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THE UNIVERSITY OF ALBERTA

A RATIONAL GROUP THERAPY APPROACH TO  
COUNSELING ANXIOUS UNDERACHIEVERS

BY



KUNDAN L. SHARMA

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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The undersigned certify that they have read,  
and recommend to the Faculty of Graduate Studies for  
acceptance, a thesis entitled "A Rational Group Therapy  
Approach to Counseling Anxious Underachievers" submitted  
by Kundan L. Sharma in partial fulfilment of the require-  
ments for the degree of Doctor of Philosophy.

*Dr. J. G. L. ...* Supervisor

*V. R. N. G. ...*

*H. A. ...*

*Arthur J. B. ...*

*John A. ...*  
External Examiner

Date . July 13, 1970. .

## ABSTRACT

The main objective of this study was to evaluate the effectiveness of rational group counseling in helping anxious high school underachievers. The central theme or assumption of the Rational-Emotive approach developed by Ellis is that maladjustment is chiefly caused by, and under the control of, one's own thinking, particularly thinking via "internalized sentences" that the individual keeps repeating to himself.

One of the basic tenets of this study is that group participation substantially enhances the attitudinal de-indoctrination of subjects.

Specifically, it was hypothesized that anxious underachievers receiving rational group treatment (Group A) would show: (1) greater reduction in irrational beliefs, (2) greater reduction in test anxiety, and (3) greater improvement in school marks, than would the subjects in the three control groups. The subjects in the first control group were taught rational ideas (Group B), the subjects in the second control group were taught study-skills (Group C), and the third control group received no treatment (Group D).

Eighty-four selected anxious underachievers were divided into the four treatment groups. Three qualified and experienced school counselors assumed the responsibility of working with sub-groups, meeting once a week for fifty minutes, over a period of nine weeks.

The criteria measures used to test the stated hypotheses were: the Irrational Ideas Inventory (I-I Inventory) by Zingle (1965); the Achievement Anxiety Test (AAT) by Alpert and Haber (1960); and school marks. Differences between pre- and post-treatment scores served as measures of change.

Immediately after the termination of treatment it was found that the underachievers exposed to rational group counseling (Group A) had shown significantly greater reduction in irrational beliefs than did the underachievers in the control group. Changes in Group A, on the other hand, were not significantly different from the changes in the other groups on test anxiety and on school marks.

However, five months after the experiment was over, follow-up testing revealed that whereas the situation concerning test anxiety remained essentially unchanged, the rational counseling group showed significantly greater improvement in school marks than did the other three groups.

On the basis of these findings, it was concluded that rational group counseling is an effective technique for helping anxious underachievers at the high school level.

Suggestions were made about the educational and research implications of rational group counseling of anxious underachievers.

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## CHAPTER I

### INTRODUCTION

Never before has the need for understanding of the factors which contribute to school success been quite as acute as it is now (Raph, Goldberg, & Passow, 1967). The ever broadening spectrum of our scientific and technological progress, from the harnessing of atomic energy to the "race into space", has placed a special premium on talent and brain power in all areas of human endeavor.

The most critical waste of a nation's manpower resources is students of high ability who leave school early, who do not go to college, or who drop out of college prematurely. This makes academic failure one of the major problems, both a direct challenge and a paramount issue, confronting Education in schools and colleges today.

### BACKGROUND OF THE STUDY

Students whose academic achievement is not commensurate with their capacities have been the recipients of much concern and study. However, as Peterson (1963) has pointed out in a review of the literature on the subject, the results of these studies are largely inconclusive and often contradictory.

First of all, the definition of the term "academic underachievement" appears to lack consensus. Most definitions

of underachievement center around the discrepancy between actual and predicted performance. Most observers are in general agreement that the phenomenon is adequately defined in some such terms as: "an academic underachiever is a student who has the measured ability to achieve a level of academic success significantly above that which he actually obtains (Golburgh & Penney, 1962, p. 133)." While this definition at a theoretical level is acceptable to most educational researchers, lack of consensus at a practical level still remains. The main reason for this problem is in getting a measure of potential that is independent of and uncontaminated by present achievement.

Underachievement is a complex phenomenon which appears to be clearly related to problems of the child in many areas: personal adjustment, parent-child relationships, social acceptance, self-concept, etc. Many studies (as reviewed by Jackson, 1968) have been directed toward the identification of personality correlates of underachievement. However, the findings of these studies are often paradoxical (Peterson, 1963).

Pierce (1961a) attempted to differentiate between able high- and able low- achieving high school students on a number of non-intellectual variables. The sample consisted of the top thirty per cent in intellectual ability of tenth- and twelfth- grade students. The study showed a significantly better adjustment on the part of the high-achieving boys and

girls, as measured by the California Psychological Inventory, than was true for the low achievers. De Hirsch (1963), in a clinical study of adolescents with marked scholastic difficulties, also came to a similar conclusion.

On the other hand, there are studies which fail to differentiate the underachiever group from the normal- or over- achieving population on personal adjustment scores (McGuire, 1962). It could be that the inconclusive and somewhat contradictory evidence on the relationship of personal adjustment to achievement is due to the problems inherent in assessing personality functioning, the types of instruments used to measure adjustment, and the varying definitions of underachievement.

The onset of academic underachievement in bright children has been the subject of a great deal of speculation but very little research. Shaw and Grubb (1958), after reviewing the findings of their study on able high school underachievers, are of the opinion that the genesis of underachievement goes back to pre-high school years.

Shaw and McCuan (1960), on the basis of comparison between groups of high ability achievers and underachievers at every grade level from one through eleven, found that the male underachievers tended to receive grades lower than the achievers beginning in grade one, and that this difference became highly significant at grade three. The female underachievers, on the other hand, actually somewhat exceeded

achievers in grade-point average for the first five years of school. This situation was reversed by the beginning of grade six. It seems safe to conclude then that under-achievement appears relatively early in the child's life and unless arrested keeps developing as the person grows older (Jackson, 1968).

Underachieving behavior may be shaped by parental attitudes. But the findings concerning the influence of parental variables on school performance, are equivocal. Attempts have been made, with some degree of success, to find the family relations correlates of academic achievement. For example, Kimball (1953) found a positive association between high school achievement and the degree of emotional support in the home. A causal link between disturbance in parent-child interactions and the child's cognitive impairment has been reported by Wallach, Ulrich, and Gruenbaum (1960).

Underachievement may not only be a reaction to family factors, but there appear to be certain contributing factors in the peer group of the child. Tannenbaum (1962) investigated peer attitudes toward academic brilliance amongst adolescents. He found that the students described as brilliant, highly studious, nonathletic, ranked the lowest. Peer approval is highly reinforcing for the underachiever. In this connection, the study of Evans and Oswalt (1968), exploring the impact of peers on underachievers, is pertinent. Evans and Oswalt found that academic progress can be



accelerated by arranging contingencies in such a manner that peer influence is brought to bear on the subjects' academic performance. Underachievement seems to be a form of individual asociality anchored in peer-clique asociality. Communications from the child's immediate academic peer group may constitute one of the more decisive determinants of achievement.

In recent years the self-concept, defined as the sum total of attitudes and feelings that a person has regarding himself, has received considerable attention from researchers as a central feature of underachievement. Payne and Farquhar (1962) have postulated that a student's self-concept is a functionally limiting or facilitating factor which interacts with motivation in academic achievement. Brookover and his associates (1962) studied the relationship between self-concept and achievement, with over 1,000 junior high students. They found a positive relationship between the self-concept of ability in a given subject and performance in that subject. However, Fink (1962) found that the relationship between the self-concept and achievement was upheld in the case of boys only. Shaw and Grubb (1958) also report male underachievers as having more negative feelings about themselves than equally bright achieving boys. Crowne and Stephens (1961) see self-acceptance as having promise for becoming an increasingly attractive focus of interest in underachievement research.

The dilemma of ascribing cause or effect to self-concept in scholastic attainment poses problems not readily amenable to present research methods. Self-concept may be both the cause and the effect of underachievement (Jackson, 1968). According to Friedenberg (1959), the youngster who fails in school, having discovered that he is good at nothing, stands a strong chance of becoming good for nothing. Failure, just like success, appears to be cumulative. In sum, deficiency in self-esteem may be a significant determinant of underachievement.

Underachievers come to place an inordinate amount of responsibility in the hands of teachers and others. Negative attitudes toward school are far more common among underachievers than achievers. Underachievers also show elements of helplessness. A typical comment: "I keep on telling myself that I am going to do my best but when the time comes, well I get in trouble, and I can't help it. I don't know."

Numerous attempts have been made to explain the kind or irrational beliefs which prevent a young person from meeting one of society's first demands, that of satisfactory school work. Hummel and Sprinthall (1965) compared the attitudes of intellectually superior achievers with equally bright underachievers. They found the underachievers to be more fatalistic in their expectations concerning outcomes of personal efforts and less willing to postpone immediate gratifications.

Anxiety too can help explain the disparity between ability and performance (Raph et al., 1967). Several researchers (Alpert & Haber, 1960; Bricklin & Bricklin, 1967) have established achievement anxiety to be a variable of which test performance is a function. It appears, therefore, that test anxiety is a correlate of underachievement.

It can be concluded that underachieving students generally hold irrational beliefs (Conklin, 1965) and exhibit high anxiety (Andrews, 1969). Furthermore, the greater the degree and number of irrational ideas, the more the extent of avoidant behavior and, hence, the lower the performance (Lafferty, 1963).

Thus in recent years, a considerable body of empirical data has accumulated indicating a relationship between personality factors such as irrational beliefs, anxiety, and underachievement. Indeed, academic underachievement is a multi-faceted phenomenon (Raph, Goldberg, & Passow, 1967).

#### Attempts to Rectify Underachievement

A variety of programs designed to overcome underachievement exists. However, numerous studies have reported the relative ineffectiveness of many of these current treatment approaches.

In an attempt to explore the effects of perceptual training on scholastic achievement of elementary school underachievers, Goins (1958) failed to obtain any significant

change in reading ability.

After a year of experimentation with a program of home visitation as a means of raising the academic attainment of high school students, Schoenhard (1958) reports the failure of the experiment to establish the value of the program of guidance that was used.

One of the oldest, and still most commonly used, methods of assisting academic underachievers is tutoring. In spite of the appearance of validity the results have not been encouraging (Raph et al., 1967).

Some studies indicate that training in study skills is effective to a certain degree. For example, Blake (1956) reports positive findings at the University of Maryland. Of course, what he failed to mention was the extent to which this improvement could, in fact, be attributed to incidental counseling. Training in study habits and attitudes may not be the best mode of helping academic underachievers (Zingle, 1965). A survey of the literature also indicates that other approaches such as teacher-student interviews (Moore & Popham, 1960), and warnings by the administrators (Zingle, 1965) have been tried but found wanting.

If underachievement is not a surface phenomenon which is easily changed (Shaw & Grubb, 1958), then the problem demands personality modification.

Individual counseling for academic recovery (Calhoun, 1956) is one of the many types of endeavors which have been

tried for some time now. Golburgh and Penney (1962) recommend sector counseling, a specific limiting technique similar to what Tyler (1960) has called "minimum change therapy". In sector counseling the underachiever is helped to recognize the possibilities that are open to him for directional shift concerning the academic situation.

Baymur and Patterson (1960) investigated the hypothesis that therapeutic counseling is effective in reducing underachievement. While the results of the overall analysis of variance were not significant, the comparisons of counseled versus non-counseled students yielded positive results on two of the criteria: adjustment and grade-point average. Zingle (1965) attempted to help underachievers through rational-emotive counseling. He reported positive results.

However, there are other studies which fail to provide any significant evidence in support of individual counseling as a means of assisting underachievers (Andrews, 1969).

Even though counseling has emerged, in recent years, as one of the most widely used methods of attempting to help underachievers, the findings remain paradoxical. Could it be that the counselors have focused on underachievement and not on the individual? As Peterson (1963) puts it: "Like other behavior, underachievement is meaningful only in terms of the actor himself (p. 381)."

Few, if any, of those who have studied underachievement,

have addressed themselves to this question: What purpose does scholastic failure serve for the underachiever? Perhaps this is why there is a dearth of literature regarding successful treatment of underachievers.

A major productive direction in which the rectification of underachievement is moving involves the context of group therapy (Roth, Mauksch, & Peiser, 1967). Some studies which have employed group psychotherapy with underachievers, report success in raising academic performance, while other studies report no success whatsoever.

In an investigation of non-directive group therapy with freshmen students in academic difficulty, Sheldon and Landsman (1950) report a significant relationship between counseling and increased grades. With high-anxious college students, Spielberger, Weitz, and Danny (1962) found improved GPA following group therapy. Chestnut (1965) reports data suggesting that underachieving college students improve their grades through group therapy. On the other hand, Broedel and co-workers (1960), in their study of the effects of group counseling on gifted underachieving adolescents, reported no significant improvement in grades. Winborn and Schmidt (1962) report that short-term counseling tended to produce even a negative effect upon the academic achievement of potentially superior freshman as reflected by their academic grades. The authors recommend additional research.

The existing research reports concerning the effect

of group counseling on underachievers are inconsistent. Perhaps the contradictory findings can be attributable to the lack of clarification of the therapeutic approaches utilized.

The demand for further research, and the increasing shift to an emphasis on the client's relationships with other people, has brought with it an influx of new therapeutic strategies. For example, it is becoming increasingly apparent that the therapist must confront and accept responsibility as an active teacher and shaper of behavior (Stieper & Wiener, 1965). This is the direction in which psychotherapy seems to be developing. What is really needed is a specifiable group counseling approach based on an explicit theoretical rationale. Ellis (1963) has developed such a technique -- the Rational-Emotive psychotherapy.

The present study is an attempt to apply rational group therapy to the problem of underachievement.

#### STATEMENT OF THE PROBLEM

The primary purpose of this study is to evaluate the effectiveness of Ellis' rational group therapy in helping anxious high school underachievers.

If it were found that rational group counseling is effective, this would be important, since this method is less expensive or time-consuming to use than many commonly used approaches, and thus more students could be reached by the limited number of counselors available in schools.

## CHAPTER II

### THEORETICAL ORIENTATION AND RELATED LITERATURE

Ellis (1963) offers a parsimonious theory emphasizing the cognitive determinants of human emotions and behavior. He calls his approach Rational-Emotive Therapy (R-E T).

#### RATIONAL GROUP APPROACH

##### The Philosophy

Ellis' view of the nature of man is realistic. He essentially holds that behavior is both biologically and sociologically determined. According to the rational position human beings are born with tendencies to stick to old dysfunctional patterns of irrational behavior. People are prone to engage in all kinds of self-sabotaging activities (Ellis, 1961, 1963). At the same time, the rational approach acknowledges that man is a symbolizing and essentially creative animal. Man does not passively become indoctrinated with the teachings of his parents or other significant figures in his early life but actively propagandizes and reindoctrinates himself with his own variations of these teachings (Cassirer, 1953).

##### The Theory

Man's four basic processes -- perception, movement, thinking, and emotion -- are integrally interrelated. In



particular, rational therapy rests on the rather basic assumption that man's emotion and his thinking are not entirely different processes. The two are interrelated and overlap significantly. Every emotion has its cognitive counterpart, and every cognition its emotional counterpart (Rokeach, 1960).

In fact, thinking and emotion are so closely related that not only do they usually accompany each other but act in a circular cause-and-effect relationship. One's thinking often becomes one's emotions (Ellis, 1963). The sustained emotions depend very heavily on one's philosophic attitudes. In other words, man's values and his emotions are the product of his basic premises.

Further, it is hypothesized that since man is a uniquely sign-, symbol-, and language-creating animal, both thinking and emoting tend to take the form of self-talk or internalized sentences. Thus, for all practical purposes, the sentences that human beings keep telling themselves are or become their thoughts and emotions (Ellis, 1958).

According to Ellis, one of the major inadequacies of the Freudians and the Behaviorists is that they leave out a great deal of the "language" or "telling" aspects of human behavior. Thus, they are guilty of ignoring the extremely significant influences of verbal self-indoctrinations in the maintenance of neurosis. RT theory, on the other hand, stresses the important role auto-suggestion plays in

sustaining the neurotic behavior.

Once I had clearly begun to see that neurotic behavior is ... also internally reindoctrinated or auto-suggested by the individual to himself, over and over again, ... my work with my patients took on a radically new slant (Ellis, 1963, p. 22).

What Ellis is really getting at is that much of man's emoting takes the form of self-talk. It follows that man can gain an appreciable control over his emotions by controlling his thoughts.

Ellis further believes that human beings are the kinds of animals who, when raised in any society like ours, tend to fall victim to several major fallacious ideas. People repeatedly keep reindoctrinating themselves with these ideas in an unthinking, auto-suggestive manner, and, consequently, continue actualizing them in overt behavior.

Some of the major illogical and irrational ideas which, according to Ellis (1963, pp. 60-88), are presently very common in Western civilization and seem inevitably to lead to difficulties, are summarized below. The more rational replacements along with the rational ideas may be found in Appendix A.

1. The idea that it is a dire necessity for an adult human being to be loved or approved by virtually every significant other person in his community.
2. The idea that one should be thoroughly competent, adequate, and achieving in all possible respects if one is to consider oneself worthwhile.

3. The idea that certain people are bad, wicked, or villainous and that they should be severely blamed or punished for their villainy.
4. The idea that it is awful and catastrophic when things are not the way one would very much like them to be.
5. The idea that human unhappiness is externally caused and that people have little or no ability to control their sorrows and disturbances.
6. The idea that if something is or may be dangerous or fearsome one should be terribly concerned about it and should keep dwelling on the possibility of its occurring.
7. The idea that it is easier to avoid than to face certain life difficulties and self-responsibilities.
8. The idea that one should be dependent on others and needs someone stronger than oneself on whom to rely.
9. The idea that one's past history is an all-important determiner of one's present behavior and that because something once strongly affected one's life, it should indefinitely have a similar effect.
10. The idea that one should become quite upset over other people's problems and disturbances.
11. The idea that there is invariably a right, precise, and perfect solution to human problems and that it is catastrophic if this perfect solution is not found.

The central theme of RT theory is that it is the foregoing kinds of illogical ideas which are the basic causes of most emotional disturbances or neurosis.

Neurosis, then, usually seems to originate in and be perpetuated by some fundamentally unsound, irrational ideas. The individual comes to believe in some unrealistic, impossible,

often perfectionistic goals -- especially the goals that he should always be approved by everyone, should do everything perfectly well, and should never be frustrated in any of his desires -- and then, in spite of considerable contradictory evidence, refuses to give up his original illogical beliefs (Ellis, 1958, pp. 43-44).

### The Therapy

If emotionally disturbed individuals act in irrational and illogical ways, then the really relevant questions which can be raised regarding any form of therapy are: (1) How do people originally get to be illogical(?); (2) How have they been maintaining such behavior(?); and (3) How can they be helped(?).

Most of the traditional therapeutic techniques only show the client that he is illogical and how he originally became so. They often stop short of showing the client how he is presently maintaining his illogical thinking, and precisely what he must do to change it.

According to Ellis, an effective therapist should continually keep unmasking his client's past but especially, his present illogical thinking or self-defeating verbalizations. The rational therapist does so by: (a) bringing the irrational philosophies to the client's attention; (b) showing him how they are maintaining his present disturbances; (c) demonstrating precisely what the illogical links in his internalized sentences are; and (d) teaching him how to re-think these and similar other sentences.

[The] Rational psychotherapist makes a concerted attack on the disturbed individual's irrational positions in two main ways:

(a) The therapist serves as a frank counter-propagandist who directly contradicts and denies the self-defeating propaganda and superstitions which the client has originally learned and which he is now self-propagandistically perpetuating.

(b) The therapist encourages, persuades, cajoles, and at times commands the client to partake in some kind of activity which itself will act as a forceful counter-propagandist agency against the nonsense he believes (Ellis, 1958, p. 45).

The therapist must make an unequivocal attack, keep pounding away, time and again, at the illogical ideas underlying the client's fears, in order to induce him to adopt a more rational philosophy of living. Thus, the rational therapist attempts to go beyond the subject's immediate problems in order to provide the subject with generalized ways of problem solving.

### Group Setting

There are reasons to suspect that group therapy has several inherent advantages over individual therapy.

Man is a "group animal" (Wolberg, 1966). What man does and how he relates to the group, and what in turn the group does to him, are subjects of concern to the behavioral scientist. The small group setting represents a microcosm of society and as such offers the participants unique opportunities for therapeutic experiences. Individual

members learn from each other even in "sharing"\* their personal problems. The relatively safe environment presents prompt experimentation with newly acquired attitudes and values.

According to Krumboltz (1968) group counseling:

... consists of whatever ethical activities a counselor undertakes in an effort to help simultaneously two or more clients engage in those types of behavior which will lead to a resolution of each client's problems (p. 4).

In therapy groups each member is treated as basically a capable person, an equal human, and it is his deviation or departure from this status that the psychotherapist questions. In the process, each member sees that it is not the psychotherapist nor other members of society who frustrate or hinder him, but that he has, in a sense, operated against himself. Gradually, the members begin to assume responsibility for, and to take charge of, their own lives.

According to Ellis (1963), the theory of rational-emotive psychotherapy lends itself logically to the group setting. The main goals of rational groups are twofold. The first is to provide an atmosphere in which the participants can freely open up to each other about their most intimate thoughts, beliefs, and feelings. The second goal

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\*According to Mowrer (1964) one of the values commonly attributed to group psychotherapy is that it breaks down the insularity of its participants, and shows them that they are not unique and that their problems are common.

is to show each participant why he behaves in certain important ways and further to attack the philosophic underpinnings of his inappropriate emotions and behavior (Ellis, 1969).\*

Usually the sessions begin with someone presenting a personal problem. To this the rest of the group acts and reacts. The other members, acting as auxiliary therapists, question and challenge the presenting member. No holds are barred in the group (Ellis, 1963). Immediate and authentic "feed back" informs the recipient in unmistakable terms of just what impact he has on others in the group.

Ellis (1963) suggests some of the main advantages of rational-group therapy over individual therapy. Firstly, the setting often provides a kind of therapeutic climate where members share their experiences with each other. Secondly, members act as auxiliary therapists. Their role playing sets up cognitive dissonance which usually results in changes in beliefs and hence changes in behavior. Thirdly, the combined power of the group, when brought to bear on an individual member's irrational philosophies, is generally more effective in changing his self-indoctrinations than if the therapist is alone. Homework assignments, given and received during group therapy, are more often carried to completion than are homework assignments given in individual

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\*A. Ellis, personal communication, April 12, 1969.

therapy.

As the group approximates the society at large, and since the members socially interact within the group, the therapist does not have to rely on verbal reports of progress. In this way, the disparity between what one reports and what he actually does or feels is reduced.

It can be assumed that a group is capable of offering a greater diversity of hypotheses about human problems than can any single therapist. "In many respects, therefore, rational group therapy has concrete advantages over individual psychotherapy (Ellis, 1963, p. 313)."

### Conclusion

Conklin (1965) and Zingle (1965) have shown that the kinds of irrational beliefs presented by Ellis are closely related to underachievement. Taylor (1956) proposed anxiety as a factor which contains some important clues to the disparity between ability and performance.

According to Atkinson (1960) two opposing dispositions are activated in a performance situation: the "achievement motive" and the "motive to avoid failure". In the case of underachievers the fear of failure (an irrational idea) is stronger than the need to succeed. Consequently, the under-achievers become highly sensitive to implied personal threat and hence experience high anxiety.

From all this it follows that an underachiever is the



kind of person who holds irrational beliefs, and therefore exhibits anxiety which results in low performance.

The rational group counseling approach, through its concerted attack on anxious underachievers' irrational assumptions creates conditions which alter anxiety and, thereby changes performance.

### RELATED LITERATURE

Beliefs, emotions, behavior, and group influences are central to the theoretical rationale of this study. This section will present a brief review of the literature relevant to the major components of the theory outlined earlier.

#### Linkage Between Beliefs, Attitudes, and Behavior

First of all, there is ample support, both theoretical and empirical, which links cognitions and emotions (Fishbein, 1965a; Rokeach, 1960; and Schacter & Singer, 1962). According to Rokeach (1960) every emotion has its cognitive, physiological, and behavioral aspects. For Fishbein (1965a), an individual's attitude toward any object is a function of the person's beliefs about that object. The way one defines a situation determines one's reactions toward that situation. Schacter and Singer (1962) consider cognitions as providing the framework within which the individual labels his emotions.

Beliefs also serve a "biological" function in preparing

the organism for action. At least to some extent, beliefs have been taken as determinants of action (Gordon, 1962). Close relationship between belief and behavior has been reported by many investigators (Greenwald, 1965; Kiesler & Sakumura, 1966, etc.). Greenwald (1965) found that communications favoring more vocabulary learning in school produced alterations in the subject's beliefs toward performance. According to Kiesler and Sakumura (1966) beliefs and behavior move toward a state of greater consistency, both being mutually reinforcing in the service of inconsistency reduction, specially when dilemmas are intense.

Festinger (1957) has suggested that dissonance in cognitions or beliefs exerts a motivating influence on behavior. However, with regard to belief as a determinant of action, Festinger also focuses attention on the frequent occasions when this direction of causality is reversed. There are times, for example, when the person's action produces a belief to justify the steps already taken.

It can be concluded that beliefs play a steering role in peoples' lives. The linkage established so far is further reinforced through the mediation of speech.

#### Speech as a Regulator of Human Behavior

Toward the end of his life, Pavlov began to believe that a large part of human behavior differs significantly from anything found in lower animals (Berlyne, 1963). Recognition

of the "second signal system" -- the system concerned with verbal behavior and its properties -- implies that man is capable of abstracting, generalizing, and synthesizing the signals coming in from the environment.

According to Pavlov, and his followers, the language system of man represents a unique behavior-control mechanism. This helps explain both the external linguistic influences such as the effects of teaching, as well as the internal use of language by human beings to control their own behavior through "self-instruction".

Luria (1961) offers an impressive volume of evidence in support of Ellis' theory that covert verbal statements regulate human emotions. He outlines the stages of development through which speech becomes the "highest self-regulating system". Put in its most general terms, Luria's formulation asserts that speech first has an activating function. It serves as a start-signal for any particular sequence of behavior which is already about to go off. With further development, speech also acquires an inhibitory function and can serve to stop a behavior sequence or at least delay it. When speech can both initiate and inhibit others' behavior, it becomes an instrument for regulating others' behavior according to rules and instructions. Finally, when the individual has good control of internal speech he is capable of self-regulation. According to Luria the acquisition of speech not only extends the content of a child's thought

processes it also involves a re-organization of all his basic mental processes. Thus, the abbreviated internal subvocal speech comes to be an invariable part of the thought-processes.

Vygotsky (1962) postulates a reciprocal relationship between thought and affect. According to him any attempts to segregate the thought processes from personal impulses of the thinker would be an exercise in futility. There exists, in man, a dynamic system of meaning in which the affective and the intellectual unite.

... every idea contains a transmuted affective attitude toward the bit of reality to which it refers (Vygotsky, 1962, p. 8).

The experimental work of Vygotsky's pupils, along with many other Russian investigators, supplements and details the general Pavlovian position regarding the speech system -- particularly the abbreviated internal subvocal aspect -- as a mode of regulating human behavior. It follows that human beings can, and often do, sustain their emotions through the internal self-verbalizations.

#### Basic Behavioral Position

It can be argued that the traditional S-R formulations of symbolic processes were forerunners of the current mediation models (Goss, 1961). For example, most contemporary behaviorists have come to accord at least some importance to the role of mediating variables -- such as the implicit

verbal responses. They suggest that inferred mediating processes may act as stimuli for other responses. This property of self-stimulation is the chief characteristic of covert verbal responses. According to Skinner (1957), verbal symbols may acquire the property of evoking emotional reactions.

The speaker's own verbal behavior automatically supplies stimuli for echoic, textual, or intraverbal behavior, and these in turn generate stimuli for further responses (p. 439).

Skinner (1957) also admits to the possibility of "subaudible speech of unclear dimensions (p. 438)", as affecting the behavior.

Thus, the behavioral position today can be interpreted as recognizing the role of covert speech in generating or at least influencing human behavior. It follows that Ellis' formulation concerning a close link between speech and behavior can be viewed as parallel to the general behavioral position.

#### General Semantics Stand

General Semantics is a theory of how one can act a little more sanely by talking to oneself a little more sanely (Hayakawa, 1965). According to the general semanticists the most important kind of talking we ever do is that which we do to ourselves about ourselves. What happens as a result of our language habits is that we sabotage ourselves: the crippling effects of the so-called verbal filters. The fact

is that the way in which we define something determines, in large measure, the way in which we react to it.

Maladjusted people almost invariably express their unfortunate condition in dogmatic terms from which they refuse to be shaken in spite of the contrary evidence. Evaluational rigidity is indeed a widespread problem in our culture (Hayakawa, 1965). Behavior modification, therefore, demands that one's faulty beliefs and evaluations be seriously challenged. This task can be best accomplished through a skillful analysis leading the person to examine his basic premises.

In short, maladjustment stems from and is maintained by one's underlying structural assumptions of elementalism, absolutism, and either-orishness, etc. According to Ellis' (1963) ABC theory, it is almost always B -- the individual's interpretation of A -- that actually leads to the reaction C. Thus, the therapeutic approach proposed by Ellis is quite consistent with the essential argument outlined in this section.

### Group Psychotherapy

As far as can be ascertained, research evidence directly bearing on the rational group approach to counseling under-achievers does not exist. In this section some general evidence is considered. This evidence is derived from both the theoretical and empirical literature related to counseling

in the group setting.

It can be argued that contemporary psychology views human personality to be embedded in the social matrix in which man lives. For many years now, there have been efforts to formulate techniques of group psychotherapy. A plethora of group approaches have been formulated to serve people with problems (Scheidlinger, 1968). These attempts have been primarily directed toward enlisting the forces of group dynamics to contribute to therapeutic process.

Group psychotherapy in the sixties has achieved general acceptance as a valid and viable clinical approach (Scheidlinger, 1968). However, a precise theoretical underpinning, which would explain what actually transpires in therapeutic groups, is lacking. It is being increasingly suggested that the therapeutic group conceived as a miniature society may become a source of collective reward and punishment. The group may enact norms to guide and control the actions of its members. Also, the group may provide a shelter of collective support for the insecure member while he works his way toward better adjustment to the less sensitive world "out there".

Concerning the conceptualizations of the developmental phases in group therapy Scheidlinger (1968) has this to say:

There appears to be an over-all implied consensus in the various reports, however, that as treatment progresses, individual perceptions and attitudes are likely to move in general from primitive and irrational to more realistic levels (p. 179).

The primary aim of various approaches to group psychotherapy is to re-educate the disturbed individual toward more successful adaptation to the social context in which he lives. According to Hunt (1969):

... most group psychotherapists are more concerned with stripping away social pretense, revealing real feelings, showing the patient how he has been behaving and getting him to test new ways of behaving in a social setting (p. 176).

Given the candid atmosphere of the group and the honest feedback on how a person's behavior appears to others, the members often begin to question their underlying assumptions and consequently change in behavior.

Since the effectiveness of group psychotherapy is largely dependent upon social interaction, the group size may prove critical to the therapeutic process. Groups containing fewer than six members tend to be encumbered with inertia and complacency, but groups of more than ten do not permit extensive interaction and allow passive members to become lost in the crowd (Luchins, 1964).

According to some authors (Luchins, 1964), homogeneity of background of members (in terms of sex, age, intelligence, etc.) appears to facilitate the therapeutic process, perhaps largely because it enhances identification of each member with the group as a system.

The function of the therapist himself, in the role of group leader, is increasingly being looked upon as a source



contributing to the group's movement toward its therapeutic goals. Perhaps the single most important development of recent years has been an increasing awareness of the potency of the therapist in the therapeutic process (Stieper & Wiener, 1965).

As to the effectiveness of group counseling, recent experiments evaluating the results of small group counseling within educational settings have produced divergent results (Mandel, Roth, and Berenbaum, 1968).

Dickenson and Truax (1966) attempted to evaluate the impact of time-limited group counseling upon college under-achievers. The findings offered support for the effectiveness of group counseling in the academic recovery of underachieving college students.

Schaefer (1968) investigated the effect of group counseling on the academic performance of low-achieving public school students. The results of this study indicated significant improvement in grade-point averages of the counseled students.

However, when the effect of group counseling on college students placed on academic probation was the subject of study by Berg (1968), no significant changes were noticed with regard to academic achievement.

If the attempts at altering achievement patterns via group counseling have met with inconsistent results, then perhaps the questions asked have been too general. Instead

of asking: "Does group counseling work with underachievers(?)"; researchers should address themselves to this question: "What type of group counseling works best with what type of academic underachievers(?)".

The major thrust of the present study was to evaluate the effectiveness of a specific kind of group counseling (rational group approach) with a specific type of subjects (anxious underachievers).

#### Irrational Ideas and Anxiety

That anxiety accompanies irrational beliefs was one of the basic assumptions of this study. There have been a number of rather successful attempts to establish a relationship between irrationality and anxiety. Most of the anxiety research employed an anxiety model which assumed that the effects of anxiety depend on threat characteristics of the task situation.

Rychlak and Lerner (1965) found high anxious subjects to be far more expectant of success than their low anxious counterparts. This "generalized expectancy" on the part of high anxious students reflects an attitude of unrealistically high standards. Ellis (1963) would view such "idealized image" as irrational.

Reidel's (1965) study suggests that anxiety affects judgement adversely. Working on simple psychological tasks (length of lines) Reidel found that his high anxious group

preferred not to risk errors regardless of the insignificance of the task. This study suggests that the anxious subjects had irrational ideas such as: "that one must be thoroughly competent, adequate, and achieving in all possible respects if one is to consider oneself worthwhile".

More recently, Taft (1968) investigated the irrationality-anxiety relationship. Using various measures of anxiety, Taft successfully demonstrated a strong association between irrational ideas and anxiety.

#### The Anxiety-Achievement Relationship

The purpose of this section is to establish a relationship between test anxiety and performance. It has been proposed that anxiety is a major component in the maintenance of underachievement (Bricklin and Bricklin, 1967).

Using their Test Anxiety Scale (TAS), Sarason and Mandler (1952) found that high anxiety interfered with test performance while low anxiety appeared to prove helpful.

Raph, Goldberg, and Passow (1967) had this to say:

Anxiety, then, may contain some important clues to the disparity between ability and performance which seems on the surface to be inexplicable (p. 188).

Stevenson's (1967) survey also suggested that anxiety influences learning and performance. Finally, Alpert and Haber (1960) have established achievement anxiety as a variable of which test performance is a function. It can be concluded that anxiety is one of the correlates of

underachievement.

### SUMMARY

Highly pertinent to the present study are the researches of Sarason and Mandler (1952) and Lafferty (1963).

Sarason and Mandler (1952) have hypothesized that:

When anxiety has been learned as a response to situations involving intellectual achievement (e.g., test situations), two types of responses will tend to be evoked: (a) responses which are not task-relevant; self-centered feelings of inadequacy, attempts at leaving the situation, etc., and (b) task-relevant responses which reduce the anxiety by leading to completion of the task (p. 813).

It follows that, for individuals who possess irrational beliefs such as a dire need to succeed, test anxiety will lead to poor performance through task-irrelevant responses.

Lafferty (1963, p. 45), working on "values that defeat learning", reported that underachievers:

- (1) Felt they could simply improve by worrying more about school.
- (2) Were constantly striving for the goal of having everyone approve of them all the time for everything.
- (3) Seemed convinced that they could not, by their own efforts, alter the course of a failing experience.

Lafferty concluded that the greater the degree and number of irrational ideas, the more the extent of avoidant

behavior and hence the lower the performance.

These findings are highly congruent with Ellis' basic assumption that human beings usually sustain emotional arousal or anxiety, and perform inadequately, as a result of irrational and illogical thinking. The precise procedures used to test the plausibility of Ellis' theory have been described in the following chapter.

#### HYPOTHESES

The foregoing discussion suggests that rational group therapy should help modify patterns of academic underachievement. It is hypothesized that underachievers exposed to rational group counseling would show: (1) greater reduction in irrational beliefs, (2) greater reduction in test anxiety, and (3) greater improvement in school marks, than would underachievers exposed to teaching of rational ideas, teaching of study skills, and no treatment.

## CHAPTER III

### RESEARCH DESIGN AND PROCEDURE

This study was designed to investigate the effectiveness of rational group counseling in helping anxious high school underachievers.

The fundamental purpose of any research attempt is to obtain data which will provide the clearest and most convincing test of the hypotheses. The evidence should be persuasive to all those who accept the established rules of research. In order to achieve interpretable comparisons between treatments, the Pretest-Posttest Control Group Design (Campbell and Stanley, 1966) was selected as the major methodology for this investigation.

### THE UNIVERSE

The source of data for this study was limited to 539 students enrolled in grade ten at Bonnie Doon Composite high school, Edmonton, Alberta, during 1968-69.

### STUDY SAMPLE

#### Identification of Anxious Underachievers

First, the total scores on the School and College Aptitude Test (SCAT)\* of 539 students, for whom records were available at the school, were normalized and converted into T scores.

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\*SCATS were administered to the students at the end of grade nine.

Then, marks for four major courses (English, Social Studies, Mathematics, and Science) received on the mid-term (January) report cards were summed for each student and the aggregate scores were normalized and converted into T scores with a mean of 50 and standard deviation of 10.

An underachiever was then defined as a student whose T score for aggregate achievement fell 8\* or more standard points below the T score for his ability.

This procedure provided 125 underachievers. Of these 122 were tested for test anxiety on the Achievement Anxiety Test (AAT) by Alpert and Haber (1960). The criterion arbitrarily established for the identification of anxious students required an individual to score 51 and above on the Alpert and Haber Scale.

Eighty-four students met the combined anxiety and underachievement criteria. Table 1 presents the summary picture of the subjects finally chosen for this study.

TABLE 1  
DESCRIPTION OF STUDENTS

| Total<br>Number<br>of<br>Students | <u>Underachievers<br/>Identified</u> |       |       | <u>Anxious Under-<br/>achievers Identified</u> |       |       |
|-----------------------------------|--------------------------------------|-------|-------|--|-------|-------|
|                                   | Boys                                 | Girls | Total | Boys   | Girls | Total |
| 539                               | 89                                   | 33    | 122   | 57   | 27    | 84    |

\*This is an arbitrary number used in order to provide an adequate sample size.

The ratio of boys to girls among the underachievers finally chosen for this study was roughly 2:1. This ratio was in line with the related literature (Zingle, 1965). Zingle's (1965) Irrational Ideas Inventory (I-I Inventory) was administered to the 84 anxious underachievers selected for this study.

#### Assignment to Experimental Groups

All students who met the selection criteria were invited to participate in a voluntary "academic recovery program". They were told that the primary purpose of the program was to assist the grade ten students to adjust to high school life in order that they might utilize their educational opportunities more effectively. It was further explained that the program would be carried out through nine small group meetings conducted once a week for approximately 50 minutes each. All those contacted volunteered to take part in the study.

The 84 anxious underachievers selected were divided into 12 sub-groups of seven each. Administrative and scheduling difficulties prevented complete randomization. Specifically, the investigator was asked to confine the membership of any given sub-group to a maximum of three classes, if possible. However, the three counselors involved in the study chose three sub-groups each, at random. Further, the treatments were assigned at random. Thus, a partial



randomization was achieved. Nine sub-groups, i.e. 63 subjects were thus taken care of. The remaining three sub-groups, i.e. 21 subjects were pooled together and labelled "control".

The pre-treatment scores concerning actual academic achievement, irrational ideas, and test anxiety, for all the subjects of this study, were used to ascertain the comparability of the four treatment groups formed. A comparison of the four experimental groups on significant variables, e.g. actual academic achievement, irrational beliefs, and test anxiety, are given in Tables 2 to 7.

TABLE 2  
MEANS AND STANDARD DEVIATIONS OF THE FOUR GROUPS  
FOR ACTUAL ACHIEVEMENT

| Group | A      | B      | C      | D      |
|-------|--------|--------|--------|--------|
| Means | 222.62 | 214.05 | 210.48 | 215.48 |
| S.D.  | 35.09  | 31.81  | 24.80  | 24.13  |

In order to determine if the observed means as per Table 2 were different, an analysis of variance was performed. Table 3 depicts the results of this further analysis.

TABLE 3  
SUMMARY OF ANALYSIS OF VARIANCE OF THE FOUR GROUPS  
FOR ACTUAL ACHIEVEMENT

| Source of Variation | Sums of Squares | Degrees of Freedom | Variance Estimate | Obtained F. Value | Prob-ability |
|---------------------|-----------------|--------------------|-------------------|-------------------|--------------|
| Between             | 1636.00         | 3                  | 545.33            | 0.63              | 0.59         |
| Within              | 68805.00        | 80                 | 860.06            |                   |              |

Homogeneity of Variance:  $p = 0.2609$ , N.S.

It may be noted that the data yielded no significant differences among the means or variances of four groups in terms of actual academic achievement.

TABLE 4  
MEANS AND STANDARD DEVIATIONS OF THE FOUR GROUPS  
FOR PRE-TREATMENT SCORES ON THE I-I INVENTORY

| Group | A      | B      | C      | D      |
|-------|--------|--------|--------|--------|
| Means | 371.67 | 362.57 | 355.86 | 367.19 |
| S.D.  | 28.90  | 40.05  | 17.18  | 28.04  |

An analysis of variance was performed in order to determine whether or not the observed means for the four groups were different. Table 5 shows the results of this procedure.

TABLE 5

SUMMARY OF ANALYSIS OF VARIANCE OF THE FOUR GROUPS  
FOR PRE-TREATMENT SCORES ON THE I-I INVENTORY

| Source of Variation | Sums of Squares | Degrees of Freedom | Variance Estimate | Obtained F. Value | Probability |
|---------------------|-----------------|--------------------|-------------------|-------------------|-------------|
| Between             | 2873.00         | 3                  | 957.67            | 1.09              | 0.36        |
| Within              | 70413.00        | 80                 | 880.16            |                   |             |

Homogeneity of Variance:  $p = 0.0049$ .

The data yielded no significant differences among the means of irrational beliefs for the four groups. However, the test for heterogeneity of variance showed that the variances were not homogeneous.\*

TABLE 6

MEANS AND STANDARD DEVIATIONS OF THE FOUR GROUPS  
FOR PRE-TREATMENT SCORES ON THE AAT

| Group | A     | B     | C     | D     |
|-------|-------|-------|-------|-------|
| Means | 56.05 | 57.00 | 59.19 | 57.86 |
| S.D.  | 4.52  | 4.24  | 6.06  | 4.79  |

\*In view of the heterogeneity of variances, it was decided that an analysis of covariance would also be performed on the pre-post difference scores at the outcome stage.

In order to determine if the observed means for the four groups were different, an analysis of variance was performed. Table 7 presents a summary of this analysis.

TABLE 7

SUMMARY OF ANALYSIS OF VARIANCE OF THE FOUR GROUPS  
FOR PRE-TREATMENT SCORES ON THE AAT

| Source of Variance | Sums of Squares | Degrees of Freedom | Variance Estimate | Obtained F. Value | Prob-ability |
|--------------------|-----------------|--------------------|-------------------|-------------------|--------------|
| Between            | 112.12          | 3                  | 37.38             | 1.52              | 0.22         |
| Within             | 1962.87         | 80                 | 24.54             |                   |              |

Homogeneity of Variance:  $p = 0.3852$ , N.S.

The data yielded no significant differences among the means or variances of four groups in terms of test anxiety.

Thus, the procedure described so far provided four equal groups: A, B, C and D. These groups were found comparable on actual academic achievement, irrational beliefs, and test anxiety.

#### TREATMENT CONDITIONS

The whole study was conducted within the framework of the Guidance department of Bonnie Doon high school. The three counselors who participated in this study were members of the department. Two of the counselors had master's degrees in Education, and the third was working toward the graduate

diploma in counseling. Their experience in counseling ranged from three to ten years. Each of the counselors worked with three sub-groups across treatments.

### Counselor Orientation Procedure

The investigator discussed the treatment methods with the counselors over two sessions of approximately two hours each. Treatments manual (Appendix A) dealing with the rational group counseling, teaching of rational ideas, and teaching of study skills, was made available to the counselors. At least once a week, throughout the duration of the study, the investigator was available in school in order to advise the counselors on any special difficulty they might be encountering.

Nine weekly sessions of approximately 50 minutes each were conducted over the period April - June, 1969. All meetings were held during school time. Some of these sessions were recorded on magnetic tapes.

Two qualified and independent judges were asked to listen to the audio tapes. These independent auditors confirmed the validity of the three treatment methods used. It was, therefore, concluded that the intent of rational group counseling, teaching of rational ideas, and teaching of study skills was attained.

### A. Rational Group Therapy

The three sub-groups  $A_1$ ,  $A_2$ , and  $A_3$ , each consisted

of seven students and one counselor. The subjects were counseled according to Ellis' Rational-Emotive Therapy approach applied in a group setting. The details of rational group therapy are outlined in Chapter II.

Students were encouraged to bring up their personal problems regardless of their nature. Topics most favored by the students included individual academic difficulties, relations with teachers and parents, and difficulties such as the problems of personal identity.

The counselors attempted to stimulate group discussion, to facilitate the utilization, by the group, of ideas presented by individual members, as well as to provide relevant feedback. Group members were confronted with their specific irrational ideas wherever it was appropriate to do so.

Essentially, this approach (Appendix A) could be called maieutic where the counselor became the Socratic questioner and responder. Instead of retiring to the rear, he continued throughout the discussion to have a very active role. The counselor probed, directed, stimulated, enticed, responded, channeled, and synthesized the on-going issues. This was intended to drive the discussants back into a corner (so to speak) to examine their prejudices, to define and defend their positions, to analyze their biases and preconceived notions, and, hopefully, learn and change. The other group members were expected to begin acting as auxiliary therapists and they did.

Of course, beside being a challenger, the counselor continued to be a relation-builder through active listening and constructive but supportive summarizings.

The average number of counseling sessions with each sub-group was nine. Some of these sessions were recorded on magnetic tapes. These audio tapes were listened to by the judges and declared valid. During the second half of the last session, the students were administered the I-I Inventory and the AAT, once again.

#### B. Teaching of Rational Ideas

The teaching of the concepts of rationality and irrationality as they apply to Ellis' eleven major irrational ideas was confined to the treatment group, designated as Group B. Group B, it will be recalled, was constituted of three sub-groups ( $B_1$ ,  $B_2$ ,  $B_3$ ), each consisting of seven students and a counselor.

In preparation for the standardized teaching of the rational-irrational idea content, the three counselors attended two discussion periods, heretofore mentioned under the heading: Counselor Orientation Procedure.

With the B group, each counselor was instructed by the investigator to advance the content as per the hand-out sheet (included in Appendix A). The counselors were asked to refrain from involving the students in personal applications of the content, as far as possible. Instead, they

were consciously to teach these concepts as a non-personal theory of behavior.

The essential difference between Group A and Group B was that the subjects in Group A were shown precisely what the illogical links in their internalized sentences were and how they could re-think those and similar other sentences. On the other hand, the subjects in Group B were mainly encouraged to learn and understand Ellis' rational ideas along with their rational counterparts, in a somewhat non-personal manner.

Once again, three audio tapes were taken at random intervals for the sub-groups. The two independent monitors, alluded to previously, confirmed that the intent of teaching the content in the desired non-personal manner was attained.

In the end, the subjects were administered the I-I Inventory and the AAT, once again.

### C. Teaching of Study Skills

The three sub-groups  $C_1$ ,  $C_2$ , and  $C_3$  each consisted of seven students and a counselor. The subjects were exposed to the teaching of study-skills.

The notion that improved study-skills lead to increased academic achievement is intuitively appealing. Academic performance appears to be a function of the ability to develop a set of study habits and attitudes. It is often said that underachievers lack appropriate study skills.



They are reported to have difficulties with subordinating personal needs to demands for study (Haywood, 1968). Some researchers have found a significant link between poor study habits and underachievement (Brown and Dubois, 1964; Frost, 1965). If study mechanics are important determiners of achievement, then the teaching of study skills should improve achievement.

To standardize teaching in each sub-group ( $C_1$ ,  $C_2$ ,  $C_3$ ) the counselors met with the investigator to design a program to communicate study-skills information. The books, "You Can Get Better Grades" and "Your Study Skills" were agreed upon as student texts.

A course outline (provided in full in Appendix A) was developed by the investigator as a result of the initial meetings with the counselors. Each counselor was then instructed to follow the sequencing and topics as contained in the "course outline". The main topics to be discussed were: schedule and conditions for study; listening and note taking; skimming and searching; summarizing; remembering and practicing; preparing for tests; and writing of reports.

Once again, these sessions were subjected to the tape monitoring procedure outlined previously. The independent auditors confirmed that study-skills content was taught by all counselors.

During the last session, the subjects were again administered the I-I Inventory and the AAT.

#### D. The Control Group

The control group subjects were told that more students had volunteered than could be handled during the remainder of the current year, and that they would be offered an opportunity to participate in the program during the next year provided they were still interested.

School counselors were asked to refrain, as far as possible, from providing any assistance to members of this group which could be construed as counseling and/or special teaching. No contact was made with these people by the counseling staff, during the experimental period. Of course, pre- and post-tests on irrational ideas and test anxiety were administered to them as they were to the other three groups.

Consultations with the counseling staff at the end of the treatment period confirmed the plan as outlined above. Therefore, it can be stated with a fair degree of confidence that the members of the control group were not exposed to any special treatment.

#### Summary of Treatment Procedures

The following table depicts the program which was employed in the conduct of the study.

TABLE 8  
SESSION BY SESSION DESCRIPTION OF TREATMENT  
PROCEDURES

| Groups<br>Sub-<br>groups | A                                |                |                | B                                      |                |                | C                                       |                |                | D                  |
|--------------------------|----------------------------------|----------------|----------------|--|----------------|----------------|---|----------------|----------------|--------------------|
|                          | A <sub>1</sub>                   | A <sub>2</sub> | A <sub>3</sub> | B <sub>1</sub>                         | B <sub>2</sub> | B <sub>3</sub> | C <sub>1</sub>                          | C <sub>2</sub> | C <sub>3</sub> |                    |
| Session 1                | Introduction                     |                |                | Introduction                           |                |                | Introduction                            |                |                | Subjects           |
| Session 2                | Rational-<br>group<br>counseling |                |                | I-I 1 (see<br>Appendix A)              |                |                | Schedule and<br>conditions<br>for study |                |                | were<br>told       |
| Session 3                | Rational-<br>group<br>counseling |                |                | I-I 2 and 3                            |                |                | Listening and<br>note-taking            |                |                | they were<br>not   |
| Session 4                | Rational-<br>group<br>counseling |                |                | I-I 4 and 5                            |                |                | Skimming and<br>searching               |                |                | required<br>as too |
| Session 5                | Rational-<br>group<br>counseling |                |                | I-I 6                                  |                |                | Summarizing                             |                |                | many had<br>volun- |
| Session 6                | Rational-<br>group<br>counseling |                |                | I-I 7 and 8                            |                |                | Remembering<br>and<br>practicing        |                |                | teered.            |
| Session 7                | Rational-<br>group<br>counseling |                |                | I-I 9 and 10                           |                |                | Preparing<br>for tests                  |                |                |                    |
| Session 8                | Rational-<br>group<br>counseling |                |                | I-I 11                                 |                |                | Report<br>writing                       |                |                |                    |
| Session 9                | Summary and<br>tests             |                |                | Summary of<br>major ideas<br>and tests |                |                | Summary and<br>tests                    |                |                | Tested             |

## CRITERIA MEASURES

The following measures were adopted to evaluate the relative success of the different treatments administered under this investigation.

### The Irrational Ideas Inventory (I-I Inventory)

The I-I Inventory is a research instrument developed by Zingle (1965). This instrument is based on the eleven major irrational ideas (beliefs) which Ellis (1963) suggests are basic to, and sustaining of, maladaptive behavior.

The I-I Inventory consists of 122 items designed to measure the degree of irrationality of the subjects. Responses are marked on a 5-point scale, ranging from strong agreement to strong disagreement and are weighted 5, 4, 3, 2, 1 respectively. Total scores are obtained by simple summing of weights. In order to guard against possible confounding of the scores due to response set, negatively worded items, weighted in reverse order, are randomly interspersed.

Test-retest reliability (N=91), over a five week interval, is .80. Content validity as reported by the test author ranged from .75 to .85 (Zingle, 1965, p. 44).

Essentially, what Zingle (1965) showed was that underachievers score higher on I-I Inventory than average achievers. I-I Inventory has received further support through several studies. For example, Conklin (1965) using

a shorter version of this instrument with high school students, has demonstrated support for Zingle's thesis. Hoxter (1967) using an edited version of I-I Inventory has reported positive relationship between irrationality and behavior problems at school.

It can be concluded that underachievers possess irrational beliefs to a greater degree than the average students. Furthermore, the I-I Inventory is sensitive to the changes in irrational beliefs.

#### The Achievement Anxiety Test (AAT)

Alpert and Haber (1960) have shown that specific anxiety scales are more often significantly correlated with academic performance measures than are the general anxiety scales. The implication being that the former are better predictors of academic achievement than the latter.

In order to determine the effect of anxiety on performance, Alpert and Haber produced a new type of anxiety scale. This was designed primarily as a measure of test anxiety. The Achievement Anxiety Test (AAT) consists of two independent scales: a facilitating scale of nine items based on the prototype -- "Anxiety helps me in my performance during tests"; and a debilitating scale of ten items based on the prototype -- "Anxiety interferes with my performance during tests". The two scales are administered as one, the items being randomly mixed. A subject answers each item on

a 5-point scale, indicating the degree to which the item applies to him.

The originally reported test-retest reliabilities, over an eight-month period, are .75 and .76 for the facilitating scale and debilitating scale respectively. In general, the authors found that the scores on the facilitating scale were positively correlated with actual grade-point average, whereas scores on the debilitating scale were significantly negatively correlated with the grade-point average.

It was further found that the incorporation of the items designed to measure facilitating anxiety into a scale which already effectively measured debilitating anxiety can, in fact, significantly increase the prediction of academic performance scores. Dember, Nairne, and Miller (1963) later confirmed these findings.

### School Marks

School marks provided the principle criterion against which effects of different treatments were evaluated. The differences between the pre- and post-treatment aggregate achievement scores, for four major courses (English, Social Studies, Mathematics, and Science) were used as measures of change in academic achievement.

Since they represent chiefly an assessment of current performance, school marks have been found to be sensitive

indicators of students' academic growth (Calhoun, 1956). Furthermore, with all of their weaknesses, marks still are the accepted gauge of academic success or failure.

#### FOLLOW-UP

A second check (follow-up) of test anxiety and school marks was made five months after the experiment was over (November 1969). The main purpose for doing this was to assess any delayed reaction to the treatments.

#### HYPOTHESES TO BE TESTED

Immediately after the termination of treatment:

- (1) Subjects counseled according to rational group therapy orientation (Group A) will show greater reduction in the degree of irrational beliefs than would the subjects exposed to teaching of rational ideas (Group B), teaching of study skills (Group C), and no treatment (Group D).
- (2) Subjects counseled according to rational group therapy orientation (Group A) will show greater reduction in test anxiety than would the subjects exposed to teaching of rational ideas (Group B), teaching of study skills (Group C), and no treatment (Group D).

- (3) Subjects counseled according to rational group therapy orientation (Group A) will show greater improvement in school marks than would the subjects exposed to teaching of rational ideas (Group B), teaching of study skills (Group C), and no treatment (Group D).

Further, five months after the termination of treatment:

- (4) Changes between the pre- and follow-up-treatment scores on AAT would be significantly in favor of the subjects exposed to rational group counseling (Group A), and
- (5) Changes between the pre- and follow-up-treatment measures concerning school marks would be significantly in favor of the subjects exposed to rational group counseling (Group A).



## CHAPTER IV

### STATISTICAL ANALYSIS AND RESULTS

The feedback from pre-treatment, post-treatment as well as the follow-up measurements made in this study was subjected to statistical tests in order to determine the tenability of the hypotheses postulated.

Pretest-posttest and pretest-follow-up test gain (or difference) scores for each group were used for statistical tests of significance. Simple one-way analysis of variance was the major technique employed. However, analysis of covariance, with pretest scores as the covariate, was also used once. Specifically, Newman-Keuls comparisons were preferred over the common "critical ratio" or  $t$  tests.

For the purposes of statistical analysis, the subgroups in each category were combined, thus giving an  $n$  of 21 for each treatment.

#### THE PRETEST-POSTTEST DIFFERENCES

##### Change in Irrational Beliefs

The means and standard deviations of the differences between pre- and post-treatment scores on I-I Inventory were calculated for each group and are presented in Table 9.

TABLE 9

MEANS AND STANDARD DEVIATIONS OF THE DIFFERENCES BETWEEN  
PRE- AND POST-TREATMENT SCORES ON THE I-I  
INVENTORY FOR ALL FOUR GROUPS

| Group | A      | B      | C     | D     |
|-------|--------|--------|-------|-------|
| Means | -14.19 | -12.57 | -7.67 | +2.48 |
| S.D.  | 20.86  | 27.25  | 15.71 | 16.05 |

An analysis of variance for the score differences was performed to ascertain the significance of differences between the means of the four groups. Table 10 shows the results of the analysis of variance of the differences.

TABLE 10\*

SUMMARY OF ANALYSIS OF VARIANCE OF THE DIFFERENCES BETWEEN  
PRE- AND POST-TREATMENT SCORES ON THE I-I  
INVENTORY

| Source of<br>Variance | Sums of<br>Squares | Degrees<br>of<br>Freedom | Variance<br>Estimate | Obtained<br>F. Value | Prob-<br>ability |
|-----------------------|--------------------|--------------------------|----------------------|----------------------|------------------|
| Between               | 3550.70            | 3                        | 1183.57              | 2.81                 | 0.04             |
| Within                | 33630.29           | 80                       | 420.45               |                      |                  |

\* In order to get better precision in the estimate of the "error"(variance) terms than is possible through simple analysis of variance, analysis of covariance was also performed, using pre-treatment scores on the I-I Inventory as a covariate. The F. Value thus obtained was still significant at  $p = .03$ .

As the F-ratio was significant beyond 5 per cent level of significance, separate tests for pairs of means were called for.

The Newman-Keuls procedure for making comparisons between all possible pairs of ordered means was used to test the statistical significance between treatment group means. Table 11 shows the results of this procedure.

TABLE 11  
SIGNIFICANCE OF DIFFERENCES BETWEEN MEANS OF THE  
DIFFERENCES BETWEEN PRE- AND POST-TREATMENT  
SCORES ON THE I-I INVENTORY

| Groups | Differences Between Means | Probability |
|--------|---------------------------|-------------|
| A - B  | 1.62                      | N.S.        |
| A - C  | 6.52                      | N.S.        |
| A - D  | 16.67                     | $p < .05$   |
| B - C  | 4.90                      | N.S.        |
| B - D  | 15.05                     | N.S.        |
| C - D  | 10.14                     | N.S.        |

Using an alpha level of 0.05, the difference between the means for Group A and Group D was found to achieve statistical significance. Thus, the hypothesis that Group A would show the greatest reduction in the degree of irrational beliefs was partially upheld.

### Change in Test Anxiety

The means and standard deviations of the differences between pre- and post-treatment test anxiety scores were calculated for each group and are presented in Table 12.

TABLE 12  
MEANS AND STANDARD DEVIATIONS OF THE DIFFERENCES  
BETWEEN PRE- AND POST-TREATMENT SCORES ON THE  
AAT FOR ALL FOUR GROUPS

| Group | A     | B     | C     | D     |
|-------|-------|-------|-------|-------|
| Means | -0.90 | -1.62 | -1.90 | +1.09 |
| S.D.  | 6.53  | 5.36  | 6.20  | 4.82  |

An analysis of variance was performed on the differences between pre- and post-treatment scores on the AAT. Table 13 shows the results of the analysis of variance of the differences.

TABLE 13  
SUMMARY OF ANALYSIS OF VARIANCE OF THE DIFFERENCES  
BETWEEN PRE- AND POST-TREATMENT SCORES ON THE AAT

| Source of Variance | Sums of Squares | Degrees of Freedom | Variance Estimate | Obtained F. Value | Prob-ability |
|--------------------|-----------------|--------------------|-------------------|-------------------|--------------|
| Between            | 115.29          | 3                  | 38.43             | 1.16              | 0.33         |
| Within             | 2658.38         | 80                 | 33.23             |                   |              |

As the F-ratio was not significant, tests of the separate pairs of means were not necessary. Thus, the hypothesis that Group A would show the greatest reduction in test anxiety was not upheld.

#### Change in Achievement

The means and standard deviations of the differences between pre- and post-treatment aggregate achievement scores were calculated for each group and are presented in Table 14.

TABLE 14

MEANS AND STANDARD DEVIATIONS OF DIFFERENCES BETWEEN  
PRE- AND POST-TREATMENT AGGREGATE ACHIEVEMENT SCORES  
FOR ALL FOUR GROUPS

| Group | A      | B     | C     | D     |
|-------|--------|-------|-------|-------|
| Means | +10.48 | +2.62 | -1.19 | -1.67 |
| S.D.  | 45.96  | 13.47 | 23.07 | 18.46 |

An analysis of variance of the aggregate score differences was performed to ascertain the significance of differences observed. A summary of the analysis of variance is presented in Table 15.

TABLE 15

SUMMARY OF ANALYSIS OF VARIANCE OF THE DIFFERENCES  
BETWEEN PRE- AND POST-TREATMENT AGGREGATE  
ACHIEVEMENT SCORES

| Source of Variance | Sums of Squares | Degrees of Freedom | Variance Estimate | Obtained F. Value | Prob-ability |
|--------------------|-----------------|--------------------|-------------------|-------------------|--------------|
| Between            | 1986.61         | 3                  | 662.20            | 0.84              | 0.48         |
| Within             | 63338.10        | 80                 | 791.73            |                   |              |

As the F-ratio was not significant, tests of the separate pairs of means were not needed. Thus, the hypothesis that Group A would show the greatest improvement in school marks was not upheld.

THE PRETEST-FOLLOW-UP DIFFERENCES

Change in Test Anxiety

The means and standard deviations of the differences between pre- and follow-up-treatment test anxiety scores were calculated for each group and are presented in Table 16.

TABLE 16

MEANS AND STANDARD DEVIATIONS OF THE DIFFERENCES BETWEEN  
PRE- AND FOLLOW-UP-TREATMENT SCORES ON THE AAT FOR ALL  
FOUR GROUPS

| Group | A     | B     | C     | D     |
|-------|-------|-------|-------|-------|
| Means | -4.00 | -2.17 | -6.00 | -0.39 |
| S.D.  | 5.16  | 6.12  | 7.01  | 6.81  |

An analysis of variance was performed on the differences between pre- and follow-up-treatment scores. A summary of the analysis of variance is presented in Table 17.

TABLE 17\*  
SUMMARY OF ANALYSIS OF VARIANCE OF THE DIFFERENCES  
BETWEEN PRE- AND FOLLOW-UP-TREATMENT SCORES ON  
THE AAT

| Source of Variance | Sums of Squares | Degrees of Freedom | Variance Estimate | Obtained F. Value | Probability |
|--------------------|-----------------|--------------------|-------------------|-------------------|-------------|
| Between            | 306.33          | 3                  | 102.11            | 2.58              | 0.06        |
| Within             | 2690.78         | 68                 | 39.57             |                   |             |

\*Ten subjects were lost due to school leaving or school transfer. Two subjects were sick at the time.

As the F-ratio was not significant, separate tests for pairs of means were not required. Thus, the hypothesis that Group A would show the greatest reduction in test anxiety was not upheld.

#### Change in Achievement

The means and standard deviations of the differences between pre- and follow-up-treatment aggregate achievement scores were calculated for each group and are presented in Table 18.

TABLE 18

MEANS AND STANDARD DEVIATIONS OF DIFFERENCES BETWEEN  
PRE- AND FOLLOW-UP-TREATMENT AGGREGATE ACHIEVEMENT  
SCORES FOR ALL FOUR GROUPS

| Groups | A      | B     | C     | D     |
|--------|--------|-------|-------|-------|
| Means  | +30.79 | -1.39 | +6.37 | +5.56 |
| S.D.   | 36.56  | 24.12 | 21.59 | 35.31 |

An analysis of variance was performed on the differences between pre- and follow-up treatment aggregate scores. Table 19 shows the results of the analysis of variance of the differences between group means.

TABLE 19\*

SUMMARY OF ANALYSIS OF VARIANCE OF THE DIFFERENCES  
BETWEEN PRE- AND FOLLOW-UP-TREATMENT AGGREGATE  
ACHIEVEMENT SCORES

| Source of Variance | Sums of Squares | Degrees of Freedom | Variance Estimate | Obtained F. Value | Probability |
|--------------------|-----------------|--------------------|-------------------|-------------------|-------------|
| Between            | 11129.98        | 3                  | 3709.99           | 4.09              | p < .01     |
| Within             | 63538.31        | 70                 | 907.69            |                   |             |

\* Ten subjects were lost due to school leaving or school transfer.

Since the F-ratio was significant beyond 1 per cent level of significance, separate tests for pairs of means were called for. The results of the Newman-Keuls comparisons are



shown in Table 20.

TABLE 20

SIGNIFICANCE OF DIFFERENCES BETWEEN MEANS OF THE  
DIFFERENCES BETWEEN PRE- AND FOLLOW-UP-TREATMENT  
AGGREGATE ACHIEVEMENT SCORES FOR ALL FOUR GROUPS

| Groups | Differences Between Means | Prob-ability |
|--------|---------------------------|--------------|
| A - B  | 32.18                     | $p < .01$    |
| A - C  | 24.42                     | $p < .05$    |
| A - D  | 25.23                     | $p < .05$    |
| B - C  | 7.76                      | N.S.         |
| B - D  | 6.94                      | N.S.         |
| C - D  | 0.81                      | N.S.         |

It was evident that Group A showed change which was significantly greater than the changes in Groups B, C, and D. Thus, the hypothesis that Group A would show the greatest improvement in school marks was fully supported.

## RESULTS

Based on the statistical analysis of data, the principle findings were:

(1) Anxious underachievers, exposed to rational group counseling (Group A), showed significantly greater reduction in irrational beliefs than did the subjects in the control group (Group D). Since Group A did not show significantly greater reduction in irrational beliefs

compared to Group B or Group C, Hypothesis 1 was only partially supported.

(2) The lack of significantly greater reduction in test anxiety of subjects in Group A as compared to those in the other three groups B, C, and D, lead to the conclusion that Hypothesis 2 was not upheld.

(3) The absence of any significantly greater improvement in school marks for Group A as compared to the other three groups B, C, and D, implied that Hypothesis 3 was not supported.

(4) Anxious underachievers, exposed to rational group counseling (Group A), did not show a significantly greater reduction in test anxiety as compared to those in the other three groups B, C, and D, measured five months after the end of treatment. Hypothesis 4 was, therefore, not upheld.

(5) The five months follow-up did show rational group counseling to have produced improvement in school marks significantly greater than changes through the other three treatments. This was a clear support for Hypothesis 5.

## CHAPTER V

### SUMMARY, DISCUSSION, AND IMPLICATIONS

#### SUMMARY

The primary purpose of this study was to investigate the effectiveness of rational group counseling in reducing the extent of underachievement in anxious high school students.

Specifically, it was hypothesized that at the end of the treatment, and in the case of anxiety and achievement again five months later, the subjects receiving rational group counseling (Group A) would show greater:

- (1) reduction in irrational beliefs,
- (2) reduction in test anxiety, and
- (3) improvement in school marks,

than would the subjects exposed to teaching of rational ideas (Group B), teaching of study skills (Group C), and no treatment (Group D).

It was found that, at the end of the counseling contacts, the underachievers who had undergone rational group counseling showed a significantly greater reduction in irrational beliefs than did the subjects in the control group. On the other hand, the data did not show either any significantly greater reduction in test anxiety or any significantly greater improvement in school marks between those exposed to

rational group counseling and those not so exposed.

However, a follow-up testing, five months after the termination of treatment, revealed that whereas the situation concerning test anxiety had remained essentially unchanged, the underachievers exposed to rational group counseling had shown significantly greater improvement in school marks over and above all the other groups.

It was concluded, on the basis of these findings, that rational group counseling is successful as a technique for the recovery of academic underachievers at the high school level.

#### DISCUSSION

The findings that, immediately after the termination of treatment, the rational group counseling group showed a significantly greater reduction in irrational beliefs than the no treatment group, and that five months later the underachievers exposed to rational group counseling showed significantly greater improvement in school marks than the subjects not so exposed, support the main contention of this study.

Of the three hypotheses which were not confirmed, one predicted that the changes between pre- and post-treatment measures concerning school marks would be significantly in favor of the students exposed to rational group counseling. The other two hypotheses contained the anticipation that

there would be a significantly greater reduction in test anxiety as a result of rational group counseling. These negative findings warrant some further discussion.

First of all, it is possible that a decrease in irrational beliefs, as measured by the I-I Inventory, may not immediately (perhaps necessarily) parallel an improvement in school marks (Zingle, 1965).

According to Ellis (1963) "many or most human beings normally seem to learn many things quite slowly (p. 406)." Perhaps the delayed reaction to rational group counseling can be attributed to the "time lag" that usually exists between one's thinking and one's responses. An individual need a thorough examination of, and considerable practice with, new rational formulations such as "It is not easier to avoid life's difficulties and responsibilities than to face them", before the implications become noticeable. The underachievers might have continued repeating rational ideas to themselves for months before the results were reflected in their school performance.

In order to account for the lack of significantly greater changes in test anxiety as a result of rational group counseling, the following possibilities may be considered -- all of which might profitably be explored in subsequent researches.

First, it is unsatisfactory to postulate a linear relationship between test anxiety and achievement. As Klein,

Frederiksen, and Evans (1969) found in their study "test anxiety had consistent curvilinear relationships with performance, poor performance being associated with an intermediate level of test anxiety (p. 465)."

It is possible that the average anxiety level of the sample selected for this study was not significantly high. Since norms for the population were not available, the confirmation of this possibility must await further research.

Perhaps the kind of anxiety measured in this study was not very appropriate to the school situation. In general, marks assigned for the courses taken in schools are not exclusively based on test results. Other aspects such as class work, home assignments, etc., are also considered. It is possible, therefore, that a measure of general anxiety rather than narrowly defined test anxiety may prove to be a closer correlate of underachievement in schools (Andrews, 1969). In any event, more research is required to clarify this point.

Even the validity of the Alpert-Haber test may be open to question. Although test anxiety reported on the AAT is, in general, significantly related to subsequent test performance, the relationship has been found to be sensitive to other variables (Walsh, Engbretson, and O'Brien, 1968). For example, factors such as sex and socio-economic status may have influenced the anxiety-achievement relationship.

Finally, Walsh et al. (1968), while discussing test anxiety and performance relationship, have this to say: "It is also interesting to note that the reported anxiety may not always be an influencing factor at any given testing session (p. 574)."

It is suggested that, in spite of the growing interest in test anxiety, the precise influence of test anxiety upon performance within classroom has not been sufficiently studied. In general, perhaps it is more nearly correct to state that anxiety is not something which the student must always avoid. It could be that very bright pupils may actually benefit from anxiety (Spielberger, 1966).

#### IMPLICATIONS FOR EDUCATIONAL PRACTICE

An important implication of this study is that, given rational group counseling of even brief duration, the academic achievement of students can be enhanced substantially. Since the conditions of the present study were the ones under which high school counselors usually function, the outcome of this study might be considered especially encouraging to practicing counselors.

Research literature concerning the counseling outcomes indicates that months, if not years, are needed to produce any significant results. The question "how many sessions should actual counseling take?" is indeed an important one. Limitations on time and opportunities for counseling have

definite administrative significance in schools. Therefore, in spite of the complex relationship between duration and success in therapy, we must establish clear direction from the very beginning.

Tyler (1960), through her "minimum change therapy", has made a powerful plea for curtailing the duration of actual counseling contacts. The introduction of a small but essential degree of change that eventually produces major modifications is consistent with Tyler's view. It is hoped that the present study takes "minimum change" a step further by demonstrating that such a phenomenon is also associated with the use of the rational group counseling procedure.

This study undermines the importance of traditional teaching procedures. Essentially because it involves one-way communication, teaching in- and-of-itself may be an inadequate method for conveying certain kinds of concepts. For example, attitudes and feelings appear not to be learned through pure "telling" procedures. Evidence (Festinger, 1964) suggests that the individual learns these as he interacts with other human beings.

With regard to study skill procedures, it has been found that teaching the mere mechanics of studying does not produce the intended studious behaviors. Attitudes toward scholastic activities appear to be more relevant determiners of achievement than knowledge of good study skills (Finger



and Schlessner, 1965). It is suggested that the rational group counseling procedure such as employed in the present study offers promise of greater returns to the counselor than the traditional approaches.

#### IMPLICATIONS FOR EDUCATIONAL RESEARCH

Some very concrete proposals for further research have already been suggested while discussing the anxiety-achievement relationship. Any one of the possibilities stated earlier could give rise to research that would amplify the findings of the present investigation.

In addition, it also may prove valuable to identify more personality and demographic variables of underachievers which may have a bearing on underachievement.

In working with the underachievers it is possible that certain counselor characteristics are more valuable therapeutically than others. While the identification of counselor characteristics was not the major focus of this study, inter-counselor differences were observed. If this observation is valid, then the selection and training of the counselors for rational group therapy needs further investigation.

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## A P P E N D I X      A

### MANUAL FOR THE COUNSELORS

This outline is designed to serve as a general guide for the study. It is not intended to be a strict set of instructions.

## RATIONAL GROUP THERAPY

### Therapeutic Rationale

According to the A-B-C theory of personality, the behavior (C) is not determined by the stimulus (A), but by the individual's perception or definition of it (B).

Rational theory rests on the assumption that human emotions are caused and controlled by thinking. Further, human thinking usually occurs through the use of symbols and language. "... the phrases and sentences that we keep telling ourselves frequently are or become our thoughts and emotions (Ellis, 1963)." The rational therapist believes that emotional disturbance essentially arises when individuals tell themselves negative, unrealistic, illogical, and self-defeating sentences.

Rational therapy is, therefore, mainly a mode of attitudinal de-indoctrination. The client is taught precisely what the irrational links in his internalized sentences are, and how he can learn to tell himself more realistic sentences, instead.

Primarily because other people can come to act as auxiliary therapists, the outcome of rational encounters can be significantly enhanced through group participation.

### Goals

Specifically, the following would seem to represent the major goals of rational group therapy:

- (1) To provide an atmosphere in which the participants can freely open up to each other about their most intimate thoughts, beliefs, and feelings.
- (2) To show each participant why he behaves in certain important ways and what he can do to change himself.

In order to help accomplish these goals, the counselor must take a highly active role. He should encourage and confront the members with the philosophical underpinnings of their inappropriate emotions and behavior. The other members of the group are expected to start acting as auxiliary therapists.

Of course, rational group therapy is primarily here-and-now oriented, the major emphasis being on why an individual is now behaving the way he does.

It is the primary function of the counselors to provide the necessary conditions so that the stated goals are accomplished.

IRRATIONAL IDEAS WHICH CAUSE AND SUSTAIN EMOTIONAL  
DISTURBANCES (TOGETHER WITH THEIR MORE RATIONAL  
REPLACEMENTS)  
(by Albert Ellis)

- (1) The idea that it is a dire necessity for an adult human being to be loved or approved by virtually every significant other person in his community.

*One should concentrate on his own self-respect, on winning approval for necessary purposes (such as job achievement), and on loving rather than being loved.*

- (2) The idea that one should be thoroughly competent, adequate, and achieving in all possible respects if one is to consider oneself worthwhile.

*It is better to focus on doing than doing well; to accept oneself as an imperfect creature, who has definite human limitations and fallibilities.*

- (3) The idea that certain people are bad, wicked, or villainous and that they should be severely blamed and punished for their villainy.

*Certain acts are inappropriate, or antisocial, and people who perform such acts are invariably stupid, ignorant, or emotionally disturbed.*

- (4) The idea that it is awful and catastrophic when things are not the way one would very much like them to be.

*It is too bad when things are not the way one would like them to be, and one should certainly try to change or control conditions, but if this is not possible, one had better become resigned to their existence and stop telling oneself how awful they are.*

- (5) The idea that human unhappiness is externally caused and that people have little or no ability to control their sorrows and disturbances.

*Most human unhappiness is caused or sustained by the view one takes of people and events rather than by people and events themselves.*

- (6) The idea that if something is or may be dangerous or fearsome one should be terribly concerned about it and should keep dwelling on the possibility of its occurring.

*If something is or may be dangerous one should frankly face it and try to render it non-dangerous and, when that is not possible, think of other things and stop telling oneself what a terrible situation one is or may be in.*

- (7) The idea that it is easier to avoid than to face certain life difficulties and self-responsibilities.

*The so-called easy way is invariably the much harder way in the long run and the only way to solve difficult problems is to face them squarely.*

- (8) The idea that one should be dependent on others and needs someone stronger than oneself on whom to rely.

*It is usually far better to stand on one's own feet and gain faith in oneself and one's ability to meet difficult circumstances of living.*

- (9) The idea that one's past history is an all-important determiner of one's present behavior and that because something once strongly affected one's life, it should indefinitely have a similar effect.

*One should learn from one's past experiences but not be overly-attached to or prejudiced by them.*

- (10) The idea that one should become quite upset over other people's problems and disturbances.

*Other people's deficiencies are largely their problems and frequently have little or nothing to do with us.*

- (11) The idea that there is invariably a right, precise, and perfect solution to human problems and that it is catastrophic if this perfect solution is not found.

*One should first make an effort to think of several possible solutions and to choose, from these alternatives, the one that is most practical and feasible.*

## TEACHING OF RATIONAL IDEAS

Direct teaching is a highly structured activity with clearly defined purposes of learning determined beforehand. It is assumed that such rather directive behavior is a common technique of instruction in schools.

The subject matter for subgroups  $B_1$ ,  $B_2$ , and  $B_3$  is to be the eleven major irrational ideas outlined by Ellis (1963). The ideas are to be taken as problems for factual discussion permitting group members to react with questions and comments. If successful, the direct teaching technique would be deemed desirable for reasons of economy, if nothing else.

The essential difference between rational group counseling and rational teaching is that whereas the subjects exposed to the rational group counseling would be shown precisely what the illogical links in their internalized sentences are and how they could re-think those and similar other sentences, the subjects exposed to rational teaching would be mainly encouraged to know and understand Ellis' irrational ideas along with their rational counterparts.

The counselors are asked to advance the content per se and refrain from involving the subjects in personal applications of the ideas as far as possible. It is recommended that the counselors adhere to the outline, "Irrational Ideas which cause and sustain Emotional Disturbance (together with their more rational replacements)."

## TEACHING OF STUDY SKILLS

### To the Counselors

Studying is a skill which must be acquired. A student's approach to his study assignments depends to a great extent on the motivation provided by you.

The main purpose of this part of the manual is to identify the major study skills and to motivate the student to use them. Specifically, the aims are to:

- (1) Explain the basic study skill of skimming, searching, and summarizing.
- (2) Help students understand the principle of associations as aids to memory.
- (3) Stress the basic rules for test taking, and
- (4) Outline the major steps in report writing.

It is the function of the counselors to provide the necessary information according to the following outline.

#### (1) Introduction

Study skills = Know-how

Study skills are like any other skill. They must be first learned and then practiced for maximum results. The basic difference between a good and a poor student lies in the use of one's ability to the maximum advantage through knowledge of how to study. Academic work today demands considerable studying at a high level of comprehension. It is important to study better. Why?



(2)(a) Preparing a Schedule

The purpose is an efficient organization of time through a proper balance and coordination of activities. Chances of success at school can be increased by planning a schedule of study. It is important, however, to set specific but manageable goals.

(b) Setting Up Good Conditions for Study

A regular place, relatively quiet and free from interruptions, is most conducive to study. Good lighting and reasonable comfort are necessary. All necessary equipment such as texts, a dictionary, note books, pen or pencil, etc., may be made available beforehand.

(3)(a) Learning to Listen

Approximately 75 per cent of the facts and ideas are acquired through listening. Are you paying sufficient attention? To get the most from instruction the students must be active listeners. Being alert, entering in discussions, and asking questions aid the learning.

(b) Taking Class Notes

Taking notes to force recall is one of the most important parts of any study system. A good student concentrates, recognizes main points, takes notes, compares these notes with points made in the text book, and organizes the notes into an outline. This procedure is a good way for a daily review.

#### (4) Skimming and Searching

Skimming means scanning or leafing through the assignment in order to locate the over-all pattern. Structuring involve the first quick reading with particular attention devoted to the headings and sub-headings. While skimming, it is important to ask oneself questions concerning the subject matter. Questions like W5 (What? Where? When? Who? and Why?).

Searching involves looking for the answers to questions raised earlier. The primary purpose here is to identify the central theme and the main points.

#### (5) Summarizing

The objective here is to find out how all the facts fit together. Summarizing demands reading of the entire assignment, word by word. It pays to take notes while summarizing.

#### (6) Remembering and Practicing

Reviewing and remembering are not identical processes. Remembering requires recall of particular facts. Building associations help the act of remembering. An example of associations is: "30 days hath September, April, June, and November ...".

To practice means to apply the techniques learned. Reciting the facts after summarizing is a good way to use those facts. Practice is important particularly because forgetting sets in soon after the material is covered once.

### (7) Preparing for Tests

There is more to preparing for tests than the mere review of facts and ideas. Planned reviews can result in durable learning. However, the best preparation for tests requires practicing that which would be required in the test.

Following the test instructions closely, reading the complete question before answering it, and correct spellings used with a legible handwriting, all help the student get better grades.

### (8) Writing a Report

A good report requires systematic planning. The necessary steps in the writing of a report are:

Doing research: use of the school library for a detailed study of the subject.

Taking notes: preferably on small cards, during research.

Making an outline: in order to organize the material following the outline.

### (9) Summary

Fortunately, people can become better students by using the study-reading formula: SQ3R.

S: Survey -- skim the chapter to see what it's all about (read only opening, and closing summary paragraphs, headings, some topic sentences)

Q: Question -- you never learn without a purpose. Jot down several questions you want this chapter to answer.

- R: Read -- read the chapter carefully.
- R: Review -- look back over the chapter to make sure that you got the answers to your questions and note the other important points.
- R: Recite -- recite to yourself, without looking at the pages, an outline of the "meat" of the chapter.

## A P P E N D I X      B

### I-I INVENTORY

The following is a copy of the Irrational  
Ideas Inventory used in this study.

I-I INVENTORY

Name \_\_\_\_\_

Date \_\_\_\_\_ Grade \_\_\_\_\_

To The Student

This is a study of events and experiences in everyday life. You are asked to cooperate seriously and carefully in marking the items in this booklet. This is not an intelligence test. The best answer to each statement is your own first impression - there are no right or wrong answers.

Your answers will be treated with the strictest confidence and in no case will they be used to cause you any embarrassment.

INSTRUCTIONS FOR MARKING ANSWERS

For each statement, decide whether your answer is "Yes" or "No". If your answer is a definite "Yes" put an (x) on the end of the line where the "Yes" is typed. If your answer is a definite "No" put an (x) on the end of the line nearest the "No". If you are uncertain as to how you feel about the statement mark an (x) on the middle of the line. If the true answer is somewhere between the yes and no, put the (x) where it is most true for you.

Think carefully, but do not spend too much time on any one question. Let your own personal experience or opinion guide you to choose the answer you feel about each statement.

There is no time limit.

Please mark every item.

- |  |       |   |    |
|--|-------|---|----|
| 1. I would rather play by myself than with someone.                                      | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 2. I prefer to get things done very quickly rather than being slow and sure in movement. | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 3. All human lives are equally sacred.   | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 4. I usually object when a person steps in front of me in a line of people.              | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 5. I have sometimes had a nickname which I didn't like very well.                        | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 6. I am afraid in the dark.  | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 7. I prefer to accept suggestions rather than work them out for myself.                  | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 8. It is better to tell your troubles to your friends than to keep them to yourself.     | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 9. Men are created equal in mental capacity.   | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 10. It is necessary to be especially friendly to new students.                           | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 11. School promotions should be for intellectual merit alone.                            | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 12. I like to be praised.  | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 13. It is foolish to let others see your emotions.                                       | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 14. To spare the rod is to spoil the child.  | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 15. I worry about little things.   | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 16. There are people who try to do me harm or hurt me.                                   | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |
| 17. I sometimes worry about my health.   | Yes   | ? | No |
|  |       |   |    |
|  | <hr/> |   |    |

18. Students should not be required to take courses for which they see no use.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
19. I like to bear responsibilities alone.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
20. It is a big aid to health to say each morning, "Day by day in every way I am getting better and better."
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
21. Helping others is the very basis of life.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
22. Firm convictions make for strength of character.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
23. I feel that it is important to get on well with my teachers and principal.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
24. Will power is the most important trait.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
25. The "insanity plea" as a defence in murder trials is undesirable.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
26. I must learn to "keep my head" when things go wrong.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
27. I think that I am getting a square deal in life.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
28. It is useless to worry about things that cannot be changed or corrected.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
29. It is better to live a coward that die a hero.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
30. I prefer to have someone with me when I receive bad news.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
31. Some children are dull and unimaginative because of defective training in home and school.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
32. Sympathy is the most divine passion of the human heart.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
33. The good person is usually right.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
34. Sometimes I feel that no one loves me.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
-



35. I find it difficult to take criticism without feeling hurt.
36. We are justified in refusing to forgive our enemies.
37. It is all right to create a scene in order to get ones own way.
38. Riches are a sure basis for happiness in the home.
39. I worry over possible misfortunes.
40. I have sometimes crossed the street to avoid meeting some person.
41. I prefer to be alone.
42. The boy who regularly stands at the foot of the his class is often a great success after leaving school.
43. I get disturbed when neighbours are very harsh with their little children.
44. I find it easy to set standards of "right" and "wrong".
45. Jeers humiliate me even when I know that I am right.
46. Admiration gratifies me more than achievement.
47. Punishment is a sure cure for crime.
48. I frequently feel self-conscious about my appearance.
49. My feelings are easily hurt.
50. Sometimes I am troubled by thoughts of death.
51. If I were able to do so I would attend some other school than the one I am now attending.

Yes                      ?                      No  
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Yes                      ?                      No  
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52. My folks are not reasonable to me when they demand obedience.
53. Habits of pre-school years carried over into adult life may help determine our usefulness.
54. I get annoyed when people are impolite to me.
55. If one needs something badly enough and cannot buy it, there are times when it is all right to take it.
56. I want people to like me better.
57. Too much importance is attached to the possession of money and good clothes in this school.
58. Criminals are really sick and should be treated like sick persons.
59. I get terribly upset and miserable when things are not the way I would like them to be.
60. This school provides adequate opportunity for me to meet and make friends.
61. I worry about eternity.
62. I need to learn how to keep from being too aggressive.
63. I would like school better if teachers were not so strict.
64. Children outgrow their bad habits.
65. I get upset when I hear of people (not relatives or close friends) who are very ill.
66. It is all right to cheat in a game when you will not get caught.
67. My folks do not take time to become acquainted with my problems.

Yes                      ?                      No  
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Yes                      ?                      No  
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Yes                      ?                      No  
 '                      '                      '                      '                      '

---

Yes                      ?                      No  
 '                      '                      '                      '                      '

---

Yes                      ?                      No  
 '                      '                      '                      '                      '

---

Yes                      ?                      No  
 '                      '                      '                      '                      '

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68. This school places too much emphasis upon grades.

Yes                      ?                      No  
 '                      '                      '                      '

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69. The members of my family seem to criticize me a lot.

Yes                      ?                      No  
 '                      '                      '                      '

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70. I get very angry when I miss a bus which passes only a few feet away from me.

Yes                      ?                      No  
 '                      '                      '                      '

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71. I find that this school tends to make me unhappy.

Yes                      ?                      No  
 '                      '                      '                      '

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72. I can walk past a grave yard alone at night without feeling uneasy.

Yes                      ?                      No  
 '                      '                      '                      '

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73. I usually like to be somewhere else than at home.

Yes                      ?                      No  
 '                      '                      '                      '

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74. I enjoy being alone more than being with my classmates.

Yes                      ?                      No  
 '                      '                      '                      '

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75. A person who will not stand up for his rights as a teen-ager will probably not be able to stand up for his rights as an adult.

Yes                      ?                      No  
 '                      '                      '                      '

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76. Other people's problems frequently cause me great concern.

Yes                      ?                      No  
 '                      '                      '                      '

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77. Crime never pays.

Yes                      ?                      No  
 '                      '                      '                      '

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78. I wish that more affection were shown by more members of my family.

Yes                      ?                      No  
 '                      '                      '                      '

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79. I worry about tests.

Yes                      ?                      No  
 '                      '                      '                      '

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80. When I see movies about daring robberies, I usually hope the robber won't get caught in the end.

Yes                      ?                      No  
 '                      '                      '                      '

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81. When things are not the way I would like them to be, and it is not in my power to change them, I calmly accept things the way they are.

Yes                      ?                      No  
 '                      '                      '                      '

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82. I feel that life has a great deal more happiness than trouble.

Yes                      ?                      No  
 '                      '                      '                      '

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83. I can face a difficult task without worry.

Yes                      ?                      No  
 '                      '                      '                      '

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84. I avoid inviting others to my home because it is not as nice as theirs.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
85. I prefer to be independent of others in making decisions.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
86. A juvenile delinquent will almost surely be a criminal when he becomes an adult.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
87. He that loses his conscience has nothing left that is worth keeping.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
88. It is better to have friends than fame.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
89. My folks appear to doubt whether I will be successful.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
90. I feel guilty when I misbehave and I expect to be punished.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
91. Sticks and stones will break my bones, but words will never hurt me.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
92. I tend to worry over possible troubles.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
93. Many of my classmates are so unkind or unfriendly that I avoid them.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
94. I tend to look to others for the kind of behavior they approve as right and wrong.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
95. If a child is brought up in a home where there is much quarreling and unhappiness he will probably be unhappy in his own marriage.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
96. People who unjustly criticize the government should be put in jail.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
97. When a friend ignores me I become extremely upset.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
98. If a person tries hard enough, he can be first in anything.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
-

99. The police may sometimes be right in giving a man the "third degree" to make him talk.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
100. It hurts me when my friends are unkind.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
101. I worry about the possibility of an atomic attack by some foreign power.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
102. I often spend more time in trying to think of ways of getting out of something than it would take me to do it.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
103. I feel my parents have dominated me too much.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
104. I know there is a God.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
105. I find it very upsetting when people who are important to me are indifferent to me.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
106. When a person is no longer interested in doing his best he is done for.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
107. The best way to teach a child right from wrong is to spank him when he is wrong.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
108. It is impossible at any given time to change one's emotions.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
109. I frequently do things that I am afraid of doing in order to prove to myself that there is nothing intrinsically frightful about these things.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
110. I am happiest when I am sitting around doing little or nothing.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
111. Cooperation is better than competition.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
112. It is sinful to doubt the Bible.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
113. It makes me uncomfortable to be different.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
-

114. People who do not achieve competency in at least one area are worthless.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
115. People who perform acts which are immoral do so because they are too stupid or too ignorant to refrain from doing so.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
116. Unhappiness largely comes from within and is largely created by the unhappy person himself.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
117. I am naturally a lazy person.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
118. It is better to take risks and to commit possible errors, than to seek unnecessary aid of others.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
119. Persons who are punished for their "sins" usually change for the better.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
120. It would be terrible or catastrophic to be a cripple.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
121. I follow a definite study schedule during the school term.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
- 
122. Most people can be truly outstanding in at least one area of their work.
- Yes                      ?                      No  
 '                      '                      '                      '                      '
-

## A P P E N D I X      C

### ALPERT-HABER AAT SCALE

(The following is a copy of the  
Achievement Anxiety Test used  
in this study.)

NAME \_\_\_\_\_

DATE \_\_\_\_\_

**INSTRUCTIONS:**

Read each statement and then rate each one as it applies to you personally. Indicate the degree to which the statement applies to you by circling the appropriate number.

EXAMPLE: Circling the number 5 means that the statement is very applicable to you.

Circling the number 1 means that the statement is not applicable to you.

1. Nervousness while taking an exam or test hinders me from doing well .  
Always-----Never  
5 4 3 2 1
2. I work most effectively under pressure, as when the task is very important.  
Always-----Never  
5 4 3 2 1
3. In a course where I have been doing poorly, my fear of a bad grade cuts down on my efficiency.  
Never-----Always  
1 2 3 4 5
4. When I am poorly prepared for an exam or test, I get upset, and do less well than even my restricted knowledge should allow.  
This never happens to me-----This practically always happens to me.  
1 2 3 4 5
5. The more important the examination, the less well I seem to do.  
Always-----Never  
5 4 3 2 1
6. While I may (or may not) be nervous before taking an exam, once I start, I seem to forget to be nervous.  
I always forget-----I am always nervous during an exam.  
5 4 3 2 1
7. During exams or tests, I block on questions to which I know the answers, even though I might remember them as soon as the exam is over.  
This always happens to me-----I never block on questions to which I know the answers.  
5 4 3 2 1
8. Nervousness while taking a test helps me do better.  
It never helps-----It often helps.  
1 2 3 4 5
9. When I start a test, nothing is able to distract me.  
This is always true of me-----This is not true of me.  
5 4 3 2 1



10. In courses in which the total grade is based mainly on one exam, I seem to do better than other people.  
Never-----Almost always.

1 2 3 4 5

11. I find that my mind goes blank at the beginning of an exam, and it takes me a few minutes before I can function.  
I almost always blank out at first-----I never blank out at first.

5 4 3 2 1

12. I look forward to exams.  
Never-----Always.

1 2 3 4 5

13. I am so tired from worrying about an exam, that I find I almost don't care how well I do by the time I start the test.  
I never feel this way-----I almost always feel this way.

1 2 3 4 5

14. Time pressure on an exam causes me to do worse than the rest of the group under similar conditions.  
Time pressure always seems to make me do worse on an exam than others-----Time pressure never seems to make me do worse on an exam than others.

5 4 3 2 1

15. Although "cramming" under pre-examination tension is not effective for most people, I find that if the need arises, I can learn material immediately before an exam, even under considerable pressure, and successfully retain it to use on the exam.  
I am always able to use the "crammed" material successfully-----I am never able to use the "crammed" material successfully.

5 4 3 2 1

16. I enjoy taking a difficult exam more than an easy one.  
Always-----Never.

5 4 3 2 1

17. I find myself reading exam questions without understanding them, and I must go back over them so that they will make sense.  
Never-----Almost always.

1 2 3 4 5

18. The more important the exam or test, the better I seem to do.  
This is true of me -----This is not true of me.

5 4 3 2 1

19. When I don't do well on a difficult item at the beginning of an exam, it tends to upset me so that I block on even easy questions later on.  
This never happens to me-----This almost always happens to me.

1 2 3 4 5