
SEQUENCE
EXAMPLE OF IRRATIONAL ABCD SEQUENCE

B

Wife

"the cognitive appraisal. He called me a ____. He shouldn't do that. He doesn't have a right to put me down. I can't stand that man when he does that. I can't stand to be called dirty names because if other people hear they might think its true. I couldn't stand that.

"the event"
Husband screams at wife and calls her a dirty name

"the emotion"
Anger
(I could kill him)

The behavior toward A
"overt"
(Irrational Approach) Excessive name calling and reciprocal putting down. You are a ____ and everyone knows it. I hate you. Get away from me.
(Irrational Avoidance) Rejecting and avoiding A. Refusal to resolve or deal with conflict.
(A's)

Activating Events

Each of us find that many situations or events in our environment are sources of job or unhappiness. Significant situations for most of us are school, family, friends, church, etc. Examples of events typically associated with personal unhappiness are a mate screaming at you; a boisterous child; a pending divorce; politics; an undisciplined student; excessive demands made by bosses, friends, or relatives; and certain types of deviant behavior (homosexuality, criminality); examinations; social relationships, and, making career decisions. Events may also consist of your undesirable habits or behaviors such as eating and drinking too much, oversleeping and being late for appointments.

First, list three specific and significant events that are sources of psychological discomfort for you. Second, rank these events that activate negative emotional reactions from least emotionally upsetting to most emotionally upsetting.

<table>
<thead>
<tr>
<th>Listing of Activating Events</th>
<th>Ranking of Activating Events from least emotionally upsetting to most emotionally upsetting</th>
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<tbody>
<tr>
<td>1. _________________________</td>
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Undesirable Emotional or Affective States
Associated with Significant Situational Events

The following list depicts negative emotional or affective reactions associated with certain events (real or imagined). Identify those emotional reactions accompanying each of the activating events you have already listed on the preceding page. Record these under Cu's (undesirable emotions) on Form A.

Undesirable Emotions

1. Anger or great irritability
2. Anxiety, severe worry, or fear
3. Boredom or dullness
4. Failure to achieve
5. Frustration
6. Guilt or self-condemnation
7. Hopelessness or depression
8. Great loneliness
9. Helplessness
10. Self-pity
11. Uncontrollability
12. Worthlessness or inferiority
13. Stubbornness
14. Lazy
15. Sinful
16. Self-hate
17. Excessively shy
18. Hating others
19. Vulnerable
20. Dependent
21. Mistrust
22. Rigid
23. Foolish
24. Jealousy
25. Other (specify)
Undesirable Behaviors, Actions, or Habits

This is a list of behaviors generally considered to be self-defeating or undesirable, especially, when they are of a high frequency, intensity, and duration. From the list below, choose those behaviors that are most often associated with the activating event(s) you specified (A) and the undesirable emotional or affective states (C) you have already determined for yourself. Record these on form A. You may read to be more specific than suggested by the above behaviors.

1. Avoiding responsibility
2. Acting unfairly to others
3. Being late to appointments
4. Demanding a trending
5. Physically, attacking others
6. Procrastinating
7. Telling people off harshly
8. Whining or crying
9. Withdrawing from activity
10. Excessive drinking of alcohol
11. Overeating
12. Undersleeping
13. Oversmoking
14. Excessively manipulating
15. Taking too many drugs or pills
16. Being sarcastic
17. Lying
18. Cheating
19. Overprotecting
20. Other (specify)
The Irrational Beliefs or Ideas

The following are commonly held irrational ideas or beliefs that are causes of emotional disturbances. From the list, choose those irrational ideas (IB's that occur between the Activating Events (A) and the emotions (C) you generally experience. At first this may prove to be difficult because such thinking generally occurs in symbolic or shorthand form and may not be in one's awareness. The idea here is to slow down the thinking process enough so that those ideas associated with or cause emotional distress will come into sharp focus or awareness. It may be easier if you can translate the above ideas into words that are more familiar to you. Record those IBs you select under IB.

When you have finished this section you have completed the ABCD personal analysis of your specific thoughts, feelings, and actions associated with significant events.

(1) I must be loved or approved by everyone for virtually everything I do. Or, if not by everyone, by persons I deem significant to me.

(2) I believe that certain acts are sinful, wicked, or villainous, and that people who perform such acts should be severely punished and blamed.

(3) I can't stand it when things are not the way I would like them to be.
(4) When I am unhappy it is because something external to me such as persons or events causes me to be that way.

(5) I should be terribly concerned about things that may be dangerous or fearsome to me.

(6) Although I want to face difficult situations and self responsibilities it is easier for me to avoid them.

(7) I need someone stronger or greater than myself on whom to rely.

(8) In order to have a feeling of worth, I should and must be thoroughly competent, adequate, intelligent, and achieving in all possible respects.

(9) When something once strongly affected me, it will always or indefinitely affect me.

(10) I don't have much control over my emotions or thoughts.

(11) I should never be angry or express my anger because such expression is bad and a sign of personal weakness.

(12) I should rarely confront other people or assert my own thoughts or feelings about another person because people are fragile and are hurt easily. I don't want to hurt anyone.

(13) Most of the time I will please other people even if I have to forgo my own pleasure.

(14) I am happiest when I just remain inactive and passive.

(15) In order to be perfectly fulfilled as a human being I need (must have) a close personal, involved, and intimate relationship with another person especially a member of the opposite sex.
### ABCD Problem Analysis
#### Part I
(Form A)

<table>
<thead>
<tr>
<th>LEAST EMOTIONALLY UPSETTING</th>
<th>MOST EMOTIONALLY UPSETTING</th>
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</table>

**A) Activating Events**

**IBs) Irrational Ideas or Philosophies (Thoughts)**

**Cu's) Undesirable Emotions**

**Du's) Behavioral Consequences Associated with C**

*Try to be as specific as possible in describing IBs, Cu's, and Du's.*
PART II

THE RECONSTRUCTION PROCESS
Psychological Reconstruction

The purpose of this section "the reconstruction process" is to assist persons to move beyond a mere understanding or awareness of those socio-psychological processes that contribute to personal and/or environmental conflict. Moving beyond awareness and understanding implies intervention. That is, self-intervention or simply one's learning to do something about those feelings and behavior that contribute to his personal unhappiness.

The central theme of rational emotive theory is "cognitive control" over emotions and behavior. Thus, since it is man's thinking that is largely responsible for his emotional distress and ineffective behavior, it is of greatest import to man that he learn to challenge, contradict, and ultimately replace those thoughts, ideas, or beliefs that do not serve his best interest with more reasonable or self enhancing thoughts, ideas, or beliefs.
The Rational Ideas or Beliefs
(Contrast to Irrational Ideas)

The following ideas (RB's) are contrasts to those irrational ideas presented in the last section. When a person substitutes these ideas for his previously held irrational ideas, he will eventually notice positive changes in his emotional states and resultant behavior.

This exercise is designed to (1) introduce persons to more rational ways of thinking about the Activating Events associated with emotional disturbance and to (2) assist persons in the contradicting and challenging of those self-defeating ideas that support negative emotions and self-defeating behavior. This exercise can be performed "in vivo" (real life situations) or through Imagery.

The numbering of the RB's correspond to the numbering of the IB's in the preceding section. Record those RB's that contrast with those IB's you previously identified under RB in form B. While recording those RB's you select, try to imagine yourself using those ideas in those real settings (As) which are personal sources of disturbance.

(1) While it is desirable to be approved and accepted by others, it is not an absolute necessity. My life doesn't really depend upon such acceptance,
nor can I really control the minds and behavior of other persons. And, furthermore, a lack of total acceptance is certainly not catastrophic or horrible and doesn't at all mean that I am worthless or a louse.

(2) Many persons do commit acts that are inappropriate, self-defeating, or antisocial. It is desirable to try to induce such persons to act more effectively than to spend needless time and energy blaming, accusing, and becoming upset over their acts. Moreover, needless blame and punishment rarely stops such persons who are usually ignorant, emotionally disturbed, or stupid from committing such acts. Demanding that persons should not commit stupid acts often times is nothing more than a demand that reality be different - reality is reality. The crucial question is, what constructive actions can I initiate to modify reality?

(3) When things don't go the way I want them to go, it is too bad or inconvenient - but not catastrophic. And, it may be in my best interest to change them or arrange conditions so that they may become more satisfactory. But, if I can't change or modify situations to my liking, I would be better off accepting their existence rather than telling myself how awful they are.

(4) While most people are taught that external events are the direct cause of one's unhappiness, in virtually most cases, human unhappiness is caused by one's thoughts, appraisals, evaluations, or perceptions of those events. That is, I create my own disturbance. Since I am human, I can expect to disturb myself often. But, that doesn't mean I have to continually disturb myself forever.

(5) If something is or may be dangerous or fearsome, it is probably in my best interest to face it and try to render it less dangerous and, if that is impossible, I could stop dwelling on such fears - especially when little evidence exists that such horrible things will, in fact, occur.
(6) While it is humanly normal to want to take the easy way out such things as avoiding life's difficulties and self-responsibilities, in the long run, I would probably be better off confronting openly such difficulties, facing them squarely, and trying to solve them.

(7) Although the socio-cultural system teaches and reinforces one's tendencies to be dependent on others and things. I would be better off standing on my own two feet in facing life. Moreover, if I fail to be independent in the short-run, that doesn't mean that I will fail in the future. After all, am I not a fallible person?

(8) Since I am a human being with biological, sociological, and psychological limitations, I cannot reasonably expect to be perfect in any endeavor. But, I certainly can strive to perform well in those tasks I deem as significantly contributing to my self-development. In those areas I am deficient, I certainly can strive to improve those areas. If, I fail, tough - too bad.

(9) Although I have been influenced greatly by my past experiences and that specific instances of the past greatly affect me today, I can profit by such experiences but not be overly prejudiced or biased by them. Nor do I need to be dominated by them in the future.

(10) Human beings, including myself, are happiest when they are actively involved in creative pursuits or when they devote themselves to people or projects outside of themselves. Long term withdrawal from the world or inaction rarely are associated with happiness. Therefore, it would be in my best interest to force myself into productive or creative activity.

(11) I could probably develop the skills necessary to control enormously my own emotions or feelings if I decide to commit myself to that process. And, it would be in my best interest if I would take the necessary risks in order to achieve a greater control over my own destiny. Of course, I don't really expect to develop these skills overnight.
(12) Anger is a normal human emotion and its expression is not a sign of personal worthlessness. Moreover, being aware of my anger and expressing it as a communication of current feelings without indiscriminantly attacking the personal worth of other may be in my best interest. Denying my anger is rarely in my best interest.

(13) If I share most of my thoughts and feelings (negative or positive) honestly and openly, it will probably help me communicate more effectively with others in the long run - even though in the short run, I might experience some temporary discomfort.

(14) Striving to know and to accept others for their humanness is a reasonable goal. Moreover, it is in my best interest to try to act fairly with others so I may receive the full benefit of their humanness. However, trying to please others at the expense of my own well being is not personally growth enhancing. Therefore, I can only do my best in trying to please others. If I fail - tough!

(15) It is desirable for me to be able to develop meaningful and intimate relationships with persons especially those of the opposite sex. However, if I demand intimate and satisfying relationships with others, I will tend to focus on the outcome of such interpersonal relationships rather than the process of getting to know and accept another person. Therefore, I would be better off not demanding but trying to be spontaneous, responsive, and accepting towards significant persons.
(Cp's)

Positive Emotions

This list consists of emotions that are generally positive or desirable. Although persons do not experience these always, these emotions are experienced under a variety of conditions with varying degrees of frequency, intensity, and duration. From this list, choose those emotional responses that would be more desirably associated with those activating events (As) and rational ideas (RBs) you have already listed. Also, it is important that you imagine these more positive feelings as emotional responses to those activating events (As) and rational beliefs (RBs). Record your choices under C or form B.

Desirable Affects or Emotions

| 1. Relaxed | 14. Confident |
| 2. Joy | 15. Self-Accepting |
| 4. Loving | 17. Caring |
| 5. Hope | 18. Able |
| 6. Warmth | 19. Lively |
| 7. Guiltless | 20. Happy |
| 9. Elation | 22. Trusting |
| 11. Energetic | 24. Stable |
| 12. Merry | 25. Pleasant |
| 13. Cheerful | 26. Other (specify) |
Desirable Behaviors, Actions, or Habits

The following behaviors are generally considered desirable or self-enhancing. More often than not persons engaging in these are more effective than they are ineffective. Choose those behaviors (Dds) that are associated with more reasonable ways of thinking (RBS) and feeling (Cds). You may need to be more specific than suggested below. Again, try to imagine yourself utilizing these more self enhancing behaviors as a response to the As, Rbs, and Cds you have already determined:

1. taking responsibility
2. acting fairly
3. being punctual
4. self-assertiveness
5. spontaneity
6. moderate drinking of alcohol
7. being kind
8. honesty
9. considerate
10. helpful
11. reliable
12. tender
13. responsive
14. frank
15. eating normally
16. sleeping normally
17. patient
18. minimizing dependence on people, drugs, etc.
19. taking decisive actions
20. efficient
ABCD ANALYSIS, THE RESTRUCTURING PROCESS
PART II
(Form B)

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<thead>
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<th>LEAST EMOTIONALLY UPSETTING</th>
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<tbody>
<tr>
<td>A) ACTIVATING EVENTS</td>
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<td>2</td>
</tr>
<tr>
<td>RBS) RATIONAL IDEAS OR PHILOSOPHIES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cp's) DESIRABLE EMOTIONAL OR AFFECTIVE REACTIONS (Real or Imagined) **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dd's) DESIRABLE BEHAVIORAL CONSEQUENCES (Real or Imagined) **</td>
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**In this exercise, the more preferred Cs and Ds may need to be imagined first before they may actually occur in behavior.
ADDITIONAL COMMENTS

Thoughts, emotions, and behaviors you would like to change as a result of completing this exercise:

Strategies or solutions you might develop and use in achieving desirable cognitive (thinking), emotional and behavioral outcomes:
Now that you are deeply relaxed, we are going to move to the next stage of our growth process, exploration stage. You have become aware of many of the irrational beliefs that appear to cause you undesirable emotions and self-defeating behaviors and you have also become aware of some rational alternatives - beliefs and self-talk that lead to more comfortable feelings and rewarding behaviors.

As we move into the exploration stage, I'd like you to focus your attention on attending classes. Imagine, in your mind's eye, getting ready to go to the class you enjoy least, and having these rational thoughts, "This class isn't very interesting and the instructor lectures too fast, and seems not to care much about me or any of the other students. This is unfortunate and annoying, but this is the way it is for right now. I don't prefer it this way, but I can certainly tolerate it, and, in fact, I will tolerate it and learn in spite of all these inconveniences because I recognize it to be in my own best interests. I can still feel the tendency I have to skip classes like I did so often last quarter, but this quarter I'm choosing not to do that. Whether that professor or
anyone else at OSU cares about me really isn't the most important thing right now. I care about me, and I'm going to class to absorb what I can. It may be a bit boring at times, but I can tolerate that too. Life doesn't have to be thrilling 100% of the time for me to survive and be content."

....

I want you to imagine saying those kind of thoughts to yourself and notice how it tends to be a little easier to go to class. Picture yourself saying these rational statements as you leave for class. Now, imagine yourself sitting in class and actually becoming a little interested in what's going on; beginning to get creatively absorbed...

I want you to continue to realize that thinking in the ways I've described leads to more comfortable feelings and efficient behaviors. Thinking determines feelings. Allow yourself to see how you're coming to have more and more control over your life as you explore more rational ways of thinking and acting.

Now, once again go to your relaxing scene and allow yourself to become very, very relaxed....

Now, as a way of review and reinforcement, I would like you to focus on the studying behavior we discussed a week or so ago. Imagine, in your mind's eye, sitting down to study, and continue to explore the rational thoughts that go with these behaviors. Imagine saying to yourself,
"Well, I'm going to spend a couple of hours studying and then I'm going to reward myself with something pleasurable. I know now that studying isn't my favorite thing, but I am committed to doing more and more things that are good for me in the long run."

Now, picture yourself actually studying and not totally grasping all the material, and saying to yourself, "Well, this material is relatively new to me and I'm not quite understanding all the concepts and ideas, but I'm coming to realize that that is sort of to be expected. I don't especially like it, and I wish it were easier to understand, but I can certainly tolerate it for now. Not understanding every single idea presented certainly has little or nothing to do with being intelligent or dumb. I realize that if I stick with my studying in a relaxed, yet determined manner, I will eventually move through these early stages of the learning process and into a more enjoyable and rewarding stage where the ideas and concepts start to look familiar and make more sense. I can certainly tolerate this ambiguity and mild frustration in the meantime."

Now imagine yourself repeating such rational thoughts as you engage in effective study behaviors. Picture yourself studying for a full two hours with few, if any, breaks. Notice how good it feels to think and act in these ways. Notice, too, how self-talk such as has been
described leads to better feelings and more efficient behavior, and how you can gain more self-control by thinking in more rational ways.

Lastly, I want you to focus on a typical test-taking situation. We are going to concentrate on the rational thoughts you have recently become aware of and have explored. Picture yourself, in your mind's eye, getting prepared for your most difficult midterm or final. Picture yourself sitting down to spend about an hour reviewing for your test. See yourself exploring the rational thoughts, feelings, and behaviors you have become aware of in recent weeks. As you review your notes, you are realizing that you don't know everything there is to know about the subject matter, but you have attended most of the classes and have taken adequate notes. You have read and understood most of the material and aren't feeling any particular need to be perfect and know everything.

You finish your review and head out for the building in which your class meets. As you walk along, your thoughts sound something like this:

"I would like to do my best on this exam so that I can raise my grades, and I'll do what I can to reach that goal. But I realize that if I do less than my best or even if I do rather poorly it won't be the end of the world. And further, my performance on this test in no way reflects what I am as a person. I am no longer defining
myself based on my behavior. Doing poorly simply indicates I need to do more studying for exams or I need to be less nervous when taking tests. I am not my test score or grade point average."

Now imagine yourself beginning to take the exam. You have answered a couple of questions with a fair degree of certainty and then you run into one that you do not know the answer to. Observe yourself not panicking, but calmly saying to yourself, "well I'm not really familiar with the material contained in this question, but that's not all that surprising. I didn't really expect to answer every question correctly, so this just confirms my expectations. I'll make the best guess I can and move on to the others." Imagine yourself completing the entire exam in this fashion and then carefully checking it over for careless errors. You hand it in with a sense of accomplishment and walk home.

On the way home you are feeling pretty good. You realize how much control you have over your feelings and behaviors by how you think. You are by no means perfect at controlling your thoughts and emotions, and never will be for that matter, but you are enjoying the good feelings that come with understanding your own behavior and beginning to make some changes that will lead to a more satisfying life in the long run... Enjoy the feeling....
I would like you to return, once again, to your relaxing scene and allow yourself to become totally relaxed as the scene becomes clearer and clearer. I would like you to practice this sequence at least three times this week for 15 or 20 minutes. Now, on the count of 5, I would like you to open your eyes. You will feel relaxed and refreshed and remain so for the rest of the (day) (evening).

5 - 4 - 3 - 2 - 1. Open your eyes.
APPENDIX K

Relaxation Protocol

Part I: Deep Breathing

Start taking in deep breaths and feel the air circulating around your lungs to the very pit of your stomach. Breathe deeply and continue to inhale relaxation so that with each deep breath that you take, you find yourself becoming very relaxed . . . and very comfortable. Concentrate on becoming relaxed; on inhaling relaxation, and exhaling tension. So that with each deep breath that you take, you find that you are becoming very . . . very relaxed . . . and very . . . very comfortable. Your eyes may feel heavy, and if they are not already closed, you might allow them to do so . . . and as you do, you find yourself becoming even more comfortably relaxed. You may notice outside noises and talking, but nothing will bother you . . . nothing will affect your becoming very deeply . . comfortable . . . relaxed, so that with each deep breath you take, you find yourself slipping deeper and deeper into relaxation. You find yourself becoming very relaxed . . . further relaxed . . . deeply relaxed . . . You find yourself in a very comfortable . . . a very warm . . . a very relaxed state . . . a very deeply relaxed state . . .

I want you to stop your deep breathing now and concentrate on the second part of our relaxation process . . . the muscle relaxation.
Part II: Cognitive Muscle Relaxation

I want you to concentrate on allowing all of the muscles in your body to become completely relaxed. You will find as you let your muscles relax, you can get even deeper into relaxation.

Concentrate now on all of the muscles in your forehead; feeling them losing tension . . . becoming very very soft and relaxed . . . absolutely relaxed and comfortable. With all the muscles in your forehead relaxed, I want you to allow the relaxation to spread through your face . . . around your eyes, and chin . . . around your mouth and nose . . . so that every muscle in your face is becoming very softly, beautifully, and pleasantly relaxed. As each muscle relaxes, the relaxation very easily flows to the next set of muscles, and you find yourself becoming even more exquisitely relaxed.

Now with all the muscles in your face relaxed, concentrate on all of the muscles in your neck . . . Allow them to become relaxed . . . Allow every muscle to relax. There is no need for any tension . . . your neck muscles are very . . . very relaxed. Now, with all of the muscles in your neck relaxed, concentrate on allowing your shoulders and back to become very relaxed . . . You can feel these very powerful muscles relaxing . . . a feeling of comfort comes over you . . . from your shoulders to your back . . . around your sides . . . to your chest.
Your muscles automatically relax . . . As you concentrate on allowing them to become even more relaxed . . . they do so. Your chest wall moves effortlessly up and down . . . up and down . . . you can feel it floating as you become absolutely relaxed. You may be experiencing a very warm and a very comfortably floating sensation . . . a very safe feeling. Now, with each muscle in your chest absolutely relaxed . . . beautifully relaxed, concentrate on all the muscles in your arms.

Allow your upper arms to become relaxed, to lose any tension that might be left . . . your lower arms are becoming very relaxed and the relaxation seems to flow through your fingers . . . and you are finding yourself very comfortably . . . very beautifully, very softly relaxed.

Now with every muscle in the entire upper half of your body very, very relaxed, concentrate on allowing every muscle in the lower half of your body to become completely and totally relaxed. Starting with all the muscles in your hips and going to your knees, allow every muscle in your hips to become very relaxed . . . very comfortably relaxed. You can feel your strong thigh muscles becoming soft and comfortable . . . becoming very relaxed. The muscles feel like they are just hanging on your bones . . . they are completely relaxed. Now concentrate on the lower half of your legs becoming relaxed. From your knees to
the tips of your toes, you find yourself in a very deep state of relaxation; a very deep and pleasant state ... a very beautiful and comfortable state.

As you are in this very relaxed comfortable, safe, state you will find that you can go very easily and automatically into the third stage of relaxation which is the scene we discussed earlier.

Part III: Description of Scene

The particular scene described to the subject is important in that it includes the following four essential elements:

(1) The scene should include a very serene setting which is loosely described by the therapist, e.g., a nature setting, or a peaceful seashore.

(2) A rhythm must be established using some facet of the scene, e.g., the waves are rolling, rolling, rolling, into the shore, in and out ... in and out . . .

(3) Suggestions must be given that elicit peace, comfort, and serenity, as well as, the visualizing and hearing of sights and sounds within the scene; e.g., you find yourself at peace and extremely comfortable, so that you can actually see and possibly even hear the gulls gracefully floating overhead . . .
(4) Direct suggestion that it is easy for the Ss to experience the scene is important, e.g., you are more able to get into the scene . . . becoming more relaxed . . . as you get into it more, the details become clearer to you . . . there is no need for any tension . . . only relaxation.

The therapist must be careful not to describe the scene too rigidly, because his suggestions may conflict with the subject's projections, thereby lessening the relaxation rather than deepening it. After the scene has been described, the therapist says:

I will let you savor and enjoy this relaxation for a moment, then I will count to five and you will awaken. You will feel inevitably much more refreshed and relaxed and able to carry on throughout the rest of the day (evening) in a very relaxed and very attentive state . . .

I am now going to wake you by counting to five and you will feel very good . . . 1 . . . 2 . . . 3 . . . 4 . . . 5 . . .
# AN OVERVIEW OF DECISION-MAKING

<table>
<thead>
<tr>
<th>Decision Phase</th>
<th>Personal Activity/Involvement</th>
<th>Force-Field Step</th>
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<tr>
<td><strong>Acknowledging</strong></td>
<td><strong>A.</strong> Recognition of the need to make a decision.</td>
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<td></td>
<td><strong>B.</strong> Recognition of the control/power you have to decide.</td>
<td><strong>Problem identification</strong></td>
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<td><strong>C.</strong> Recognition of the responsibility you are willing to assume.</td>
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<tr>
<td><strong>Valuing</strong></td>
<td><strong>A.</strong> Determine what is important to you</td>
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<td></td>
<td><strong>B.</strong> Determine what you want to accomplish by the decision.</td>
<td><strong>Goal Statement</strong></td>
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<td><strong>Exploring</strong></td>
<td><strong>A.</strong> Assess current information.</td>
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<td><strong>B.</strong> Identify needed information and information resources.</td>
<td><strong>Define positive and negative forces</strong></td>
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<td><strong>C.</strong> Generate alternatives</td>
<td><strong>Generate new action steps</strong></td>
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<td><strong>A.</strong> Assess alternative actions.</td>
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<td>1. <strong>Probability</strong></td>
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<tr>
<td>Decision Phase</td>
<td>Personal Activity/Involvement</td>
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<td>B. Assess projected outcomes.</td>
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<tr>
<td></td>
<td>1. Probability</td>
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<td></td>
<td>2. Desirability</td>
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<tr>
<td>Implementing</td>
<td>A. Develop a decision-making strategy.</td>
<td>Behavioral action plan</td>
</tr>
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<td></td>
<td>B. Select from among the alternatives.</td>
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<td></td>
<td>C. Implement the decision-take overt public action.</td>
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<td>Experiencing/</td>
<td>A. Experience and review consequences of your choice.</td>
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<tr>
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<tr>
<td>Acknowledging</td>
<td>A. Recognize the need to make a new decision.</td>
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APPENDIX M

You Can Improve Your Study Skills!

If you have always had a complete semester to study a textbook; if your high school teachers usually followed the textbook for their lectures so that you may be used to gaining most of your information orally; or if, for any reason, you haven't learned efficient reading and study methods, you may have difficulty with college level courses. Generally speaking, the three main characteristics of successful college work are:

1. You must be able to take thorough, well-organized lecture notes and to read a large body of material and learn it on your own, in a few weeks time (a quarter);

2. You must be able to learn fine details, as well as generalities, from a large amount of material and to integrate knowledge from a variety of sources;

3. You must be able, after you thoroughly learn the material, to analyze and apply this information to any new situation presented to you.

Check List of Study Habits:

Use the following check list to test yourself concerning general study techniques which you should be using regularly:
1. Can you read and learn at the rate of approximately 12-15 pp. per hour of history-type material? (Many students' rate for this type material is 20-25 pp. per hour.)

2. Are you reading and studying each day's assignment according to the method by which you will be tested—in fine detail or in generalities?

3. Can you regularly concentrate on your most difficult subject at peak efficiency for two hours without having to take a break?

4. Do you make an effort to ask your professors for help or explanations when needed?

5. Do you study for your difficult classes by reviewing first by yourself and then going over the material out-loud with a student who is doing well in class?

6. Are you comparing your lecture notes with those of a good student in your class, to make sure you are not omitting important information and to check what you have listed as main ideas, etc?

7. Are you keeping up with assignments by studying every course at least a little every day? Do you study about 4 hours each day? Do you have an efficient work schedule?
8. Are you working as many practice problems as you have the time to do for all quantitative courses, such as math, physics, chemistry, and accounting?

9. Are you making every effort to continue to develop your general English vocabulary, as well as learning technical words of your major area of study?

10. Are you participating in class discussion?

11. Do you visualize what you are reading as you read - to improve comprehension and to ensure that you are concentrating on the subject?

12. Are you analyzing your returned tests to learn which part of a course you are losing the most points on - the lecture, text, outside reading, lab, etc.? Are you correcting your mistakes?

13. Before exams do you review and attempt to predict test questions according to the method by which you will be tested?

Reading

Always follow the three steps listed below for intensive reading of study-type materials.

1. Make a fast overview of the assignment by reading all major and minor section
headings and glancing over any maps, charts, graphs, etc.

2. **Read** the assignment.

3. **Without taking a break**, make a fast overall **review** of what you have just read.

Be flexible in your reading by learning more than one good reading method. Learn the special skills of **skimming** for general information and **scanning** for answers to specific questions.

**About Speed:**

If you are having difficulties completing assignments in a reasonable length of time, this does not necessarily mean that you read too slowly. If you read about 300 words per minute with adequate comprehension, you should be able to complete assignments in a reasonable length of time **if** you use efficient **reading organization** methods, such as taking organized notes and underlining main ideas. Of course, you should check to make sure any vision problems you may have are corrected, and you should avoid such obviously poor habits as reading only one-word-at-a-time, retracing frequently, or moving your lips when reading.

**Reading-Study Skills Center:**

Begin now to develop your study skills by applying those techniques which you are not now using. If you find that you need to know methods for applying the skills mentioned in the check-list above, and particularly, if you
feel that your reading is inefficient, you may wish to attend a reading and study skills group. These groups are offered at the Reading-Study Skills Center located on the lower floor of the Learning Resources Center on West Campus. They are offered as a free service to enrolled students, on a first-come, first-served basis. (You may inquire in Room 024, Learning Resources Center.)

Jane Kollaritsch, Counselor  
Reading-Study Skills Center  
Learning Resources Center  
Room 024  
422-1461
APPENDIX N

How to Take Examinations

I. Study for exams.

A. When to review.

1. Frequently during quarter - try to review subjects daily and weekly for more effective learning.

2. Schedule several final review sessions - not one long period.

3. The night before - briefly review main points and go to bed early. An appropriate amount of sleep is essential.
   a. Cramming is undesirable but better than nothing if study has been neglected during the quarter.
   b. Do not study just before test time (anxiety and memory losses may develop).

B. Study techniques.

1. Study with a purpose.
   a. Organize materials so that main points and relationships are clear.
   b. Study to remember - not just read over material. (Use SQ3R).
   c. Memorize certain materials and review frequently (ex. diagrams, definitions).

2. Predict possible questions (either essay or completion type), then write out some answers.

3. Go over previous tests in course or former tests given by professor if available.

c. Understand items you missed - what was wrong with your attack on the questions? carelessness? organization of ideas? lack of completeness or clarity?

4. Cultivate an interest in the subject.
   a. Usually something attractive about any course.
   b. Relate subject to other interests.
   c. Develop involvement with your subject.
   d. Avoid making excuses for yourself. (ex. dull professor, uninteresting course, poor memory, just can't do well on objective tests)

5. Avoid distractions.
   a. Clear desk of unnecessary objects.
   b. Set deadlines.
   c. Plan time schedule for study.

II. Examinations.
   A. Procedure or plan of action.
      1. Start immediately.
      2. Read the directions carefully.
      3. Scan exam quickly to determine kinds of questions, how many points for each, whether choice of questions to answer.
      4. Adopt a time budget for each type of question, allowing time for checking.
      5. Answer easiest questions first, usually.
      6. Try to base your answers on textbook and lectures first, not own experience.
7. Check questions where unsure of answer.
8. Check essay questions for grammar, spelling, smoothness, clarity.
9. Check all questions if time available.
10. Try to be the last to leave, not the first. Use your extra time for checking.

B. Dealing with different types of questions.

1. Essay questions.
   a. Read all questions first: note of choice.
   b. Jot down key words and major ideas as you read.
   c. Begin with easiest question.
   d. Briefly outline answer for organization.
   e. Write legibly.
   f. Answer every required question. No answer is 0 credit!
   g. Leave space for corrections if possible.
   h. Answer the question; note key words: analyze elaborate, compare, evaluate, explain, illustrate, outline, define.
   i. Be concise if time is at a premium.
   j. Use technical terminology if appropriate.
   k. Watch spelling.
   l. Reread and polish.

2. Multiple choice questions.
   a. Don't expect trick questions.
   b. Always guess if no penalty for wrong answers.

   (l) Eliminate answers definitely wrong.
(2) Make an educated guess among plausible answers.

(3) Use exam cues (unintentional mistakes of test-maker) qualified answer more likely correct than absolute; unduly long answer more likely right; avoid choosing either of two synonyms if opposites both used, one is probably correct; avoid bizarre or completely unfamiliar distractors; watch for consistent grammatical structure between stem and answer; clues to some answers may be found in other questions. (Use these suggestions only when guessing. They are no help with a sophisticated test and no substitute for thorough preparation.)

c. Follow directions meticulously if special answer sheet used.

(1) Is a special pencil required?

(2) Put answer mark in proper space! Make mark just dark enough.

(3) Avoid all extraneous marks; make careful erasures.

(4) Check question number with answer number frequently.

d. Mark question where unsure of answer. Go on and return to these questions as soon as finished.
APPENDIX O

Establishing a Study Routine

1. **Schedule your time for the week**
   
a. Schedule for the whole week everything you have to do. You'll need to allot about six hours of study time per week (at least) for each three-credit hour course. Schedule time for classes, eating, studying, working, laundry, showers, sleeping and relaxing with your favorite TV program. Use small amounts of unexpected free time (that 15 minutes between lunch and class) to do small tasks such as reviewing class notes.

   Establish a routine. Study at the same time and place each day for each course. Give more time to essentials such as required courses. (See a sample weekly schedule on the next page.)

b. Organize your study periods by making a daily plan of work. List the chapter to be read, notes to be reviewed and vocabulary lists to be memorized on your daily work plan. Check each item as you complete it. Schedule any uncompleted work for the following day. (See sample work plan in the back of this manual.)

2. **Study at the same place each day.**
   
a. Choose a quiet place where you can isolate yourself from distractions. Use the library, a study lounge, an empty classroom - whatever works for you.

b. Use your study place for studying only. Writing letters, reading for pleasure and recreation should be done elsewhere. That way you will have established one place with the connotation: "Work only is done here," and you will not be tempted to stop studying and do something else.

3. **Avoid distractions and interruptions**
   
a. Let your friends know that you do not wish to be disturbed while you are studying.
b. Radios, TV and record players should, of course, be off.

4. "Take 5" every hour

a. Give yourself a five minute break every hour so you—and your brain can relax. Or, if you're unaccustomed to studying for a whole hour, start with 15 minutes at a time, or even less. Then increase your work intervals slowly. Then, if you've really (honestly!) worked, be sure to take that break and reward yourself for your efforts. Take a walk, get a cup of coffee or a coke, something short and refreshing. Be equally sure, however, not to exceed that break beyond 5 - 10 minutes, otherwise you will find it increasingly difficult to return to work.

Taking and Using Lecture Notes

1. Listen and Think

a. Pay careful attention and take down all important points emphasized in class. It is not necessary to write things you already know. When taking notes in class devote most of your effort to listening and understanding. Take a minimum of notes which will serve as cues and which you can expand later when you review your notes. Even the best notes are useless unless used well.

2. Use 2/3 of the paper for notes, 1/3 for cues.

a. Save 1/3 of the width of your paper for subheading, major concepts, key phrases. (See attachment 3)

3. Review your notes

a. As soon as possible after class read over your lecture notes. Underline and mark the important points. Fill in ambiguous abbreviations, correct errors, and organize facts into their proper relationships.

4. Review notes frequently during the semester

a. Frequent repetitions make studying for exams easier and more effective.
Studying for Exams

1. **Schedule your reviewing in advance**
   
a. Review lectures and text study notes. Ask yourself questions and answer them. You might want to study aloud, or perhaps write the answers since most exams are written. Note, however, that studying and reciting aloud has been shown to be a particularly effective study technique.

b. Review study cards on formulas and definitions until you can recite or write correct answers from memory. This assures, of course, that such formulas are understood by you and that you could apply them.

c. Reread summary paragraphs, introductory and closing chapters of books and parts you have singled out for emphasis. Outline the chapters and/or your notes so that in the end you have a neat, concise catalogue of the material required for each test.

d. Read over all notes quickly an hour or two before the exam to solidify the information.

Aids to Concentration

Try doing "just one more page"

a. If the temptation to stop studying becomes too great, try reading "just one more page" before quitting. Read it thoroughly, taking notes or making cards adequately, then stop if the urge is still there. It may be that the desire to stop will disappear, once the pace of study has been resumed.

b. The next time the need to stop studying occurs, try reading "just two more pages," and on a subsequent occasion "just three more pages."

Try the subtask approach

a. Achieving several subgoals can provide the encouragement needed to continue until the total goal is achieved.
b. Divide the daily assignments into several smaller assignments. (e.g., finish one-third of a History reading assignment in an allotted time.) Don't make the discouraging mistake of trying to do more at one time than would be humanly possible.

c. Try to break your own record. (e.g., learn the French vocabulary faster today than yesterday or take more readable lecture notes for this class than the last.)

Try developing a genuine interest in subject matter

a. Seek out occasions to use a foreign language.

b. Try to relate information from history, literature, sociology, etc. to personal experiences and values.

c. Seek practical ways to use math and science in every-day life.

d. Try to consolidate things learned by discussing them or by actually teaching them to others who are interested.
APPENDIX P

How to Attend a Class

1. Ask each of the students what he knows about attending a class to his best advantage.

2. **Attend all classes yourself.** In that way you do not get anything that happens in the class second-hand.

3. Immediately after you have attended your first class, be certain that you do not leave without certain facts:
   
   a. What is the name, phone, office, address, and office hours of the instructor(s) in charge.
   
   b. Get the name and phone number of one other person in the class. The reason for this is that if you get sick then there is some student upon whom you can call for assignments. This works the other way around obviously. It is the old buddy system. It also provides an excellent insurance policy in case you are unable to attend a class and cannot reach the instructor.

4. **Sit where you can hear the instructor and the other members of the class.** It is obvious that it is hard to hear students who sit ahead of you when a question is asked. Oftentimes this results in your hearing answers for...
questions you never heard. This suggests that if you are
to maximize your academic success in a class you should sit on the side toward the front of the room.

5. The smallest class obviously is one where there are but two people— you and the instructor. Thus the front row in a class is the best position in which to locate yourself. If you sit very far back in a class you have to look through all those other heads that are in front of you. Then, too, your eye picks up all of the action and distraction from the other students.

6. According to research, the students who do best in any given class are those who sit close to the front. Why? The reasons are: (1) There is the greatest chance of involvement on the part of the student with the teacher. (2) You have the best chance to be known by the teacher, thus it makes it much easier for you to meet the teacher outside of the class situation if that need arises. (3) Sitting up close the teacher tends to react to the students that are there. You have a chance to subtly influence what is happening in the class. (4) The students who sit towards the front have the chance to hear the most of what happens in a class. The payoff can be higher because the student has put himself in a superior learning position. (5) It is a place where one can react with other students more readily if it is a discussion type situation. (6) If the classroom situation does not lend itself to asking questions
in the context of the class, then it is to the student's advantage to ask questions before and after class. These give the teacher the chance to have feedback which can help him speak more directly to your needs. If the teacher never knows what your questions are, he can answer them only by chance. The teacher is usually the person in the class who is best prepared to answer questions.

7. Do assigned readings before lectures.
8. Review notes from last lecture prior to next class.
9. Use class to clarify what you don't currently understand.
10. Use your instructor as a resource person.
11. Develop an open, curious attitude.
12. Take responsibility for your own learning.
13. Keep asking yourself, "What can I do to make this class better?"