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SELF INSTRUCTIONAL TRAINING AND RATIONAL EMOTIVE COUNSELLING WITH TEST ANXIOUS HIGH SCHOOL STUDENTS

by

Christopher Robert Haynes

B.Sc.(Hons.), London University, 1973

A THESIS SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS (EDUCATION)

in the Faculty

of

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ABSTRACT

Research studies have demonstrated that anxiety may be detrimental to the performance of students in testing situations. Procedures to reduce this problem would clearly be of value to students throughout their school careers, and may have implications for their future employment prospects.

Counselling for test anxiety recently has been focused on cognitive alleviation of test anxiety. This study compared the relative effectiveness of two different cognitive approaches to reducing test anxiety. The two counselling techniques were self-instructional training and rational emotive counselling. Self-instructional training focuses on replacing an individual's negative, self defeating thoughts, with a more adaptive, positive repertoire of self statements. Rational emotive counselling focuses on modifying an individual's belief system. Irrational beliefs are systematically refuted and exposed, to be replaced with more rational beliefs.

The overall experiment comprised two studies which took place in two different high schools. In the first experiment 33 volunteer students were assigned randomly to the three counselling groups: the rational emotive counselling group, the self-instructional counselling group, and a placebo group. The placebo group employed only relationship enhancement and attentional techniques, but paralleled the two other groups in

format and structure. These students had been screened to ensure that they did not have high levels of general anxiety, and to ensure that they were highly test anxious. Treatment programs were eight 50-minute weekly group sessions. Behavioural (Canadian Test of Basic Skills) and self-report (Test Anxiety Inventory and STAI-State and Trait) measures were used to measure anxiety and its effects both pre- and posttest. Experiment two replicated the methods and procedures of experiment one.

Results of experiment one indicated that self-instructional training improved students' self-reports of test anxiety but not performance measures. The rational emotive counselling group improved students' self-reports of test anxiety but not performance measures. Members of the placebo group did not demonstrate any statistically significant results on self-report or performance measures.

In experiment two, results indicated that both the rational emotive and the self-instructional groups improved students' self-reports of test anxiety, but not on any of the performance measures - CTBS Reading. In experiment one, when the two experimental groups were contrasted there were no differences found between the two counselling methods. However, in

experiment two, the rational emotive group improved more than the self-instructional group on two variables - TAI-Worry Scale and the CTBS-Reading Test.

Possible explanations for these results and implications for school counsellors are discussed.

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CHAPTER I

STATEMENT OF THE PROBLEM

The purpose of this study is to compare the effectiveness of rational emotive counselling with self-instructional training procedures for the treatment of test anxiety in high school students. This chapter outlines the nature and significance of test anxiety to high school students. First, the relative importance of tests in schools is documented. Second, the effects of test anxiety on the academic performance of students is examined. Finally, an overview of treatment approaches to test anxiety is given. In this final section, the central role of cognitive factors in test anxiety is given particular attention.

Schools and Testing

"Tests are as indigenous to the school environment as are text books and pieces of chalk" (Jackson, 1966, p. 4).

Testing, as Jackson indicates, is an integral part of the educational evaluative process. While other methods of evaluating student performance exist, testing is by far the most common method of evaluating student performance. Some

authors have argued forcefully that the focus on testing in schools reflects a wider societal concern with separating those persons considered "successful" from those who will be labelled as failures (Glasser, 1969; Holt, 1964). It is not the intention here to argue the philosophical merits and demerits of testing per se; however, the societal importance placed on the process of testing is a factor critical to the topic of this study. Children themselves recognize the importance attached to tests at early stages in their educational careers. White (1968), working with elementary school children, demonstrated that when asked which were the most important subjects studied at school, students responded with mathematics as the most important followed by spelling. When asked why these were the most important, they indicated that they had the most tests in math and the second highest number of tests in spelling!

Evaluation is an important part of teaching. Tests and examinations can be useful to students and teachers alike. The information they yield can provide teachers with a means of assessing the extent to which they are achieving their objectives. Well constructed tests can reveal what students have learned, not learned, or have misunderstood. Tests may reveal weaknesses in curriculum content or design, such

information often is of particular value to school administrators.

For students, test results may warn them when they are falling below minimum standards of performance. Equally important, they may provide students with the opportunity of applying newly acquired knowledge in different situations. Feedback from such tests may provide students with a chance to fill gaps in their knowledge or understanding. However, despite these possible benefits of testing, perhaps the most salient features in most students' minds are the knowledge that they are being rated, and that such ratings ultimately affect their futures.

One of the most basic assumptions of school testing is that each student has an equal chance to succeed on the test, according to his or her knowledge and/or skill in the curriculum area being tested (Silberman, 1970). Students who are in the same grade in a school usually receive the same general curriculum and often take tests at the same time. But what if the tests were not fair indices of achievement? What if other factors enter into the process so that those students who have adequate skills and knowledge are unable to demonstrate their abilities during the test? What effect would this have on their school life, their familial

interactions or their future schooling and careers?

Anxiety and Achievements

Societal and educational pressures to succeed in test taking may lead to anxiety (Sarason, 1957). Initially, work in the area of test anxiety focused on the behavioural correlates of anxiety. Highly anxious students were described as self-disparaging, unadventurous, possessing negative personality characteristics, and possessing a tendency to indulge in daydreams (Rosenberg, 1953; Sarason, 1958; Wirt, 1956). Early researchers also examined the relationship between anxiety and achievement. Work in this field was pioneered by Spielberger, and the typical research method used was to administer students a variety of anxiety scales followed by a battery of achievement tests. An example of this approach is Lunneborg's study (Lunneborg, 1964). Lunneborg gave three anxiety scales (the Test Anxiety Scale - Sarason, 1960; the Children's Manifest Anxiety Scale - Taylor, 1953; and the General Anxiety Scale for Children - Atkinson, 1964) to 213 boys and girls in grades four, five and six. The scores on these scales were then correlated with reading and arithmetic achievement scores. For the total group, the correlations between anxiety and achievement measures for each

grade were negative and statistically reliable, indicating that high anxiety was associated with poorer achievement in both reading and arithmetic. Furthermore, the tests indicated that negative correlations tended to be larger for girls than for boys, and that negative correlations tended to become stronger with increasing grade level.

Sarason (1960) has presented data which support Lunneborg's finding that correlations between anxiety level and achievement are negative and tend to become higher with increasing grade level in elementary school. Sarason reported correlations of -.23, -.26, -.25 and -.41 between the Test Anxiety Scale for Children (Sarason, 1960) and the Stanford Achievement Test (Truman and Kelly, 1959) for grades three, four, five and six respectively (n = 273).

Frost (1968) reports research in which the relation between anxiety and educational achievement was investigated for 310 eleven year old pupils. Frost's anxiety measures consisted of items from the Manifest Anxiety Scale, the Children's Manifest Anxiety Scale, the General Anxiety Scale for Children, and the Test Anxiety Scale for Children, which were assigned to two different anxiety scales, a "School Anxiety" scale and a "General Anxiety" scale. For both boys and girls these two anxiety measures were negatively correlated

with four performance measures: vocabulary, reading comprehension, mechanical arithmetic, and problem arithmetic.

In an analysis of research findings in the area of test anxiety and achievement, Spielberger (1971) concludes that the most consistent and reliable conclusion of this research is that high anxiety is associated with relatively low performance at both the public school and university levels.

> This conclusion is based on the negative correlations that were obtained in a number of different studies between different measures of anxiety and a variety of measures of academic aptitude and achievement. (Spielberger, 1971, p. 41).

Furthermore, Spielberger advanced two tentative conclusions. First, negative correlations between anxiety and achievement tend to increase in size for higher grade levels. Second, research suggests that mathematics becomes increasingly associated with anxiety towards the end of the elementary grades.

Reducing Anxiety Through Environmental Controls

At this stage it has been demonstrated that students with the highest level of test anxiety are consistently under-represented among the highest achievers in many test taking situations. An initial reaction of educational researchers

to this point was to attempt to modify levels of anxiety in order to gauge the effect on performance of reduced anxiety levels. The hypothesis here was that if tests and testing procedures were modified to reduce anxiety, a corresponding increase in achievement might be expected from highly anxious students. An example of this approach is found in the work of McKeachie, Pollie and Speisman (1955), who reported a study in which they tried to improve the performance of college students by encouraging them to write comments about test items during examinations. In one experiment, McKeachie gave half of the students answer sheets with spaces for "comments" while the remaining students were given standard answer sheets. The experiment was repeated three times and students with the "comment" sheet made significantly higher scores on the tests than those who used conventional answer sheets. Smith and Rockett (1958) repeated the McKeachie study but added a new dimension by giving each student the Test Anxiety Scale prior to testing. Results of this study indicated that it was the highly anxious students who were improving their scores with the opportunity to comment on test items. However, an interesting feature of these studies was that the 'comment' answer sheet actually hindered low-anxious students and decreased their scores.

Spielberger (1971) also noted that anxiety may be better controlled during tests by manipulating structure of test items. Typically, where test questions are arranged so that items are presented in increasing difficulty, highly anxious students will perform better than they would if test items are arranged in decreasing order of difficulty. It appears that highly anxious students who encounter a difficult question early in the test experience increased anxiety levels that cause them to miss easy items that would have been answered correctly if anxiety had not interfered.

Studies by Caron (1963) show that instructions given to students prior to starting exams also have an effect on highly anxious students. For example, when students were told that results of examinations were indicative of intelligence and that these results would be given to the school principal, the performance of highly anxious students decreased significantly. However, when a second group of highly anxious students was told that it was the exam itself that was being tested for research purposes, the test performance of this group was not impaired.

While such studies have provided valuable insights into the nature of test anxiety it has not been possible to design environmental controls that would adequately meet the needs

of every child in all testing situations. Performance of highly anxious students may be increased by removing various anxiety cues; but, as Spielberger (1971) points out, the cost is born by low anxiety students whose performance significantly decreases when arousal levels are reduced. The only 'ideal' testing situation is one specifically designed for each individual student. Such an approach is at present untenable, given the large numbers of students who may be involved. Consequently, other approaches must be sought.

Alleviating Test-Anxiety Through Treatment

Since the possibilities for alleviating test-anxiety through changes in test design and environmental controls are limited, attention has been more directly focused on treating individual students to better cope with high levels of anxiety both prior to and during test taking situations. In a survey of treatment methods used, Tryon (1980) notes that along with snake phobia, test anxiety appears to be one of the most popular concepts used for the purposes of validating treatment procedures for anxiety reduction. Treatments used by researchers have included hypnosis, study skills training, systematic desensitization, relaxation cue training, attentional training, self-instructional training, rational emotive

counselling and also hybrid combinations of each of the treatments listed.

This study focuses on the comparative effectiveness of rational emotive counselling and self-instructional training in the treatment of test anxiety. The majority of research on treatment procedures has typically taken place in university settings with college level students. Intervention is warranted at earlier stages in students' careers, for test anxiety appears to be a progressive phenomenon, the detrimental effects of which appear to be compounded as the student moves through the educational system.

In this chapter, the effects of test anxiety on achievement have been explored. Environmental controls by themselves have shown to have limited value under current educational practice. The need for appropriate counselling approaches has been documented. In the following chapter, two such approaches are examined in more detail, the significant fact that they are both cognitive approaches is discussed.

CHAPTER II

REVIEW OF RELEVANT LITERATURE

This chapter reviews literature relevant to test anxiety. The chapter is divided into five major areas. In the first section, the construct of anxiety is studied and test anxiety is operationally defined. Next, an overview of interventions previously used for the alleviation of test anxiety is reviewed. Research methods and findings related to these procedures are discussed. In the third section, the more recent use of cognitive interventions in the treatment of test anxiety is explored. Throughout this section, the central role of cognitions in the formation and maintenance of anxiety is documented. In the fourth section, the two cognitive counselling methods of self-instructional training and rational emotive counselling are delineated and contrasted. Finally, a statement of hypotheses for this study is given and an overview of the overall experiment is included.

Anxiety and Test Anxiety

The central concept of anxiety has been defined and interpreted in many ways. In sifting through differing views and research results it becomes apparent that there are some areas of agreement. First, there is an agreement that anxiety is related to fear (McReynolds, 1976). Fear and anxiety produce the same physiological responses (Spielberger, 1970). One way to distinguish fear from anxiety is by the presence or absence of a perceived physical threat. Fear is a response to a stimulus that is perceived as posing a direct physical threat, such as being in a plane that has just lost an engine. It is an adaptive response that mobilizes a person's resources to deal with a threat to survival. Anxiety refers to a vaguer emotion whose effect may either be adaptive or maladaptive. May (1950, p. 53) writes "anxiety is the apprehension cued off by a threat to some value which the individual holds essential to his/her existence as a personality". May's work recognizes that (by virtue of sophisticated cognitive capabilities) human beings not only have a physical self that can be threatened, but also have a cognitive image of themselves and their world that also may be threatened. The notion that anxiety results from a threat to one's self system or

"cognitive map", unites many definitions of anxiety. Averill (1976) speaks of anxiety as a state of "cognitive disintegration" which clearly refers to the anxious person's feeling that his/her cognitive view of the world is threatened with dissolution.

However, it would be inaccurate to say that there is widespread consensus about this cognitive view of anxiety. Wolpe (1966) maintains that anxiety is nothing but a conditioned emotional habit. Others, such as Sarason (1980), believe that the construct of anxiety might best be defined and understood through listing the characteristics of anxiety. Among the characteristics Sarason uses in his definition are: (1) the situation is seen as difficult, challenging, and threatening; (2) the individual sees him/herself as ineffective or inadequate in handling the task at hand; (3) the individual focuses on undesirable consequences of personal inadequacy; (4) self-deprecatory pre-occupations are strong and interfere or compete with task relevant cognitive activity; and (5) the individual expects and anticipates failure and loss of regard by others.

Sarason's description is clearly relevant to the understanding of the construct of test-anxiety. Much of the debate surrounding the construct of anxiety spills over to definitions

of test anxiety. Some researchers (Wine, 1980; Sarbin, 1968) have suggested that the term test-anxiety be deleted from our psychological vocabulary, and would see it replaced with a more behaviourally descriptive term such as "worry". Rosenberg (1965) also found the term test-anxiety to be misleading. Rosenberg suggests that those subjects with high scores on test-anxiety measures are people who typically interpret a wide variety of situations as evaluative and react with the various anxiety concomitants already cited. Rosenberg suggests that the term "evaluative apprehension" is a more descriptive and accurate label. Such suggestions have not yet had impact on the literature, and the term "test anxiety" is still used widely.

A further caveat to using the concept of test-anxiety comes from Tobias (1979) who takes a slightly different perspective. Tobias argues that test-anxiety comprises one piece of a jig-saw puzzle and that researchers have focused so much on the small pieces they have lost sight of the total picture. The total picture for Tobias is the extent of the effects of anxiety on learning across the gamut of educational contexts. Anxiety is seen as a major psychological variable in education and one that is evident not just in test taking but throughout the educational process. Tobias argues that the learning

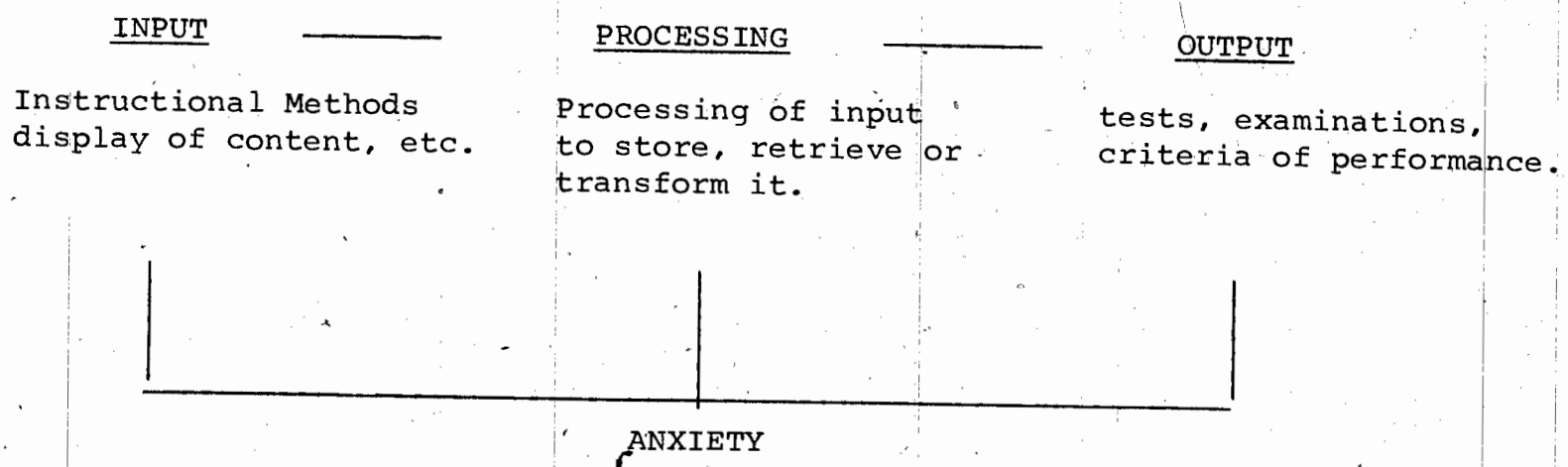
may be viewed in three phases - input, processing, and output. Input includes the presentation of instructional materials to students. The processing phase refers to all operations performed by students to register, record, organize, store, and retrieve instructional input. Output encompasses the student's performance on any measure demonstrating that instructional objectives have been mastered. In such an overview, anxiety may interfere with a student's performance not just at the post-processing phase (test anxiety) but also during the pre-processing stage and the processing stage. This may be understood through an examination of Figure 1. Such a view of the relationship between anxiety and education has implications for the focus of future research and for the broadening of counselling approaches to include the modification of anxiety through all phases of the learning process.

Test Anxiety Theories

Test anxiety has become an increasingly studied and researched area over the past 20 years. Sarason (1980) suggests that the value of empirical research in this area is not confined to the treatment of test anxiety but has a more universal application as a gateway to the understanding of

Figure I

Anxiety may affect the total learning process.



stress and how people cope with it. Wine (1980) notes that not only has the literature on test anxiety increased, but the focus of concern also has shifted considerably. Initially, investigators had taken an emotional reactivity interpretation of test-anxiety - a focus which had clearly influenced research efforts. This trend has shifted and moved toward the "worry" component of test anxiety along with the study of cognitive correlates on anxiety responses. A further trend is the shift from research concentrating on the debilitating effects of anxiety to the current emphasis on methods to alleviate these negative effects.

Perhaps one of the first questions to be confronted when dealing with test anxiety is the question of its development. The development of test anxiety in children has given rise to surprisingly few theories. The basic issue which needs to be addressed and which has implications for counselling is why does test anxiety develop in some children and not in others? Dusek (1980) postulates that test-anxiety is a result of the child's evaluative experiences at school. Earlier theorists saw test anxiety as being rooted in the home. S.B. Sarason (1960) viewed test-anxiety as a personality characteristic which resulted from the child's earliest interactions with parents. Anxiety was seen to be a result of parental

expectations which may have been too high or unrealistic. Parents become hostile, negative, and derogatory when their standards are not met, and the child in turn feels guilty, internalizes the derogatory comments, and represses hostility to the parent. Furthermore, the child may engage in fantasies about parental retaliation for the child's hostile feelings. This threat increases the anxiety of the child in the test situation. This psycho analytic interpretation of test-anxiety has not been researched fully and has been challenged by other theorists. Hermans, ter Laak, and Macs (1972) also have explored parent-child relations in trying to identify the causes of test anxiety. Their resulting theory rests much more upon the tenets of learning theory. They note that in problem solving situations, parents of highly anxious children tend to be aversive to their children. They do not respond to their children and ignore children's attempts to find security. Furthermore, they do not offer constructive help in problem-solving, and may teach their children to engage in task-irrelevant and task inappropriate behaviour. In contrast, parents of low anxious children offer both problem-solving strategies and encouragement, at the same time teaching their children to rely on their own resources and helping them to learn task-oriented behaviour. Clearly, more research in the

etiology of test anxiety is required. Wine (1980) summarizes this point as follows:

> The paucity of research findings in this area is apalling. We know virtually nothing about how children are socialized to differential levels of test anxiety, why some survive the evaluative atmosphere of the school setting with aplomb, or why others succumb to it.
>
> Wine (1980, p. 379).

The second question that naturally follows the question of how test anxiety develops, is how a researcher or counsellor can recognize test anxiety. What are the behavioural, emotional, and cognitive concomitants of high test anxious, and how can a highly test anxious individual be recognized? Wine (1980) has listed the differences between low test anxious and high test anxious individuals (Table 1). This table is based on research by Mahoney and Avener (1977), Lalonde (1978) and Bandura (1977).

In attempts to place subjects on a continuum of low test anxiety to high test anxiety, a variety of scales have been developed. Early test anxiety scale focus solely on emotional responses. These instruments most often yielded a total score which could be placed on a general scale of high anxiety to low anxiety. An example of this type of scale is the Test Anxiety Scale for Children (S. Sarason, Davidson,

TABLE I: Wine's (1980) chart of the characteristics of low test anxious and high test anxious individuals.

LOW TEST ANXIOUS	HIGH TEST ANXIOUS
Current concerns - relevant cues in situation and appropriate actions.	Current concerns - evaluation of others and anticipation of negative evaluation
Focus on task or situation	Focus on self and social evaluative cues
Task oriented	Task avoidant
Actor	Observer
Behavioural problem-solving cognitions	Static cognitions
Active	Inactive
High belief in self-efficacy	Low belief in self-efficacy
Cognitions situationally specific	Cognitions global and stereotypic
Arousal interpreted as energy (directed to problem solving)	Arousal interpreted as distress
Kinesthetic imagery (rehearsal of problem solving)	Visual imagery observes self as negatively evaluated

Lighthall, Waite, and Ruebush, 1960). Later scales for test anxiety usually contain two scores - one which is a traditional measure of emotional reactions, and a second score which provided a measure of cognitive reactions. Examples of this are the Test Anxiety Scale (I. Sarason, 1972(a)) and the Test Anxiety Inventory (Spielberger, Gorsuch and Lushene, 1970). This movement from concern with emotional reactivity of test anxiety to a more cognitive focus has clearly been reflected in the production of scales that are more sensitive to worry components of test anxiety. A second feature of these scales is that they are often specific to particular age groups and care must be taken in selecting a scale suitable for the ages of clients or participants in research programs.

Meichenbaum (1980) is critical of the widespread use of test anxiety scales and warns researchers that such scales may be limited in how much they really say about high anxious or low anxious participants. Meichenbaum believes that instruments are needed which are more sensitive and more accurate in measuring the cognitive strategies and structures being used by the individuals being tested. Stoop's (1978) Cognitive Interference Questionnaire is probably the closest attempt to date to capture this type of assessment in a structured, standardized format. Meichenbaum postulates that for a total

assessment of a subject's test anxiety other assessment tools may be needed. Meichenbaum (1977) has described a variety of methods to assess an individual's cognitive processes. Such an approach might restrict research to individuals and eschews the convenience of standardized test anxiety scales.

Sarason (1960) has alluded to three other problems associated with test anxiety scales. First, high anxiety scores may be obtained by certain participants because of "plus-getting tendencies" - i.e., tendencies for subjects to attribute 'bad' characteristics to themselves. Second, high scores may be obtained by particularly frank and open subjects. Third, high scores may be obtained by subjects who are particularly perceptive of their own reactions. Furthermore, it might be pointed out that many true-false scales of anxiety correlate highly and negatively with measures of defensiveness, test-taking attitude, and the tendency of respond to personality test items in a socially desirable direction (Edwards, 1957; Fordyce, 1956). High correlations may indicate that test anxiety scores are explainable in terms of test taking attitudes.

Such a brief discussion of test anxiety scales, while by no means exhaustive, does indicate a few of the inconsistencies in their use and suggests that discrepant findings in the literature may result from some of these problems in

instrumentation.

Test Anxiety Treatments and Research

While there may be a paucity of research in the area of the etiology of test anxiety, there has been considerable research in the area of investigating treatment approaches and treatment effects. In this section the variety of counselling strategies used to alleviate test-anxiety are explored and outcome studies for such interventions noted.

Types of Treatments

Various reviews of treatment studies indicate that there have been approximately 50 studies reported to date in the literature (Allen, 1972; Denney, 1980). Most of these outcome studies have related to college level students. Very few studies in the past have used high school students as participants. The most common treatment method used in the literature has been systematic desensitization. Other types of intervention have been relaxation, study skills training, cognitive restructuring treatments, and various hybrid models. Of the 50 outcome studies reviewed by Allen, therapy in all cases was conducted only on volunteer participants. More restrictive criteria for inclusion were employed in 22 studies. The most usual method for screening participants is to

administer a test anxiety scale, following which high anxious volunteers were admitted to the experiment. The most frequently used screening instruments were the Test Anxiety Scale (Sarason, 1957, 1972), Test Anxiety Behaviour Scale (Suinn, 1969), and the Anxiety Achievement Test (Alpert & Haber, 1960).

Attrition rates could be determined in 33 studies. Percentage of dropout range from zero (in 13 studies) to 28 percent with attrition averaging 7.5 percent. Failure to complete the treatment plan tended to be higher in studies that used self-administered methods for delivering the treatments (Beneke & Harris, 1972).

Treatments have varied as to whether they have been delivered to groups or on an individual basis. The majority (75 percent) were given on a group basis; the remainder on an individual basis.

Treatment sessions have varied with regard to length (number of minutes) and the number of sessions given. The highest number of sessions has been 23, in one study skills training program (Mitchell, Hall, & Piatkowska, 1975). The average number of treatments is eight and the average length of sessions is between 50 to 60 minutes. The type of treatment being given often predicates the length of a session and the number of sessions given. For example, in an outcome study

employing massed systematic desensitization, it is not surprising to see that there were only two sessions and each session was 240 minutes long (Hall & Hinkle, 1972).

The impact of the counsellor is a subject often ignored in the reporting of outcome studies. One review of outcome studies reported that over 30 percent of studies provided no information on the counsellor (Allen, Elias, Zlotlow, 1980). Where therapist characteristics were mentioned, graduate students were used as therapists twice as often as doctoral level personnel. In six studies, possible interactions between therapist attributes and differential outcomes were statistically analysed and no reliable results were found (Aponte & Aponte, 1971; Calef & Davis, 1974; Goldfried & Smith, 1978; Holroyd, 1976; Horne & Matson, 1977; Osterhouse, 1972).

When studies are reviewed with regard to preferred modalities of delivery (i.e., live or recorded), it is found that live therapist contact accounts for two thirds of the studies, and automated or self-directed treatments account for the remaining third.

Allen, Elias, and Zlotlow divide the actual treatment approaches into the following areas: (1) densensitisation and its derivatives (Denney, 1980; Zenmore, 1975), (2) anxiety induction procedures (Dawley & Weinrich, 1973; Smith & Nye,

1973), (3) modeling and vicarious learning techniques (Hall & Hinkle, 1972; Horne & Matson, 1977; Wisocki, 1973), (4) direct expectancy and cognitive restructuring (Bedells, 1976; Holroyd, 1976; Meichenbaum & Smart, 1971).

Treatment Effectiveness

Having reviewed the variety of counselling approaches employed in outcome studies of test anxiety, the question that remains to be answered is the extent to which these studies have demonstrated the effectiveness of the various treatments they examined. Three general types of instruments are available to researchers to assess the effectiveness of treatments for test anxiety.

1. Self-Report Measures. These include all measures which ask subjects to report on the extent to which their anxieties have been decreased by the treatment.

2. Performance Measures. These measures include actual subject performance changes on specific academic measures. In some studies, performance measures might include changes in subjects' grade point average, scores on standardized achievement tests, intelligence tests; or tests of skill inventories.

3. Physiological Measures. These measures typically focus on the autonomic arousal of participants and the changes

in this arousal as a result of treatment. A variety of peripheral autonomic, neurohormonal, musculoskeletal, and electrocortical measures have been shown to change in response to examination stress (Leitch, 1973).

Overall, self-report and performance measures have been used far more frequently than have physiological measures. When Allen, Elias, and Zlotlow analysed treatments for test anxiety they found that counselling in general produced reliably greater improvement than did no treatment on self-reported assessments of subjective distress and test-anxiety. However, when performance measures were considered, the result was less conclusive, with 50 percent of the studies failing to demonstrate the superiority of counselling or therapy to no treatment. Analysis of studies containing variations of systematic desensitization and relaxation techniques produced a more magnified version of this same pattern. Both methods were useful in reducing subjectively experienced anxiety, but both lacked the corresponding proof of impact on measures of performance, whether academic or intellectual.

Comparative Studies

Other studies have compared various treatments with each other in order to pinpoint the most effective approach. Snyder and Deffenbacher (1977) compared self control relaxation

procedures with systematic desensitization and an untreated control condition. Snyder and Deffenbacher found both treatments to be equally effective in reducing self-reports of debilitating test anxiety, and state anxiety before taking a test. Although subjects in both treatment groups rated themselves to be more able to perform on an ability test than did untreated control subjects, there were no differences in the actual scores achieved on the ability test.

The relative effectiveness of study skills training to other treatments has been the subject of research. Desiderato and Koskiner (1969) showed that high test anxiety may be related to poor study habits in certain cases. Allen (1971) found that a combination of desensitization and study counselling was more effective in reducing physiological activation due to examination stress, and in improving academic performance, than either type of treatment used by itself (n = 45). It appears that poor study skills may play a role in some instances of inadequate performance. In such cases study skills training would be appropriate. However, only three studies out of 14 study skills studies were found by Tryon (1980) to be effective in increasing academic performance.

The most recent comparative studies have been concerned with the relative effectiveness of various cognitive-

behavioural treatments. Suinn and Richardson (1971) compared a cognitive modification technique with systematic desensitization in the treatment of "math anxious" university students. There were 11 subjects in the systematic desensitization group, 13 subjects in the cognitive modification group, and 19 subjects in the control group. Subjects were screened on the basis of study skills and were randomly assigned to the three groups. The systematic desensitization treatment consisted of half an hour of audiotaped relaxation training and two, two hour audiotaped systematic desensitization sessions. The cognitive modification group involved an actual therapist teaching participants anxiety management techniques. The Math Anxiety Rating Scale (MARS), the Differential Aptitude Test and the Suinn Test Anxiety Behaviour Scale (STABS) were employed as pre- and posttest measures. Results of the study demonstrated that the cognitive modification group and the systematic desensitization group were similar to one another in both pre- and posttest measures. This included self-report and performance measures. However, several threats to validity, both internal and external, are evident in this study, and Tryon (1980) urges that results from this research be used cautiously.

Meichenbaum (1972) assessed the relative effectiveness of test anxiety treatment procedures by comparing a cognitive modification treatment group (N = 8) with a desensitization group (N = 8) and a waiting list control group (N = 5).

The subjects were university students. The cognitive modification group combined an insight oriented therapy which was designed to make test anxious participants aware of their anxiety engendering thoughts with a modified relaxation procedure which employed (a) coping imagery on how to handle anxiety, and (b) self-instructional training to attend to the task and avoid task-irrelevant ruminations. The systematic desensitization group used a progressive relaxation hierarchy and imagery training. The waiting list control group simply completed pre- and posttreatment variable measures (Digit Symbol Test - Weshsler, 1955; Raven's Progressive Matrices - Raven, 1956; and Grade Point Average) and self-report measures (Anxiety Differential - Husek & Alexander, 1963 and Anxiety Adjective Checklist - Gough, 1972). Results indicated that the cognitive modification group was most effective in significantly reducing test anxiety as assessed by (a) test performance obtained in an analogue test situation, (b) self-reports given immediately after post-treatment and later at a one month follow up, and (c) grade point average. Following

treatment, the test anxious students in the cognitive modification group did not differ from a group of low test anxious students.

A study by Holroyd (1976) makes a further attempt to assess the relative effectiveness of cognitive modification and systematic desensitization. Once again, university students were the subjects. Forty-eight students high in test-anxiety were assigned randomly to a cognitive modification group (N = 10), a systematic desensitization group (N = 9) and a control group (N = 10). The control group used pseudo-therapeutic techniques. A waiting list control group was included (N = 12). The cognitive therapy group focused on facilitating students' awareness of anxiety and helping students to learn ways of coping with anxiety during the course of an exam. The systematic desensitization group used progressive relaxation training and hierarchy construction and presentation. The combined systematic desensitization and cognitive modification group used systematic relaxation and cognitive coping methods designed to deal with both the worry and emotionality components of test anxiety. The pseudotherapy group used meditation exercises which emphasized heightened body and mental awareness. The waiting list control group was given the pre- and posttest assessment measures in the same

way as the other groups. Dependent measures were self-reports (Anxiety Differential and the STAI) and performance measures (Grade Point Average and Digit Symbol Test). The results of this study demonstrated that the cognitive therapy treatment group was superior to the other treatment groups on both self-report and performance measures.

A further study by Hahnloser (1974) compared cognitive modification, attention training, relaxation training, and an untreated control condition. Once again, cognitive modification was found to be significantly more effective than either of its component procedures in terms of reducing debilitating test anxiety and increasing facilitative behaviour. Once again, these improvements extended to the performance measures.

One study which may be cited as a caveat to the above studies is research by Leal, Baxter, Martin, and Marx (1981). In this study, 30 grade 10 students were assigned randomly and in equal numbers to either a cognitive modification, systematic desensitization, or a control group. Raven's Standard Progressive Matrices, the State-Trait Anxiety Inventory and the Anxiety Differential were administered as pre- and posttest measures. The systematic desensitization treatment appeared to be significantly more effective than the cognitive modification or waiting list control group on

the performance measures, while the cognitive modification group was more effective on one of the self report measures. The authors hypothesized that systematic desensitization may have been more effective in dealing with the emotional arousal component of test anxiety, while cognitive modification may have been more effective in dealing with the worry component.

Worry and Emotionality

"Early investigators seemed wedded to the asumption, often implicit, that anxiety level was equivalent to emotional arousal" (Wine, 1980, p. 381). Wine indicates that different treatments such as, systematic desensitization, implosion, relaxation training, autogenic training, and biofeedback all have tended to view emotionality as the major characteristics of test anxiety. In her review of 43 test anxiety studies, Wine found only two which focused solely and specifically on an entirely cognitive aspect of anxiety - i.e., worry, and yet a growing body of evidence suggests that high arousal situations elicit a tendency to worry about possible failure and to direct more attention to self-related thoughts (e.g., Sarason, 1975; Wine, 1971). In such situations, highly test anxious individuals turn their task relevant cognitions into task irrelevant cognitions as soon as the situation is appraised

threatful. For example, in test situations, the evaluation of one's performance can be appraised as a threat to self-esteem. Highly test anxious individuals are overly concerned with self-doubt and the consequences of failure. They worry about their performance and direct their attention to self defeating ruminations rather than to the task at hand. This so-called "direction of attention" hypothesis can be traced back to the work of Liebert and Morris (1967) who first postulated the two components of test anxiety - worry and emotionality. The "worrying" cognitions refer to concerns about performance, negative self-evaluation and conseguences of failure. The emotionality aspect of test anxiety refers to affective physiological arousal.

Much of the current research just reviewed suggests the primacy of the worry component in test anxiety and therefore supports a more precise empirical examination of the effects of cognitive interventions. Wine (1980) maintains that cognitive therapy is an umbrella term which covers cognitive modification, self-instructional training, rational emotive therapy, and attentional training. Very little research at this point has compared these approaches. Wine argues that the next crucial task for research in test anxiety is to differentiate between these cognitive treatments and to assess

their relative effectiveness. The full import of the current study may now be seen, set against the historical backdrop of previous research and under the limelight of contemporary concern with cognitive therapy.

While the two cognitive interventions have been variously studied in relation to test anxiety, researchers have tended to create "composite" treatments that are not consistent with the underlying cognitive learning theories per.se. An example of this is the work of Goldfried, Decenteceo and Weinberg (1974), in which rational emotive therapy tenets are incorporated with self-control and self-instructional training. The authors refer to this hybrid as "systematic rational restructuring". Goldfried, Linehan, and Smith (1978) subsequently examined the effectiveness of systematic rational restructuring in the reduction of test anxiety. Test anxious undergraduates from two separate universities were randomly assigned to systematic rational restructuring (N = 10), systematic desensitization (N = 10) and a no treatment control condition (N = 8). Results indicated greater effectiveness for systematic rational restructuring on both self-report and performance measures. The issue that remains unanswered is: what specific aspect of the systematic rational restructuring produced the results - rational emotive therapy or self-instructional training.

With respect to self-instructional training, Meichenbaum's (1972) study of test anxiety with college students has already been cited. Additional studies have built upon Meichenbaum's pioneering work. Holroyd (1976), for example, in an empirical comparison of the effects of cognitive modification and systematic desensitization showed both interventions to be equally effective in reducing self-reports of debilitating test anxiety. Remaining studies of this type have been unpublished dissertations which exhibit various threats to experimental validity.

Rational Emotive Counselling and Self-Instructional Training

Albert Ellis developed rational emotive therapy in the 1950's. Self-instructional training is the result of the more recent work of Donald Meichenbaum. Both rational emotive therapy and self instructional training are cognitive therapies. Both theories posit that between an external event and an emotional or behavioural response, a conscious thought occurs. Ellis spells out the implication of this in his simple statement that "thinking creates emotion" (Ellis, 1976). This mediational role of thinking in determining behaviour views human beings as active participants in their own development. Environmental events, per se, although important are not of primary importance.

As Meichenbaum (1977) says, "it is what the client says to himself/herself about these events that influences his/her behaviour".

Though both theories are cognitive, Wilson (1978) suggests that the cognitive theoretical framework itself is a relatively diversified amalgam of principles and procedures that have yet to be formalized into an overall integrated system or model.

Rational Emotive Counselling

The rational emotive perspective may be elaborated as follows. Where A is the existence of a fact or event and C is the emotional consequence of that event, it may be believed that A causes C. In fact, B, which is the person's belief system about A, causes C (Ellis, 1976). The belief system at B may be one based upon rationality or irrationality. Therefore, the consequence of C may be either rational or irrational. Thus, people are born with a potential to be rational or irrational depending on the nature of their belief system.

People's tendency to irrational thinking (self-damaging habituations), is frequently exacerbated by their culture and their family group. According to Ellis (1976) within society, there are 12 commonly held irrational beliefs which individuals are taught systematically (Ellis, 1976). An example of one of these ideas is the notion that it is a direct necessity

for an adult to be loved or approved of by everyone for everything he/she does. Once this idea is internalized from society, the individual tends to reindoctrinate him/herself through self-statements until his/her total belief system becomes irrational. Ellis postulates that a more rational belief would be for the individual to concentrate on his/her own self-respect, on winning approval for necessary purposes, and on loving rather than being loved.

The eleven other societal irrational beliefs tend to fall into three groups; (1) those that focus on blame, whether self-blame (guilt) or other blame (hostility); (2) those that catastrophise (what happens is not just unfortunate but terrible); and finally (3) irrationalities that idealize (for example, "I must be perfect", "I should be treated more fairly", "I ought to do better"). Thus, the basic personality theory of rational emotive therapy is that human beings largely create their own emotional consequences; they are born with a distinct proclinity to do so, and learn, through social conditioning, to exacerbate (rather than minimize) that proneness. Nevertheless, people have the ability to understand what they are believing to cause them discomfort and to train themselves to eliminate their self-sabotaging beliefs (Ellis, 1975).

Ellis suggests the way to help people minimize their dictatorial, dogmatic, absolutistic core philosophy is in the following three ways:

1. - Cognitive therapy. In the case of test anxiety, cognitive therapy should attempt to show students that they had better give up perfectionism if they wish to be less anxiety-ridden. Students need to know how to recognize "shoulds", "oughts", and "musts", and how to separate rational non-absolustic beliefs, from irrational, absolustic beliefs. For these ends the treatment may be didactic, information-giving, and explicatory. The students also should be expected, in a group setting, to encourage each other - to discuss, explain, and reason with each other.

2. Emotive-evocative therapy. This should be used to help change students' core values, employing various means of dramatizing truths and falsehoods. It may involve role-playing, modeling of more rational belief systems, humour to reduce disturbance-creating ideas to absurdity, and exhortation to persuade people to give up some of their irrational beliefs. Imagery also might be used. For example, students might be asked to imagine themselves in a test-taking situation, keeping their thoughts rational and noticing the difference this makes to their feelings.

3. Behaviour therapy. This is used in rational emotive therapy to help students change their dysfunctional symptoms and to become habituated to more effective ways of performing and of managing their cognitions. These methods are often used in the crucial homework stage of treatment (Ellis, 1975). This stage might involve purposefully failing to see that the consequences of failure are not absolutely catastrophic. At another level, Ellis also might employ operant conditioning techniques to ensure that homework assignments are completed.

The goal of the three treatment methods in rational emotive counselling (REC) is to assist the client to dispute irrational beliefs logically and empirically, and to replace them with more rational beliefs - the result being a set of sensible cognitive effects. Ellis puts it this way:

> This remains my main goal, to induce the client to examine his/her philosophic premises, to think about them concertedly, to understand they are based on illogical and inconsistent assumptions and then to attack them until they truly disappear.
>
> Ellis (1973, p. 157-158).

Irrational beliefs are replaced with rational, logical thought patterns which may be applied in a variety of life situations. In doing so the individual becomes master of his or her own behaviour.

For many years, Ellis substantiated rational emotive therapy not through research but by appealing to "a good many years of clinical experience" (Ellis, 1973). More recently Ellis has broken his theory into 32 hypotheses and has cited over 500 studies that support one or more of these hypotheses (Ellis, 1979). Ellis describes the support for REC as, "immense, indeed almost awesome" (Ellis, 1976, p. 321). However, Mahoney (1977, p. 121) offers the following caveat; "truth cannot be measured by the bulk of a bibliography".

Self-Instructional Training

The goal for self-instructional training (SIT) is somewhat different although obvious similarities in process exist between REC and SIT. Meichenbaum (1977) envisages the goal of self-instructional training as an individual able to cope with stressful situations through the control of physical arousal and the changing of self-statements that habitually occupied his/her mind under stress. Self-instructional training is designed to influence the nature of the individual's internal dialogue. While it is possible that two or more individuals may share the same negative self-statements, there is no attempt in SIT to locate these cognitions within a pool of widely held societal irrationalities. Rather, it is the individual, idiosyncratic self-statements upon which attention

is focused. Meichenbaum (1972) has illustrated his particular theoretical perspective using test anxiety as an example. Meichenbaum asks us to imagine an exam situation in which some students hand in their exam early. For the highly test anxiety individual, this event gives rise to worrying self-statements such as "I can't get this problem; I'll never finish; how can that guy be done already". This results in increased anxiety and further irrelevant and self-defeating thoughts. In contrast, the low test anxious individual readily dismisses the other student's performance by saying to him/herself something like, "Those guys who handed in their papers early must know nothing; I hope they score this exam on a curve".

Self-instructional training involves three phases. In the first phase, an understanding is achieved concerning the nature of the client's presenting problem and an initial treatment plan is formulated. In the second phase, the counsellor helps the client explore, try on, and consolidate the recently achieved conceptualization of the present problem. In the final phase, the counsellor helps the client modify his/her self-statements and to produce new, more adaptive behaviours. During this process, the individual's reaction is broken down into four stages rather than being dealt with as one massive reaction. In the first stage, the individual

is taught self-statements that pertain to preparing for a stressor. In the second stage emphasis is on confronting and handling a stressor. The third stage deals with the possibility of being overwhelmed by a stressor. The final stage plans reinforcing self-statements for having coped.

> The client's maladaptive behaviours, thoughts, and feelings became the signals, the cues for him/her to employ the coping techniques she/he learned and practiced in therapy.
>
> Meichenbaum (1977, p. 174).

Self-instructional training techniques fall into two categories. The first one is direct action. This includes collecting information, arranging escape routes where necessary, and learning physical relaxation exercises in an anxiety provoking situation. The second category is cognitive coping. This includes learning the importance of self-statements and developing alternative self-statements. These alternative self-statements are established and rehearsed. Once the client is aware of any anxiety engendering self-defeating, self-statements he/she uses this awareness as a cue to use the coping self-statements. The coping self-statements conclude with a series of reinforcing self-statements such as "I did well, it worked; I'm doing better every time". Once clients have become proficient in employing these cognitive and

behavioural skills, they are tested under actual stressful conditions. Individuals are thus provided with realistic, stressful situations which they are able to experience and use the various coping mechanisms that have been learned.

SIT has been the subject of a number of empirical studies. For example, Meichenbaum's research began by teaching hyperactive children to control impulsiveness with self-talk. (Meichenbaum, 1972). Further research has been conducted with both schitzophrenic and normal populations and has focused on everything from creativity training, to depression, to sexual dysfunction (cf., Meichenbaum & Genest, 1980). SIT has been used with multiphobic clients and to treat test anxiety (Meichenbaum & Cameron, 1972). Recently SIT has been used by Novaco (1975) to teach personal control in managing arousal to individuals with chronic anger problems. Similarly Turk (1975) has used self-instructional training in the treatment of chronic pain.

Critical Differences Between REC and SIT

Whereas both REC and SIT emphasize the importance of self-statements and cognitions as components of maladaptive behaviour there are some critical differences between their approaches. Where Ellis tends to focus on a set of core irrational ideas, Meichenbaum has had more interest in idiosyncratic thought

patterns. Meichenbaum also has devoted more attention to the role of graduated practice in his cognitive training package (Meichenbaum, 1977). Self-instructional training presents a more heterogeneous package which contains elements of desensitization, modelling, and behaviour rehearsal.

A further difference is that SIT emphasizes practical coping skills for dealing with problematic situations while REC emphasizes the total destruction of maladaptive beliefs. Whereas REC highlights the rationality of a thought, believing that rationality is synonymous with adaptiveness, SIT places more emphasis on the adaptive and constructive alternative to a particular cognition. The goal for SIT becomes a person able to cope with anxiety, whereas the goal of REC is mastery over any situation.

In actual technique the style of REC is direct confrontation of clients' irrational ideas (Ellis, 1975). Meichenbaum (1977) adopts an approach in which counselling is structured so that clients discover for themselves the inaccuracies and distortions in their thinking. The client is helped to identify and alter thoughts through a more strategic progression of counselling intervention.

Statement of Hypotheses

There were three major hypotheses for this present study. The central hypothesis is that both the REC and SIT approaches will be more effective in the treatment of test anxiety than the placebo group. It is expected that this outcome will be consistent in both schools in which the study takes place. This outcome is expected to be demonstrated on both self-report measures of test anxiety and on performance measures. Such a prediction is consistent with previously cited research findings by Allen, Elias, and Zlotlow (1980), and also is consistent with the observations of Rachman and Wilson (1980) that, to the extent that treatment methods for test anxiety include some form of cognitive restructuring, changes on self-report and performance measures are more probable. This view of the primacy of cognitive interventions over comparative approaches is shared by Wilson (1978) who also reviews research findings and concludes that cognitive interventions produce comparatively better results.

The second hypothesis is that the SIT groups will improve students' self-reports of test anxiety and students' test performances more significantly than the REC group. There several reasons for making this prediction. In reviewing

research on REC and SIT interventions, it appears that the major part of the empirical literature endorses the SIT approach. REC on the other hand has largely been substantiated with reference to individual case studies (Ellis, 1977). In a similar vein, SIT has also been used previously in the alleviation of test anxiety (Meichenbaum, 1972). There is no documentation that REC has been used successfully in similar situations.

Another reason for choosing SIT over REC is that the SIT focus is on idiosyncratic thought patterns rather than on a set of core irrational beliefs. This focus would seem to allow for a more individual appraisal of thought patterns - permitting students to discover for themselves their own cognitive distortions and inaccuracies. In comparison, REC seeks out irrational beliefs and attempts a total destruction of them by active disputation.

Although there have been few research efforts to compare REC and SIT, there has been one comparative test anxiety study by Fletcher (1979) who found SIT to be more effective in alleviating test anxiety than REC. The second hypothesis in this study is consistent with Fletcher's findings.

A final hypothesis is that there will be an exception to the above second hypothesis on one variable. It is predicted that on the STAI-trait variable the REC group will improve more than the SIT group of the control group. This prediction is based on Ellis's (1975) assertion that REC treatment effects may have more generality ability than other approaches. It is Ellis's belief that REC provides a total approach which may be applied in a variety of circumstances. If this were the case it would be expected that this would be demonstrated in the STAI-trait results, which is a measure of stable differences in anxiety proneness and applies to a variety of life situations.

The Present Study

In this chapter test anxiety theories and research literature have been presented. The specific hypotheses that have guided the design of this study and the analysis of data also have been reviewed. The present study contains two experiments to test these hypotheses. The two experiments took place in two different schools.

In each of these two schools identical procedures and the same design were employed. Where differences did occur in the schools, these differences are explored in the following chapters and any implications for the outcome are stated. The

replicate experiments in each school are explained and analyzed in Chapter III and Chapter IV.

CHAPTER III

EXPERIMENT ONE

The purpose of this chapter is twofold; first, the methods used in the preparation and execution of experiment two are discussed. The second purpose is to outline the obtained results. Initially information is provided on the experimental setting and on the participants who took part in the experiment. Both the instruments used for screening purposes and as dependent variables are outlined. The design of experiment one is discussed.

The treatments used in experiment one are overviewed, and individual treatment sessions described. The results of experiment one are presented, psychometric properties of the instruments, descriptive statistics and analyses of variance with appropriate contrasts.

Methods

Setting and Participants

This study took place in a junior secondary school (grades eight to ten), with a total enrollment of approximately 800 students. The school was located in a suburban community 10 miles from a major city. The socioeconomic status of the

community was largely middle class.

An initial group of 78 volunteer grade 10 students was assessed on levels of test anxiety, study habits, and specifity of anxiety. From this initial group, 41 participants were selected for the study (see Procedures section for specific selection criteria). Student volunteers participated as subjects in the study on the basis of information about the project provided to them by their regular school counsellor and by information contained in letters home to their parents for the purpose of providing consent (see Appendix A). The information given to the students included statement of commitments and experimental goals. The students then were assigned randomly under the constraint that the groups were balanced for sex.

The random assignment of students resulted in the following treatment group composition, 14 participants were assigned to the rational emotive counselling group (five male, nine female), 14 participants were assigned to the self-instructional training group (five male, nine female) and 13 participants were assigned to the placebo group (six male, seven female). Actual complete pretest-posttest results were not achieved on all students. This was due to attrition and extraneous school factors such as field trips and transfers. The final group composition for pre-post testing was as follows, nine REC (4 male, 5 female), 12 SIT (3 male, 9 female), and nine placebo (4 male, 5 female).

Instruments

Two sets of instruments were used. One set was used for screening the entire pool of volunteer participants. The second set was used as dependent variables employed at pre and post measurement periods.

Screening instruments. The purpose of using the screening instruments was to attempt to ensure that students selected for participation in the experiment were experiencing high levels of test anxiety, paired with low to moderate levels of general anxiety, without impairment of appropriate study skills. The three instruments employed for this purpose were the Study Habits Checklist (Preston & Botel, 1967), the Fear Survey Schedule (Wolpe, 1969), and the Test Anxiety Scale (Sarason, 1978). The Study Habits Checklist is a 37-item self-report inventory with a 5- point Likert response scale. The test is rated as applicable for grade nine to university level. The test's 37 items are divided into 10 sections related to study habits and exam preparation. A validity study by Brown (1964), indicated that 4 of 16 variables distinguished between over- and under-achievers. Reliability as ascertained by corrected split-half correlations for grades nine to twelve is .91. A more accurate method for determining study skills of students might have been to obtain samples of current

samples of classroom work and homework, however, this would have been extremely time consuming. This was particularly so since the only intent of determining which students had inadequate study skills was to eliminate such students as possible participants in the experiment since their anxiety may have been due to poor study skills rather than to test anxiety per se.

In its original form, the Fear Survey Schedule (Wolpe, 1969) is an 108-item questionnaire, which employs a 5- point Likert response scale to assess generalized fears of things or events. The purpose of employing this schedule as a screening instrument was to eliminate from the study those students with high levels of general anxiety. This helped to ensure that treatment sessions could focus specifically on test anxiety alone. The Fear Survey Schedule was adapted slightly for this study in order to make it appropriate for a group of 15- and 16-year-old adolescents in a public school. Items concerning sexuality and religion were deleted (items numbers 21, 33, 38, 41), and other items pertinent to grade 10 students were added (items 66, 73, & 88). The revised Fear Survey Schedule became a 99-item questionnaire. All deletions and additions were made with the permission of Dr. Wolpe (letter of permission in Appendix B). The revised Schedule

is contained in Appendix B. Previous studies on the original Schedule indicated a test-retest reliability over five weeks of .72 (Suinn, 1969). A study by Geer (1966), indicated that individuals classified as experiencing high fear, on the basis of scores on the Fear Survey Schedule had a more elevated galvanic skin response than control group subjects when exposed to a fear situation. Kanfer and Goldstein (1975) claim that the Fear Survey Schedule is widely used both in clincial practice and research to assess the range of fear arousing stimuli to which an individual is susceptible.

The Test Anxiety Scale (Sarason, 1978) is a 37-item, true-false scale that measures both the worry and emotionality components of test anxiety. Minor modifications were made to this scale in order to make it applicable to grade 10 students. In its original form the questions pertained to college level students, therefore items referring to college or professors were altered to refer to high school and teachers. The items affected were: 16, 20, 21, 24, 34 and 37. The letter of permission from Dr. I. Sarason and the revised Scale may be found in Appendix C.

Tryon (1980) reports that the Test Anxiety Scale is one of the most widely used scales in test anxiety research. It has appropriate content validity and proven construct validity

and reliability (Sarason, 1978).

Dependent variable instruments. The four dependent variable instruments employed in this research were, the State-Trait Anxiety Inventory - State Form (Spielberger, 1970), the State Trait Anxiety Inventory - Trait Form (Spielberger, 1970), the Test Anxiety Inventory (Spielberger, 1980), and the Canadian Test of Basic Skills (King, 1982).

The Test Anxiety Inventory (Spielberger, 1980) was used as a self-report measure of test anxiety. The Test Anxiety Inventory (TAI), contains 20 items which measure students' self-reported anxieties in a test situation. Students use a four point scale to report how frequently they experience specific symptoms of anxiety in test situations. The four choices ranged from (1) almost never to (4) almost always. For example, item 11 states: "During tests I feel very tense", and students select the numerical response level that best describes how they generally feel during tests. All 20 items are used to determine the TAI total score. The TAI also contains two subscales which measure the two major components of test anxiety - worry and emotionality. The test-retest reliability coefficients of the TAI total scale for high schools students is .81 over a one month period (Ross, 1978). However, for the same high school students tested after 6

months, the reliability coefficients dropped to .62. Spielberger accounts for this difference by postulating that during six month intervals, personality traits may change, causing lower stability coefficients. Secondly, high school students may clarify college or career plans during such a period of time. Increased test anxiety might be expected in students whose plans include college or further education, whereas those who look forward to employment in which test performance was less important might experience reductions in test anxiety (Spielberger, 1980).

The alpha reliability coefficient for the TAI is .91. The concurrent and construct validities of the TAI are provided through the pattern of correlations between the TAI, the TAS, and Liebert and Morris's (1967) Worry and Emotionality Questionnaire (WEQ). The correlation of the TAI total scale with the TAS, was .82 for males and .83 for females. Spielberger suggests that the 20-item TAI and 37-item TAS are essentially equivalent measures. Similarly, the Worry and Emotionality Questionnaire - Worry scale correlated .74 with the TAI worry scale and the Worry and Emotionality Questionnaire - Emotionality scale correlated .84 with the TAI emotionality scale.

The State-Trait Anxiety Inventory (STAI) (Spielberger, 1970) comprises two distinct self-report scales associated with two different anxiety constructs - state anxiety (A-State) and trait anxiety (A-Trait). The A-Trait scale consists of 20 statements that ask people to describe how they generally feel. The A-State comprises 20 statements focused on how the subjects feel at a particular point in time. The A-State scale measures the extent of feelings such as tension, nervousness, worry, and apprehension, in particular contexts. The A-Trait scale, on the other hand, is more a measure of proneness to anxiety, and refers to relatively stable individual differences in how people tend to respond to situations perceived as threatening.

The test-retest reliability coefficients for the STAI-State tend to be low (median r = .32). This might be expected since situational factors heavily influence state measures (Spielberger, Gorsuch, & Lushene, 1970). Internal consistency is high, with alpha reliability coefficients ranging from .83 to .92 (Spielberger, Gorsuch, & Lushene, 1970). Evidence for construct validity in a normal and exam condition is available for 977 undergraduate college students. Mean scores for state anxiety were "considerably higher in the exam condition than in the norm condition for both males and females"

(Spielberger, Gorsuch, & Lushene, 1970, p. 11).

The internal consistency of the STAI-Trait scale appears to be high. The alpha reliability coefficients ranged from .83 to .92, similar to the State scale (Spielberger, Gorsuch, & Lushene, 1970). Test-retest reliability coefficients are relatively high, ranging from .73 to .86. Evidence of the concurrent validity of the A-Trait scale is based on the moderately high correlations between the A-Trait scale and a variety of other anxiety scales. For example, the Manifest Anxiety Scale has a correlation of .83 with the A-Trait Scale (Taylor, 1953). The IPAT Anxiety Scale (Cattell & Scheier, 1963), correlates at .76 with the A-Trait scale. The inter-correlations among these scales are such that Spielberger (1970) considers them as alternate measures to the A-Trait scale.

The Canadian Test of Basic Skills (CTBS - High School Edition, King, 1982) is based on the Iowa Test of Basic Skills (Hieronymus, 1961). The CTBS is designed for grades 9 to twelve and is intended as a comprehensive appraisal of student progress toward widely accepted goals in secondary education (King, 1982). The CTBS consists of the following subtests: reading comprehension, mathematics, written expression and using sources of information. Each subtest is 40 minutes in

length, and there is an average of 120 questions in each subtest. The two subtests used in this particular research were the reading comprehension and mathematics subtests. The reason two subtests were chosen was that sometimes student anxiety is not specific to one subject but differs for different school subjects. It was felt that the reading and math tests would be more appropriately used together than using one or the other. The split halves reliability coefficients for these two tests were .86 and .91 respectively based on research which included a variety of high schools (King, 1982). King's (1982) research also has touched upon intercorrelations between subtests. The math and reading comprehension test correlate at .71. This correlation indicates the extent to which the obtained scores measure something in common. In terms of content validity, although a recently published test, the CTBS has had forty years of evolution because of its association with the Iowa Test of Basic Skills. Criteria for item selection, placement, and distribution were as follows. Current instructional trends and instructional materials were studied, recommendations of authorities were acted upon (e.g., methods specialists, curriculum committees, writers of methods books in subject matter area), and technical characteristics of items relating to content validity were

studied (King, 1982).

For the purpose of this study, the CTBS was used as a measure of performance to assess the effects on academic performance of anxiety in the test situation. Two subtests were used since the literature suggests test anxiety may be specific to some individual tests (Sarason, 1980). The CTBS was chosen because it is very similar to tests typically used in secondary schools.

Design and Procedures

This study employed a two factor mixed design with repeated measures on one factor. The first factor is between subjects and is the treatment factor, with the three levels of this factor being self-instructional training, rational emotive counselling, and attentional placebo. The second factor is within subjects and is a measurement factor with pretest and posttest repeated measurements.

From an initial group of 79 volunteers, 41 volunteers were selected. The 41 volunteers were selected on the basis of their scores on the screening instruments - i.e., the Fear Survey Schedule, the Test Anxiety Scale, and the Study Habits Checklist. The screening tests were conducted four weeks prior to pretesting and were administered by the same counsellor who was to give the counselling interventions. The tests were

administered using a standardized set of instructions (see Appendix D). When the results of these screening tests became available cutoff scores on each screening test were established. These cutoff scores were based on previous research (Baxter, 1979) and on the premise that selected participants should be primarily test anxious rather than generally anxious, and that their anxiety was not due to study problems. However, when cutoff scores were applied to the participants' results it was discovered that only eight students could be eliminated on all three variables (i.e., they exhibited low test anxiety, high levels of generalized fear and poor study habits). In order to screen more students low test anxiety scores were combined with poor study skills scores and those students were then eliminated from the study. This screened out a further 11 students. Low test anxious students were then screened if they had high general fear scores and this screened out six more students. The final 12 students were screened on the basis of low test anxiety without regard to the two other variables. This four step process and selected cut off scores for each screening test is outlined in Figure 2. The 41 remaining students were assigned randomly to the three counselling groups under the constraint that the groups were balanced for sex. The random assignment resulted in 14

Figure II: The four step screening process and cut off scores.

Step 1

Low test anxiety (56-)
High general fear (211+)
Poor study habits (96-)

Yes ? → Out: 8

Step 2

Low test anxiety (56-)
Poor study skills (96-)

Yes ? → Out: 11

Step 3

Low test anxiety (56-)
High general fear (211+)

Yes ? → Out: 6

Step 4

Low test anxiety (56-)

Yes ? → Out: 12

participants assigned to each of the SIT and REC groups and 13 assigned to the placebo group.

Prior to commencing the counselling phase of the study the pretest instruments were administered using a standardized set of instructions (see Appendix D). The tests administered were the STAI-State form, STAI-Trait form, the TAI, CTBS-Reading subtest, and the CTBS-Math subtest.

The counselling sessions themselves were conducted by a graduate student in educational counselling. This counselling student had seven years of direct counselling experience. This student was not previously known to the participants. The graduate student conducted all eight counselling sessions for each of the three groups involved, following a detailed manual outlining the counselling sessions step by step. Each counselling sessions plan contained a list of objectives, the materials required, a guide for counsellor activities and skills, and a listing of student activities. Homework assignments and worksheets were similarly available in the manual. All counsellor activities were prefaced with a brief statement of what the counsellor would be doing and how much time in the 50-minute lesson would be allotted to that activity. These manuals were the subject of curriculum development and field testing research which was taking place concurrently with this study (Wallace, 1982; Merrick, 1982). The graduate student

rehearsed the sessions before the actual counselling session.

All groups received eight counselling sessions, and each session was 50 minutes in length. The counselling sessions were given in the following order: in the first week, lesson one was given for all groups; in the second week, lessons two and three were completed; in the third week, lesson four and five were given; in the fourth week, lessons were six and seven; and finally, lesson eight was taught in week five. Attendance records and records of homework assignments completed were kept by the counsellor.

Following the completion of the test anxiety programs, participants again were given the STAI-state, STAI-trait, the TAI and the CTBS reading and math subtests. The pretest was given to the participants one week prior to the commencement of counselling sessions and the posttest was given one week after the completion of the counselling intervention. Both pre- and posttests were administered by the counsellor who conducted the counselling sessions using standardized instructions (Appendix D).

Since all three groups met in the same school, students were encouraged not to discuss contents of their sessions with members of other groups. They were asked to consider group discussions as confidential.

Treatments

Self-instructional training. This procedure was based on the work of Meichenbaum (1974). Anxiety was explained to the participants as resulting from their thoughts and self-statements occurring before and during tests. Participants were told that an awareness of these self-statements was necessary so that they could actively engage themselves in creating incompatible responses to the anxiety engendering ones. Participants learned to recognize emotional arousal, learned to be aware of inappropriate responses, and finally, learned to replace these self-defeating or negative self-statements with more viable and positive self-statements. The sessions are briefly outlined in what follows.

Session one began with personal introductions and students' descriptions of what had brought them to the counselling sessions. The counsellor gave an overview of the test-anxiety counselling sessions and expectations. The counsellor led a discussion of test anxiety emphasizing meaning, duration, and degree of test anxiety. Students were given the task of focusing on physical changes that occur when they are in a test situation and were encouraged to record such observations in their homework log books. Students then shared some of their affective and physical observations with each other.

The counsellor summarized the session and set an initial homework assignment. The homework for the first session was to begin to list physical changes, strong feelings, and self-statements that occur during test situations.

Session two began with a group discussion focused on students' observations about physical changes, affect, and self-statements during test situations. Notations in students' homework log books supplied primary data for this discussion. The counsellor then explained how changing self-statements during a test situation can help to alleviate the anxiety that is being experienced. After this the counsellor overviewed the remaining part of the second session. Students then were instructed in relaxation breathing to be used when they experienced stress. The counsellor then modelled the process of self-verbalization, leading into a practice session in which students practiced "out loud" self-talk while completing a structured activity. After this practice the students came together as a group to talk about their practice experiences, and to receive instructions on their next homework assignment. The second homework assignment involved spending 10 minutes a day for 5 days practicing "out loud" self-talk. Students were to record their homework task in their log book. The goal of session two was to teach students how to recognize

self-talk and to practice "out loud" self-verbalization.

The goal of session three was for students to transfer from "out loud" self-verbalizations to whispered self-verbalizations. Initially, the homework assignment from the last session was reviewed. The counsellor then overviewed the objectives for session three and began a discussion on positive self-statements and how these might be used in evaluative situations. A new self-verbalization activity was introduced wherein the students role played in imagined test taking situations. This time the students, in triads, began to use whispered self-statements. One member of each triad made notes of particularly positive self-statements that other members of the triad used. The triads regrouped on completion of this activity, and a large group de-briefing ensued. Homework was then assigned. The task to be completed before the next session was to make a note of positive self-statements used in evaluative situations. These were to be written down in the homework log books provided.

The goal of session four was for students to gain experience in the application of covert, positive, coping self-statements. In this session the counsellor attempted to provide the students with a realistic test taking situation in which to practice both the breathing technique and the

positive, covert self-statements. The session began by overviewing procedures for the forthcoming session. The last homework assignment was then checked. The counsellor proceeded to elicit from students examples of positive self-statements which could be used in a test situation. These were recorded by all students. The counsellor then gave instructions for an actual paper and pencil test and students were instructed with respect to monitoring their self-statements in this test situation. Following the test, the counsellor encouraged the students to review and analyze their progress with covert self-talk. The homework assignment from this session required the students to practice covert self-statements for 10 minutes per day for 5 days. A worksheet was provided to assist them with this task.

The goal of session five was to review the procedures used so far and to role play typical test-taking situations using the skills learned to date. Initially, the students reported on their last homework assignment, and discussed any problems or difficulties they experienced. Next, the students were required to write in their log books a list of all the procedures and coping mechanisms which they had used to this point in the group sessions. Beside the list of coping skills, they were required to list the situations in which they would

use these skills. These lists provided the basis for a discussion of learning that had taken place so far. Since this was the mid-point of the counselling sessions, the remaining four sessions were outlined. The students were arranged in triads and a further practice of coping self-statements followed. The counsellor circulated around the room to check student performances. When the large group reassembled, the counsellor reviewed the progress of the whole group. The next homework task was to record the number of times during the week that the students used self-instructional training in actual anxious situations.

The goal of session six was to breakdown reactions to test situations into four parts; (1) preparing for a stressor, (2) confronting and handling a stressor, (3) coping with the feeling of being overwhelmed, and (4) making reinforcing self-statements. As part of this goal, the students were expected to construct positive self-statements for each of these phases and to practice using such self-statements in simulated experiences.

First, the students reported on the completion of their homework assignment. Two or three students were asked to review how they had used SIT in actual test taking situations. Second, the counsellor briefly introduced the concept of

panic, and reviewed the symptoms of panic by using examples elicited from the students. This led the counsellor to introduce the four phases described previously as a method to help control the panic reaction. The counsellor gave examples of self-statements for each phase and solicited other examples from the students. These self-statements for each phase were used in practice role-play situations. The homework assignment was to spend time improving individual lists of self-statements and to use these self-statements in tests the students were completing in regular classes. Results of these efforts were to be recorded in student log books.

The goal of session seven was to comprehend and practice the skill of thought-stopping (Cormier & Cormier, 1979). By the end of the session, it was planned that the students would recognize negative self-statements and would know how to use thought-stopping to prevent themselves from being over-whelmed by these negative and self defeating thoughts. Initially, homework was reviewed and students were encouraged to talk of their successes and problems in using previously learned skills in test situations. Second, the students were asked to review some key concepts by having them write definitions in their log books for such terms as anxiety cue, stressor, and relaxing breath. Students then were

introduced to the use of thought stopping. They were taught the purpose of this skill, how to develop personal and verbal cues to use it, and were offered examples of how thought-stopping might be assimilated into their repertoires of anxiety control skills. The students were arranged into groups and were given instructions on how to practice thought-stopping.

As a final part of this session, students were asked to find a comfortable position and to close their eyes. The counsellor used guided imagery to allow the students to imagine themselves in a test situation which provided them the opportunity to practice positive and coping self-statements. Following this activity, there was a group discussion in which problem areas were further assessed and discussed. The counsellor then reviewed the session and assigned the homework task. The homework was to practice further the use of self-statements in real and imagined test situations.

The goal of session eight was for each student to engage in a behavioural rehearsal of the skills learned in order to demonstrate competence. The homework assignment was reviewed and the four phase of self-talk prior to and during the test situation were reviewed, together with appropriate self-statements for each phase. Students were asked to summarize their definitions of self-instructional training by writing

such definitions in their homework log books. These definitions then were shared with other group members. The counsellor then directed students to demonstrate their competence in applying self-instructional training in imagined test situations. This was done in small groups with the counsellor circulating amongst the groups to offer encouragement. This session closed with a summary from the counsellor concerning the learning that had taken place to date and how it would benefit the students.

For a more detailed account of SIT counselling sessions, refer to Wallace (1982), which contains the actual manuals used for the self-instructional training procedures.

Rational emotive counselling (REC). This procedure was based on Ellis's rational emotive therapy (Ellis, 1977). Grieger and Boyd (1980) have conceptualized the rational emotive learning process in four phases: (1) skills in rational emotive diagnosis and goal setting; (2) skills in facilitating client insight; (3) skills in the rational emotive working through process; and (4) skills for helping clients ingrain new rational thoughts, feelings, and behaviours. When this framework was applied to the REC sessions, it was clear that the early sessions would focus on exploring the specific concerns of the students in terms of their anxiety around

tests. However, from that point on there would be considerable fluidity in moving between the four phases described by Grieger and Boyd.

The crucial phase of REC is the working-through phase in which the students systematically learn to give up their irrational ideas and to practise the process of rational thinking. The techniques of rational role reversal, written homework assignments, and rational-emotive imagery are all used in the way Ellis (1975) has used them in the past. Clearly, the counsellor's interaction with the students is critical, since it is the counsellor who must actively dispute the irrational beliefs of the student. The final outcome is one in which students have the ability to recognize their own irrational beliefs, are able to dispute these beliefs, and can replace them with more rational beliefs. These skills, it was thought, would allow the student to develop more rational consequences for activities such as test-taking. The eight REC sessions are briefly outlined in what follows.

The goal of session one was to introduce students to each other, to the major concepts of REC, and to the techniques of self-management implicit in REC. As an introduction to the major tenets of REC, the counsellor explored general connections between thinking and feeling, and how different interpretations

of a situation produce different emotions. In exploring test anxiety, the counsellor and students discussed the nature of test anxiety, the extent to which it interfered with students' lives, and how long the students had been disturbed by test anxiety. The self-management techniques were introduced and included a rewards and penalties system to encourage homework completion (Kanfer & Goldstein, 1975). Session one concluded by setting a homework assignment in which students were asked to read a series of beliefs and to think about whether they agreed with them or not.

The goals for session two were for students to identify their own irrational beliefs and be able to verbalize why these were irrational. Second, students were to describe their feelings during a test-taking situation. Finally, students were to be able to identify their own irrational beliefs in a test-taking situation and replace them with more rational beliefs. In order to achieve these goals, students completed a questionnaire which identified personal irrational beliefs. The counsellor also engaged in an instructed analysis of thoughts during testing situations by using rational emotive imagery. The second homework assignment asked students to describe two feelings they had experienced which were founded in irrational beliefs. Students also were asked to monitor

their beliefs in the forthcoming week in order to see if they could identify any irrational beliefs when these occurred.

The goal of session three was that the student would show mastery of the following skills: identification of feelings, identification of irrational beliefs, and substitution of irrational beliefs with rational beliefs. Students rehearsed rational thinking and disputed their irrational ideas. Rational emotive imagery and rational role reversal (where the counsellor assumed the role of student and the student took the role of counsellor and disputed the irrational beliefs of the student) were employed in a number of group exercises. Also introduced in this session was the A-B-C principle (Ellis, 1976). This allowed the counsellor to chart the rational-emotive process on an overhead projector. Students copied this diagram into their homework log books for future assistance in disputing irrational beliefs. The homework assignment asked students to complete an A-B-C form, using an activating event from their own experience.

The goal of session four was for students to refine their abilities to dispute their irrational beliefs in a variety of situations. The homework assignment from the previous session was reviewed. Next, students were asked to think of one other anxiety-provoking situation they had

encountered recently. The students then were asked to note in their log books a possible irrational belief which might accompany that situation. The counsellor then led the students through a sentence by sentence challenge of the irrational beliefs they had stated. The counsellor used questioning techniques to challenge, persuade, and confront the students. Counsellor questions focused on asking for proof and the careful checking of facts. The counsellor also attempted to expose the irrational consequences of catastrophizing.

The homework assignment was a worksheet that assisted the student to dispute an irrational belief using the techniques that had been taught in the lesson.

The goal of session five was to practice rational thinking by applying previously learned REC skills to simulated test taking situations. Following a check and review of completed homework assignments, students were instructed to place their heads on their desks and to relax. Rational imagery was used to describe a test-taking situation in which students controlled anxiety feelings by substituting irrational beliefs with more rational ones. Students were asked to signal the counsellor when they were able to do this.

Following this practice, the group was divided into triads, and the students were asked to complete a worksheet

similar to the one that was completed for the previous homework assignment. When the students re-grouped, the counsellor summarized the learning that had taken place in this session. The homework assignment from session five was for the students to enter in their log books at least two irrational beliefs they had experienced and to record how they changed those irrational beliefs to rational ones. A further assignment was to practice the rational imagery exercise for 10 minutes a day until the next session.

The goal of session six was to accumulate a list of rational statements and to incorporate these statements into individual belief systems. The counsellor spent time initially reviewing the previous homework assignment and ensuring that the basic REC self-management techniques were still being used. The counsellor then involved the group in a positive rational imagery exercise. This was done describing a test-taking vignette and including in that vignette a variety of rational statements that would assist students in maintaining control of their anxious feelings. Students also were asked to generate their own rational statements.

On completion of this task, the counsellor constructed a list of rational statements used by the students during the rational emotive imagery exercise to help keep themselves

relaxed. The students were asked to copy this list into their homework log books. The homework assignment from lesson six was for the students, in either a real or imagined situation, to practice identifying their irrational beliefs and changing them to more rational ones. Any resultant changes in sensations of anxiety were to be recorded in the log books.

The goal of session seven was to review the principal rational emotive tenets and to practise rational emotive skills learned in other anxiety-provoking situations. The homework assignment was checked and the counsellor proceeded to review the counselling session to date. This review went back to the first session and incorporated all the material that had been presented up to session seven. Following this, students were divided into triads and were asked to apply the A-B-C principle to a variety of anxiety provoking situations other than test anxiety such as; speaking in class, being "stood up" by a girl/boyfriend, not being allowed to go to a dance, or losing an important basketball game. A spokesperson from each triad reported back to the main group on how his/her group dealt with the particular incident assigned to it.

A final homework assignment was given in which students were asked to monitor a real life situation that was anxiety provoking. Students wrote this assignment in their log books.

They were instructed to identify the event, their irrational thoughts and feelings, then to record how they changed irrational to rational thoughts, and finally to record how their feelings changed as a result of this substitution.

The goal of session eight was for the students to demonstrate competence in applying rational thinking to a test-taking situation. First the counsellor checked homework and encouraged discussion around the real life situations where rational thinking had been used. The counsellor gave a summary of the other seven sessions and overviewed the current session. The counsellor emphasized that rational-emotive procedures constituted skills, and as such must be practiced continually in order to be effective. The counsellor used rational imagery at this stage, allowing the students to demonstrate competence in disputing irrational beliefs. The session was concluded by students discussing three major questions that were handed out in the form of a worksheet. The questions were: (1) As a result of what you have learned in the last few weeks, what have you been successful in changing? (2) Describe what methods you have used in order to make those changes? and (3) What would you still like to change?

For a more detailed account of the REC counselling sessions, refer to Merrick (1982) which contains the manuals used for

the rational emotive counselling program.

Attentional placebo. This counselling mode was based on relationship enhancement as derived from principles of non-directive therapy. Such counselling has been shown to have minimual therapeutic power (Rachman & Wilson, 1980), unless used in association with more goal directed psychological-instructional treatments. The eight sessions were structured in a counselling manual in a similar way to the other two interventions. Every session contained a set of objectives, a list of materials required, a listing of counsellor activities and counsellor skills, and a listing of student activities. The 50-minutes session was again divided into specific counselling segments. The placebo sessions were rehearsed and practiced in a similar way to the REC and SIT sessions. Each session was built around a particular theme. The sessions are outlined in what follows and copies of the actual lesson plans are located in Appendix E.

The theme of session one was "get acquainted". Students were encouraged to get to know each other and the counsellor, using a variety of social activities.

In session two the theme was test anxiety. This session involved talking generally about what test anxiety is, and how students have reacted to it in the past.

Session three involved breaking into triads to discuss how teachers sometimes make test anxiety worse, and what kind of things teachers could do to make tests less anxious for students. When the triads had finished discussing this topic, the students regrouped and shared the results of their discussion.

Session four was similar to session three except the issue for discussion was whether certain school subjects cause more anxiety than others. Students were given the opportunity to discuss subjects which they found most anxiety provoking and were encouraged to speculate on the reasons for their anxiety.

In session five, the counsellor led a discussion on study skills. Students discussed efforts at studying during both school time and at home. Students then divided into triads and discussed ways to make more effective use of their study time. As a homework assignment, students recorded their study habits on a study schedule provided by the counsellor.

In session six the results of the students' efforts at monitoring their study habits were discussed in more detail. The remainder of the session was spent discussing the general concept of moral dilemmas as these relate to students in testing situations. The specific issue was how does a student handle cheating either by one's self or by a member of one's

class. What should students do if they see someone cheating or copying from them? Should they report the student to the teacher, just let the other student copy their work, or take the other student aside later and ask him/her not to do it again?

Session seven was spent discussing the general topic of fear. The Fear Survey Schedule was used as a way of pinpointing common fears in the group, which were later discussed and analyzed. The counsellor led the group in a discussion of the functions of fear, and typical reactions people have to fear.

Session eight continued the discussion of fear by comparing the fears of small children with the fears of adults. Why do fears change over time? The counsellor moved the group's attention at this point to phobias. The counsellor discussed how fear relates to phobias, and discussed major phobias using a worksheet distributed to the students. The session concluded with an overview of what had been accomplished in the eight sessions the students had attended.

Throughout these eight sessions the counsellor used such counselling skills as reflection of content, meaning and feeling to promote group discussion and to explore the test anxiety issues. These skills are described by Rachman and Wilson (1980) as fundamental to non-directive counselling

methods which focus primarily on relationship enhancement.

In this section, individual treatment and placebo sessions have been outlined. Finally it may be noted that the sessions pertaining to all three groups were rigorously constructed for parallelism across instructional activities, time allocation and homework assignments, etc.

Results

In this section, reliabilities of both screening and experimental instruments used in this study are reported, and descriptive statistics (means and standard deviations) for all treatment groups on each experimental variable at both pretest and posttest are summarized. Finally, inferential tests of between group and within group experimental differences are documented, and an overall summary of between and within group findings is presented.

Reliability of Instruments

Screening instruments. Cronbach alphas were calculated as an index of the reliabilities of the three screening instruments - Study Habits Checklist, Fear Survey Schedule, and the Test Anxiety Scale. The scores used in this calculation were derived from all participants in both studies described in this thesis (N = 103). The overall alpha for the Study

Habits Checklist was .89 with a median on the subscales of .61. The Fear Survey Schedule overall alpha was .96 with a subscale median of .84. The Test Anxiety Scale had an overall alpha of .91. The internal consistency of all three screening instruments was thus fairly high indicating that the screening decisions made on the basis of responses to these instruments were potentially valid.

Dependent variables. Overall alphas were calculated on all the experimental variables (STAI-State, STAI-Trait, TAI, TAI Worry Scale, TAI Emotionality Scale, CTBS Reading Comprehension subscale and the CTBS Math subscale). The overall alphas on the pretests were: STAI-Trait, .85; the STAI-State, .92; TAI-T, .93; TAI-W Scale, .86; TAI-E Scale, .87; CTBS-Reading Comprehension, .90; CTBS-Math, .85. Overall alphas on the experimental variables at posttest were as follows: STAI-State, .94; STAI-Trait, .87; TAI-I, .94; TAI-W Scale, .89; TAI-E Scale, .89; CTBS-Reading Comprehension, .90; CTBS-Math, .90 (n=50). Internal consistency of the three tests was generally very good. There was minimal fluctuation in alphas from pre- to posttest administrations. As indicated by the overall alphas on both the screening and on the experimental instruments, the tests used in this experiment were generally reliable.

Descriptive Statistics

Table II represents a breakdown of the means and standard deviations of the screening instruments for the three groups involved in experiment one. From an examination of this table, the following pattern emerges. First, it is apparent that on the Study Habits Checklist there is very little difference between the three groups. The Test Anxiety Scale scores are extremely similar with the REC group scoring 61.6, the SIT group 60.86, and the placebo group 62. On the Fear Survey Schedule, the REC group appears to be slightly higher than the SIT or placebo groups. Differences on all screening instruments appear to be slight and indicate that the random assignment procedures employed in this experiment did ensure equivalent groups for each of the three counselling groups.

In order to ensure that the counselling groups did not differ in degree of test anxiety, study habits, and their levels of generalized anxiety, one-way analysis of variance (see Appendix F) were performed on each of the screening variables (Study Habits Checklist, Fear Survey Schedule, and Test Anxiety Scale). No significant differences were found, thus confirming random assignment procedures.

In order to ensure there were no differences at pretest one way analyses of variance were performed on all of these dependent variables. Results indicated no significant differences between groups (see Appendix F).

Table II: Means and Standard Deviations of REC, SIT and control group on all Screening Instruments in Experiment One.

Measures	N	Group	$\bar{X}$	S.D.
Study	14	REC	102.75	19.99
Habits	14	SIT	92.00	24.89
Checklist	13	Placebo	101.09	14.91
Test	14	REC	61.58	3.84
Anxiety	14	SIT	60.86	4.17
Scale	13	Placebo	62.09	2.43
Fear	14	REC	262.42	52.98
Survey	14	SIT	221.85	41.13
Schedule	13	Placebo	216.64	62.77

Table III gives the descriptive statistics for experiment one. In reviewing the content of Table III, several points may be noted. First, a similarity is apparent across groups on all instruments at the pretest level; an example of this is the TAI total pretest scores which are all within three points of each other. A second feature is that at the posttest level scores have become much more dissimilar; for example, on the previously mentioned TAI, there is now a 16-point spread in the scores of the highest group compared with the scores of the lowest group.

With respect to pre- to posttest changes; results varied across the experimental variables. On the STAI-State, all three groups had a reduced score. On the STAI-Trait, the REC group remained constant while the SIT and control groups had slightly reduced scores. On the TAI (total), all three groups had reduced scores, although it is clear that the REC and SIT groups reduced their scores by a greater margin than the control group. This trend continued for both subscales of the TAI. On the CTBS-Reading Comprehension test, all three groups had improved scores, with the greatest improvement being achieved by the SIT group. The CTBS-Math test similarly showed improved scores for all three groups, although for this test both the REC and SIT groups enjoyed greater performance

Table III: Means and Standard Deviations of All Groups on all Dependent Variables both Pretest and Posttest in Experiment One

Measure	Treatment Group	Pretest		Posttest	
		$\bar{X}$	S.D.	$\bar{X}$	S.D.
STAI-State	REC (n=9)	52.89	12.89	46.00	12.87
	SIT (n=12)	57.75	10.83	44.58	14.07
	Placebo (n=9)	56.74	11.90	51.11	11.36
STAI-Trait	REC	45.00	5.57	46.55	6.23
	SIT	44.92	9.34	42.17	7.48
	Placebo	40.15	7.15	40.67	7.19
TAI-T	REC	57.33	12.46	41.33	8.18
	SIT	60.50	12.00	46.33	8.67
	Placebo	57.67	12.05	57.44	8.72
TAI-W	REC	22.00	4.90	15.67	3.00
	SIT	22.83	5.39	18.08	3.37
	Placebo	22.00	5.61	22.89	3.18
TAI-E	REC	23.44	5.59	16.44	3.94
	SIT	25.83	5.94	18.50	3.94
	Placebo	23.22	5.07	21.90	4.67
CTBS-Read	REC	18.67	6.88	20.78	9.23
	SIT	16.25	6.79	21.00	7.06
	Placebo	20.00	6.78	23.00	8.80
CTBS-Math	REC	16.78	7.79	20.56	8.16
	SIT	14.50	5.11	18.25	6.34
	Placebo	15.11	7.15	17.00	6.33

increments than the control group.

Between Group Inferential Tests

In order to test between group treatment effects, one-way analyses of variance (see Appendix F) were performed on the posttest variable scores - STAI-State and Trait, TAI-total, TAI-W Scale, TAI-E Scale, and the CTBS-Reading and Math tests. Significant treatment effects were apparent on the following instruments, the TAI-total ($F_{(2,27)} = 8.46$, $p < .01$), the TAI-W Scale ($F_{(2,27)} = 11.91$, $p < .01$), and the TAI-E Scale ($F_{(2,27)} = 3.922$, $p < .05$). There were no significant treatment effects on the STAI state and trait or on either of the performance measures.

To further analyse the source of the treatment effects on the TAI instruments, apriori contrasts were conducted. These apriori contrasts were based on the experimental hypothesis that the SIT and REC treatments would demonstrate significant improvements in test anxiety when compared to the control group and that the SIT treatment effects would be significantly greater than the REC treatment effects. Thus, these apriori tests contrasted the two treatment groups against the placebo group and the two treatment groups against each other.

On the TAI-T, these contrasts indicated that the treatment groups (REC and SIT) scored significantly lower than the

control group ($t_{(27)} = 3.99$, $p < .01$), and that there was no statistically reliable difference between the REC and SIT group.

On the TAI-W, the apriori contrasts indicated that the treatment groups (REC and SIT) scored significantly lower than the placebo group ($t_{(27)} = 4.69$, $p < .01$), and that there was no statistically reliable difference between the REC and the SIT groups. Similar results were obtained on the TAI-E. The apriori contrasts indicated that the treatment groups (REC and SIT) scored significantly lower than the placebo group ($t_{(27)} = 2.65$, $p < .05$), and that there was no statistically reliable difference between the REC and SIT groups.

While experimental results on the TAI instruments were the only ones to reach levels of statistical significance, results on other variables showed consistent trends similar to the ones above. The treatment groups consistently improved more than the placebo groups and in some cases these differences approaches the .05 level; e.g., STAI-Trait ($F_{(2,27)} = .19$, $p < .10$).

Within Group Inferential Tests

In order to examine experimental changes from pretest to posttest, two way analyses of variance (treatment x time) were conducted on the dependent variable scores (see Appendix

F). Results of these analyses indicated there were significant treatment by time (pretest - posttest) interaction effects on the TAI-T ($F_{(2,27)} = 6.48$, p .01), and on both subscales of the TAI (TAI-W, $F_{(2,27)} = 5.357$, p .01; TAI-E, $F_{(2,27)} = 6.221$, p .01). On these analyses main effects for groups were not statistically significant at the .05 level. Main effects for time were significant on the following instruments; STAI-State ($F_{(1,27)} = 17.22$, p .01), TAI-T ($F_{(1,27)} = 26.82$, p .01), TAI-W ($F_{1,27)} = 12.88$, p .01), TAI-E ($F_{(1,27)} = 45.37$, p .01), CTBS-Reading Comprehension ($F_{(1,27)} = 13.36$, p .01), CTBS-Math ($F_{(1,27)} = 21.13$, p .01).

To further clarify within group changes across time on the TAI-T, TAI-E, TAI-W, the Bonferoni t-test was used to compare pretest to posttest means on these variables for all three treatment groups (see Table IV).

An analysis of Table IV demonstrates several important changes that took place within groups. Firstly, none of the placebo group changes demonstrate any statistical significance. Secondly, SIT demonstrates statistically significant within group changes on the TAI-T and TAI-E. On the other hand, the REC group produced within group changes that were significant on all the TAI variables. Figures three to five graphically display the changes described in Table IV.

Table IV: Summary of Bonferoni *t*-test results between pretest and posttest means for all treatment groups on TAI, T, E, W.

	TAI-T	TAI-W	TAI-E
REC	4.52*	3.7**	5.07**
SIT	4.66**	3.2	5.92**
Placebo	.63	.52	.96

K = 3 * p .05
df = 27 ** p .01

Figure III: A Graph of Pre to Posttest Changes on the TAI-T in Experiment One

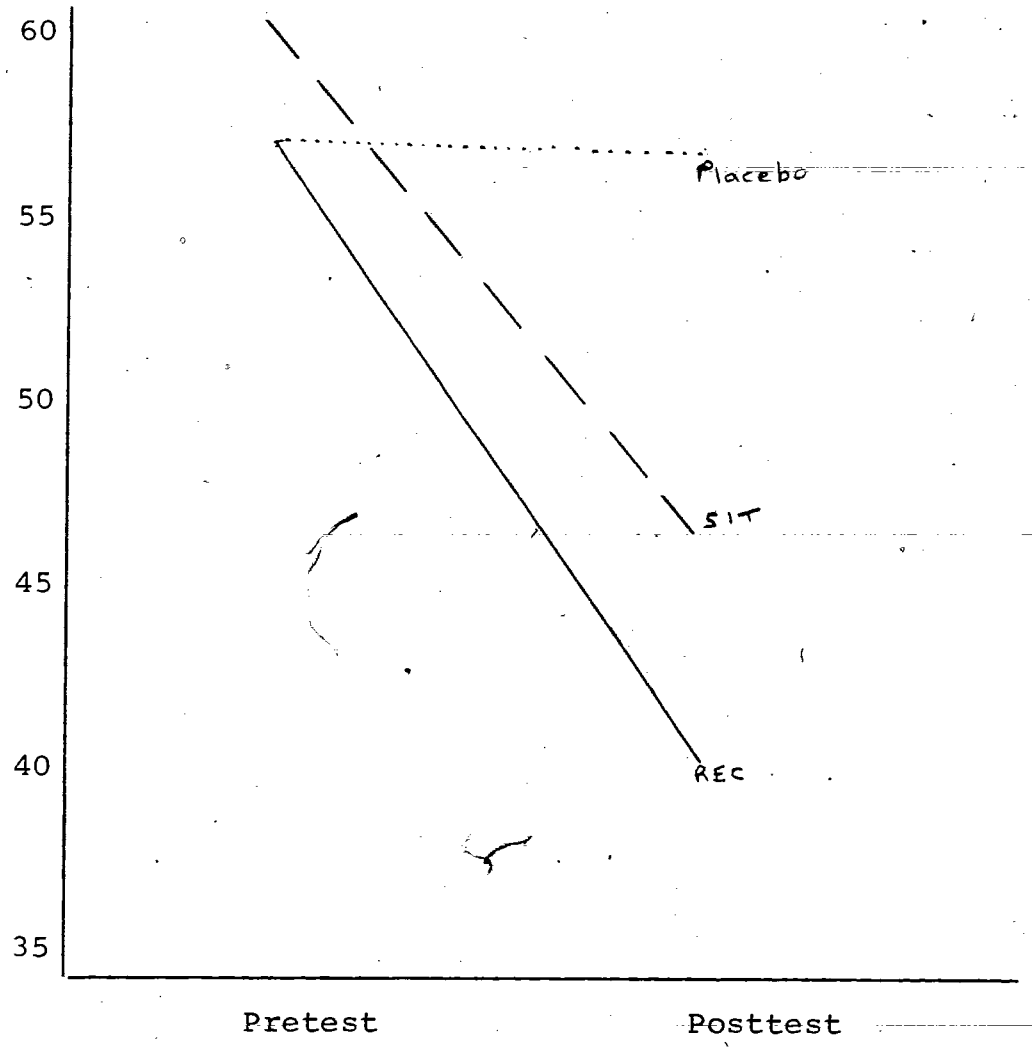


Figure IV: A Graph of Pre to Posttest Changes on the TAI-W in Experiment One

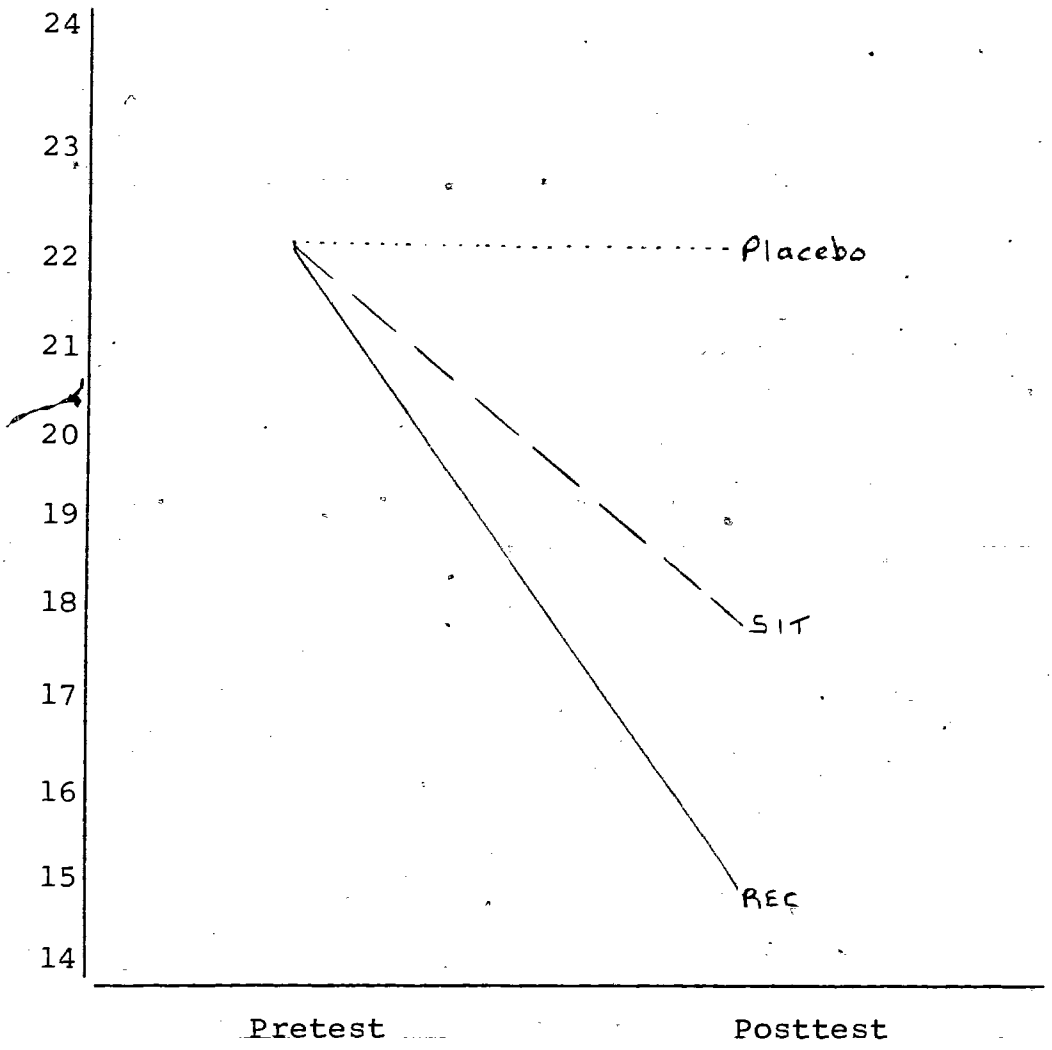
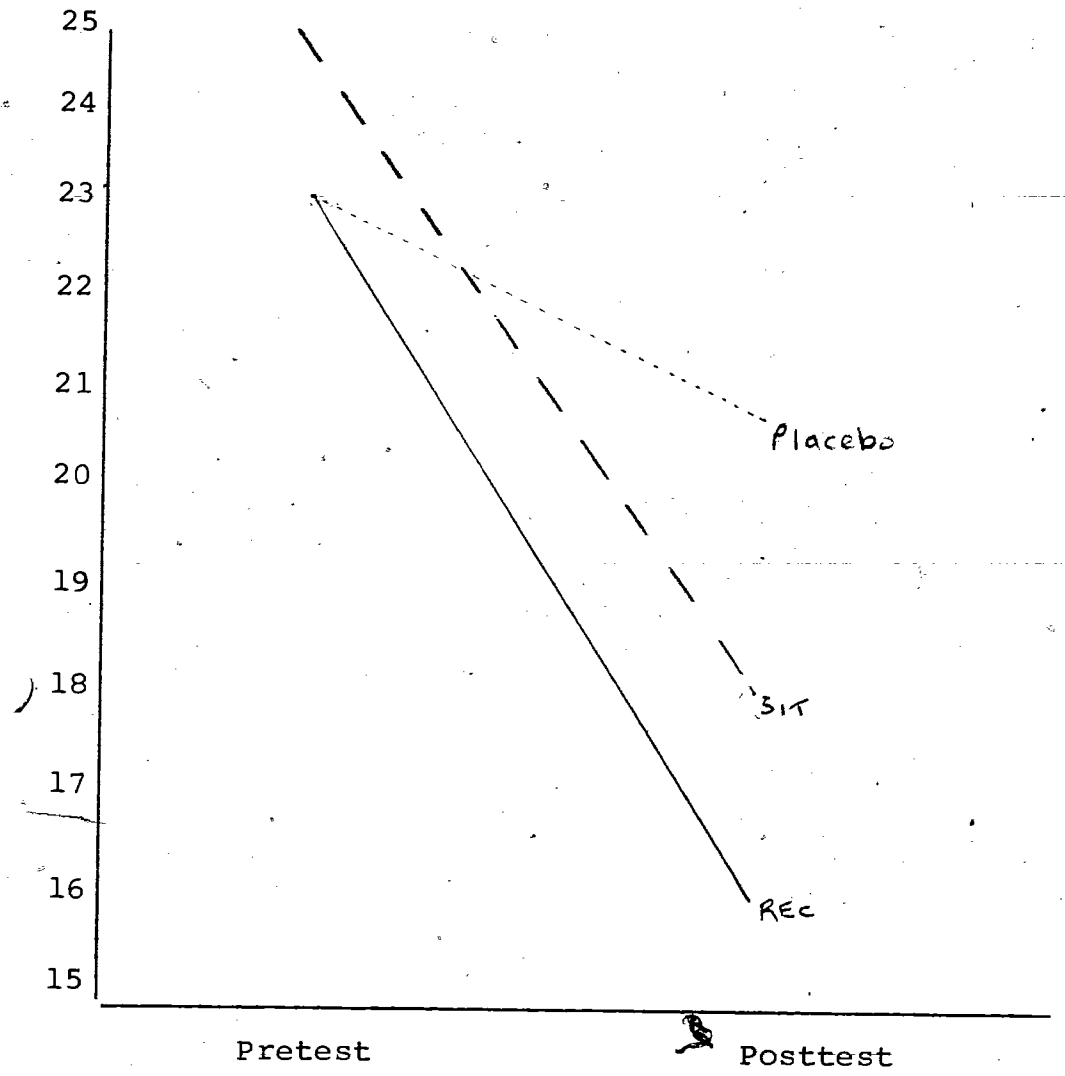


Figure V: A Graph of Pre to Posttest Changes on the TAI-E in Experiment One



CHAPTER IV

EXPERIMENT TWO

The purpose of this chapter is twofold; first the methods used in the preparation and execution of experiment two are discussed. The second purpose is to outline the obtained results. Initially information is provided on the experimental setting and on the participants who took part in the experiment. Both the instruments used for screening purposes and dependent variables are outlined. The design of experiment two is discussed and differences in design, between experiment one and experiment two are given special attention.

The treatments used in experiment two are overviewed and any differences between experiment one and two are highlighted. The results of experiment two are presented, including psychometric properties of the instruments, descriptive statistics, and analyses of variance with appropriate contrasts.

Method

Setting and Participants

This study took place in a junior secondary school (grades seven to 10), with a total enrollment of approximately 550 students. The school was located in a suburban community located 10 miles from a major city. The socioeconomic status of the community was largely middle class. All the students involved in the study were from grade 10 classes.

An initial group of 31 volunteer students was assessed on levels of test anxiety, study habits, and specificity of anxiety. Student volunteers participated in the study on the basis of information about the project provided to them by their regular school counsellor, and on the basis of information contained in letters home to their parents for the purpose of providing consent (see Appendix A). The information given to the students included statements of time commitments and experimental goals. The students were assigned randomly to groups. To insure equivalent sex composition across groups, female students were assigned first.

Instruments

Two sets of instruments, identical to those in experiment one, were used. One set was used in order to provide screening

data. The second set was used to provide data on dependent variables - pretest and posttest.

Screening instruments. In the first experiment, the purpose of the screening instruments was to attempt to ensure students selected for participation in the experiment were experiencing high levels of test anxiety, paired with low to moderate levels of general anxiety, without impairment of appropriate study skills. In this second experiment, there were not enough volunteer participants to warrant screening as in the first experiment. The purpose of screening in this experiment was to enable a comparison between experiment one levels of test anxiety, general anxiety, and study skills, and experiment two. Thus, in administering these screening instruments the question being addressed was, "were the participants in experiment one equivalent to the participants in experiment two in levels of test anxiety, general anxiety and appropriate study skills?" The three instruments employed for this purpose were the Study Habits Checklist (preston & Botel, 1967), the Fear Survey Schedule (Wolpe, 1973), and the Test Anxiety Scale (Sarason, 1978). For description of these three tests see the preceeding chapter.

Dependent variable instruments. The four dependent variable instruments employed in this research were the State-

Trait Anxiety Inventory-State form (Spielberger, 1970), the STAI-Trait form (Spielberger, 1970), the Test Anxiety Inventory (Spielberger, 1980), and the Canadian Test of Basic Skills - Reading and Mathematics subtests (King, 1981). These instruments also have been described previously.

Design and Procedures

This study employed a two factor mixed design with repeated measures on one factor. The first factor was the treatment factor, with the three levels being self-instructional training, rational-emotive counselling, and attentional control. The second factor was a measurement factor with pretest and posttest repeated measures.

An initial group of 31 students volunteered to participate in this study. Before the counselling commenced, the students were administered the screening instruments - i.e., the Fear Survey Schedule, the Test Anxiety Scale, and the Study Habits Checklist. These instruments were administered prior to the counselling sessions in order to determine the students' levels of test anxiety, general anxiety and study skills. As previously stated, the intention here was to compare the students in school one, with those in school two on these factors. Results of these comparisons based on two way analyses of variance (school x group) indicated

that the participants in two schools were equivalent on the Fear Survey Schedule and Study Habits Checklist but that participants in experiment one were significantly more test anxious than those in experiment two ($F_{(2,67)} = 10.67$, $p < .05$). The screening instruments were administered by the same counsellor who was to give the treatment and control sessions. The screening was conducted in one large group six weeks prior to the commencement of the counselling interventions, following the same set of instructions as for experiment one (see Appendix D).

Following the administration of the screening instruments, the participants were assigned randomly to the three counselling groups. This resulted in the following treatment group composition: 10 participants were assigned to the rational emotive counselling group (five males, five females), 11 participants were assigned to the self-instructional training group (five males and six females), and 10 participants were assigned to the placebo group (five males and five females). Actual complete pre-post test results were not achieved on all students for similiar reasons as those described in Experiment One. The final group composition for pre-post testing was as follows; seven in the REC group (three males, four females), seven in SIT (two males,

five females), and six in the placebo (two males, four females).

Prior to commencing the counselling phase of the study, the pretest instruments were administered by the same counsellor who administered the screening tests. This took place two weeks before the interventions were scheduled to begin and was conducted in one large group of 31 participants. The tests were administered using a standardized set of instructions (see Appendix D). The tests administered were STAI-State form, STAI-Trait form, the TAI, CRBS-Reading subtest, and the CTBS-Math subtest.

The counselling sessions were conducted by a graduate student in educational counselling. The student was known to the participants since she was also a full time counsellor at this particular school. This student conducted all eight counselling sessions for each of the three groups involved. The counsellor followed a detailed step by step manual outlining the counselling sessions. Each counselling sessions plan contained a list of objectives, required materials, a guide for counsellor activities and skills, and a listing of student activities. Homework assignment and

worksheets were included in the manuals. The counsellor involved in this experiment had seven years experience in the counselling area.

All groups received eight counselling sessions, each session being 50-minutes in length. The counsellor kept records of both attendance and the number of homework assignments completed.

Following the test anxiety counselling sessions, participants again performed on the STAI-State and Trait, the TAI, and the CTBS-Reading and Math subtests.

Since all three groups met in the same school, students were encouraged not to discuss contents of their sessions with members of other groups. They were asked to consider group discussions as confidential.

The posttest was conducted under the same conditions as the pretest, using the same counsellor and the standardized set of instructions located in Appendix D. This posttesting occurred two weeks after session eight.

Treatments

The content and structure for experiment two counselling sessions were taken from the same counselling manuals as used in experiment one. These manuals were constructed to be parallel across instructional activities and homework. This was achieved by matching and comparing counselling skills and time sequences, during every step of the manual construction. Counsellors in both experiments worked from the same manual. Counsellors in both studies met together before each counselling session to try and ensure that they would be delivering the treatments in a comparable way across experiments. During the course of the experiments the two counsellors also met on a weekly basis to determine what had occurred during the sessions and also to give feedback to the manual designers on any problems that had occurred (see Merrick, 1982; Wallace, 1982).

In studying notes taken by the counsellors and in discussion between them, it appeared that both delivered the self-instructional training and the rational emotive counselling in a similar manner. (For a discussion of these two counselling strategies and the content of the eight sessions, please see Chapter III.)

In studying the material provided by the counsellors concerning the placebo group, differences from the manual were apparent. Since the outline of all the placebo sessions, as intended, is given in Chapter III only the differences between experiment one and experiment two placebo sessions will be examined here.

In session three, the counsellor in experiment two distributed a discussion guide to the students as part of the lesson plan. This was done because the counsellor decided that more material was required for this session. The discussion guide gave two extreme positions on the role of teachers in exacerbating test anxiety and then solicited student opinions about this topic. A further change concerned giving the students a homework assignment at the end of session three. This was done at the request of students themselves. The assignment asked the students to record events that happened in regular class times during the succeeding week that made them feel more or less anxious.

Differences in session four included giving the students time to discuss the results of their homework. Session five paralleled the control group manual as written. In session six, less time was spent by the counsellor in experiment two on study skills than had been allocated for in the manual.

Instead, more time was spent discussing the implications of cheating. In both lessons seven and eight, the counsellor in experiment two followed the manual and paralleled the work of the counsellor in experiment one.

Although these differences existed, counsellors in both experiments were aware that the placebo group counselling was to focus on relationship enhancement and was to be non-directive. Both counsellors used skills such as reflecting content, reflecting feeling, and reflecting meaning in order to facilitate group discussion of issues rather than more action-oriented activities. The focus was on soliciting and reflecting the thoughts and feelings of participants and helping participants to share this information among themselves.

Results

In this section, reliabilities of both screening and experimental instruments used in this study are reported, descriptive statistics (means and standard deviations) for all treatment groups on each experimental variable at both pretest and posttest are summarized. Finally, inferential tests of between group and within group experimental differences are documented, and an overall summary of between and within group findings is presented.

Reliability of Instruments

Screening instruments. Cronbach alphas were calculated as an index of the reliabilities of the three screening instruments - Study Habits Checklist, Fear Survey Schedule and the Test Anxiety Scale. The internal consistency of all three screening instruments was high as reported previously in Chapter IV.

Dependent variables. Overall alphas were calculated on all the experimental variables at both pretest and posttest points. A description of these alphas is located in Chapter IV.

Descriptive Statistics

Table V represents a breakdown of the means and standard deviations of the screening instruments for the three groups involved in experiment two. From an examination of this table, the following pattern emerges. First, in terms of the Study Habits Checklist, there is little difference between the three groups. In fact, the REC and control groups have exactly the same scores, with the SIT group being close behind. On the Test Anxiety Scale, the SIT and placebo groups have the same score, and the REC group is quite similar. On the Fear Survey Schedule, the three group means appear to be in close proximity to each other. In fact, differences on all screening

Table V: Means and Standard Deviations of Treatment Groups on All Screening Instruments in Experiment Two

Measures	Treatment Groups	Mean	S.D.
Study Habits Checklist	REC (n=10)	92.10	24.06
	SIT (n=11)	88.00	15.47
	Placebo (n=10)	92.90	16.84
Test Anxiety Scale	REC	54.90	7.68
	SIT	58.55	5.68
	Placebo	58.80	5.67
Fear Survey Schedule	REC	236.90	68.50
	SIT	227.64	58.45
	Placebo	225.10	60.04

instruments appear to be slight, and indicate that the random assignment procedures employed in this experiment did ensure equivalent groups for each of these three variables.

In order to ensure that the counselling groups did not differ in degree of test anxiety, study habits, and their levels of generalized anxiety, one-way analyses of variance (see Appendix G) were performed on each of the screening variables (Study Habits Checklist, Fear Survey Schedule, and Test Anxiety Scale). No significant differences were found,

thus confirming random assignment procedures. In order to ensure there were no differences at the pretest on any of the dependent variables one-way analyses of variance were performed. Results indicated no significant differences between groups on the STAI-State, Trait, TAI, W, E, and CTBS-Math test. However, on the CTBS-Reading there was a significant difference ($F_{(2,17)} = 3.99$, p .05). An apriori contrast indicated that the placebo group was significantly lower than the two treatment groups ($t_{(17)} = 3.89$, p .05), and that there was no statistically reliable difference between the REC and SIT groups.

Table VI gives descriptive statistics for experiment two. In reviewing Table VI, several features may be noted. Firstly, there are many similarities across groups on most instruments at the pretest; for example, the STAI-State scores are quite similar. When these scores are again viewed at posttest, the slight differences that occurred at pretest have become accentuated, and scores tend to be less similar; for example, the previously mentioned STAI-State scores go from a eight point spread to a 21 point spread between the highest and lowest group means from pretest to posttest.

With respect to pre- to posttest changes, results clearly varied. On the STAI-State, both REC and SIT groups had

Table VI: Means and Standard Deviations of Treatment Groups on All Dependent Variables Both Pretest and Posttest for Experiment Two

Measure	Treatment Group	Pretest		Posttest	
		$\bar{X}$	S.D.	$\bar{X}$	S.D.
STAI-State	REC (n=7)	51.86	6.41	45.43	13.34
	SIT (n=7)	48.43	10.33	34.86	9.89
	Placebo (n=6)	56.67	12.01	55.33	9.41
STAI-Trait	REC	40.57	8.50	36.14	11.87
	SIT	44.57	11.02	39.57	8.34
	Placebo	44.83	7.14	42.00	9.45
TAI-T	REC	52.00	14.76	38.28	12.85
	SIT	59.43	7.74	48.57	10.01
	Placebo	57.00	12.95	59.33	11.07
TAI-W	REC	17.14	7.97	12.43	4.65
	SIT	22.43	3.99	18.86	4.38
	Placebo	23.00	3.74	23.17	5.04
TAI-E	REC	23.29	6.02	16.71	6.68
	SIT	25.00	3.27	19.86	4.09
	Placebo	22.33	7.92	24.33	4.93
CTBS-Read	REC	23.43	5.74	31.43	7.76
	SIT	18.14	4.41	22.86	5.81
	Placebo	13.17	3.92	19.17	5.35
CTBS-Math	REC	21.71	5.41	24.00	6.30
	SIT	17.57	5.38	19.28	5.50
	Placebo	15.33	4.84	16.00	2.19

decreased scores while the control group remained unchanged. On the STAI-Trait, all three groups experienced slightly lower scores from pre- to posttest. On the TAI, both treatment groups had reduced scores, while the control group actually increased its score. On the CTBS-Reading Comprehension test, REC, SIT and control groups all had improved scores. On the CTBS-Math test, the two treatment groups had somewhat improved scores, while the control group remained the same.

On the two TAI subscales, the following results were obtained. Firstly, on the W-scale, both REC and SIT groups had decreased scores. The control group increased its score on this scale. Similarly, on the E-scale, the two treatment groups decreased their scores, while the control group actually showed increased scores.

Between Group Inferential Tests

In order to test between group treatment effects, one-way analyses of variance (see Appendix G) were performed on the posttest variable scores - STAI-State and Trait; TAI-total; TAI-W; TAI-E; and the CTBS-Reading and Math tests. Significant treatment effects were apparent on the following instruments; the STAI-State ($F_{(2,17)} = 5.51$, $p < .05$), the TAI-T ($F_{(2,17)} = 5.52$, $p < .05$), the TAI-W ($F_{2,17)} = 8.75$, $p < .01$), the CTBS-Reading ($F_{2,17)} = 6.3$, $p < .01$), and the CTBS-Math test

($F_{(2,17)}$ = 4.06, $p < .05$). There were not significant treatment effects on the STAI-Trait and the TAI-E variables.

To further analyse the source of the treatment effects on the STAI-State, TAI-T, TAI-W, CTBS-Reading and CTBS-Math test, apriori contrasts were conducted in exactly the same way as in experiment one.

On the STAI-State, these contrasts indicated that the treatment groups (REC and SIT) scored significantly lower than the placebo group ($t_{(17)}$ = 2.8, $p < .05$), and that there was no statistically reliable difference between the REC and SIT groups. On the TAI-T, the apriori contrasts indicated that the treatment groups (REC and SIT) scored significantly lower than the placebo group ($t_{(17)}$ = 2.86, $p < .05$), and that there was not statistically reliable difference between the REC and SIT groups.

On the TAI-W, the contrasts indicated that the treatment groups (REC and SIT) scored significantly lower than the control group ($t_{(17)}$ = 3.3, $p < .05$), and that there was a statistically reliable difference between the REC and SIT groups ($t_{(17)}$ = 2.57, $p < .05$). This difference favoured the REC treatment group. On the CTBS-Reading, the contrasts indicated that the treatment groups (REC and SIT) scored significantly higher than the placebo group, ($t_{(17)}$ = 2.53, $p < .05$) and that there

was a statistically reliable difference between the REC and SIT groups in favour of the REC group ($t_{(17)} = 2.486$, p .05).

On the CTBS-Math test, the apriori contrasts indicated that the treatment groups (REC and SIT) scored significantly higher than the control group ($t_{(17)} = 2.49$, $p < .05$), and that there was no statistically reliable differences between the REC and the SIT groups.

These results appear to demonstrate a consistent trend whereby the treatment groups consistently improved more than the placebo groups. While some of the results did not show actual significance, many did approach significance - e.g., TAI-E ($F_{(17)} = 3.29$, $p < .06$).

Within Group Inferential Tests

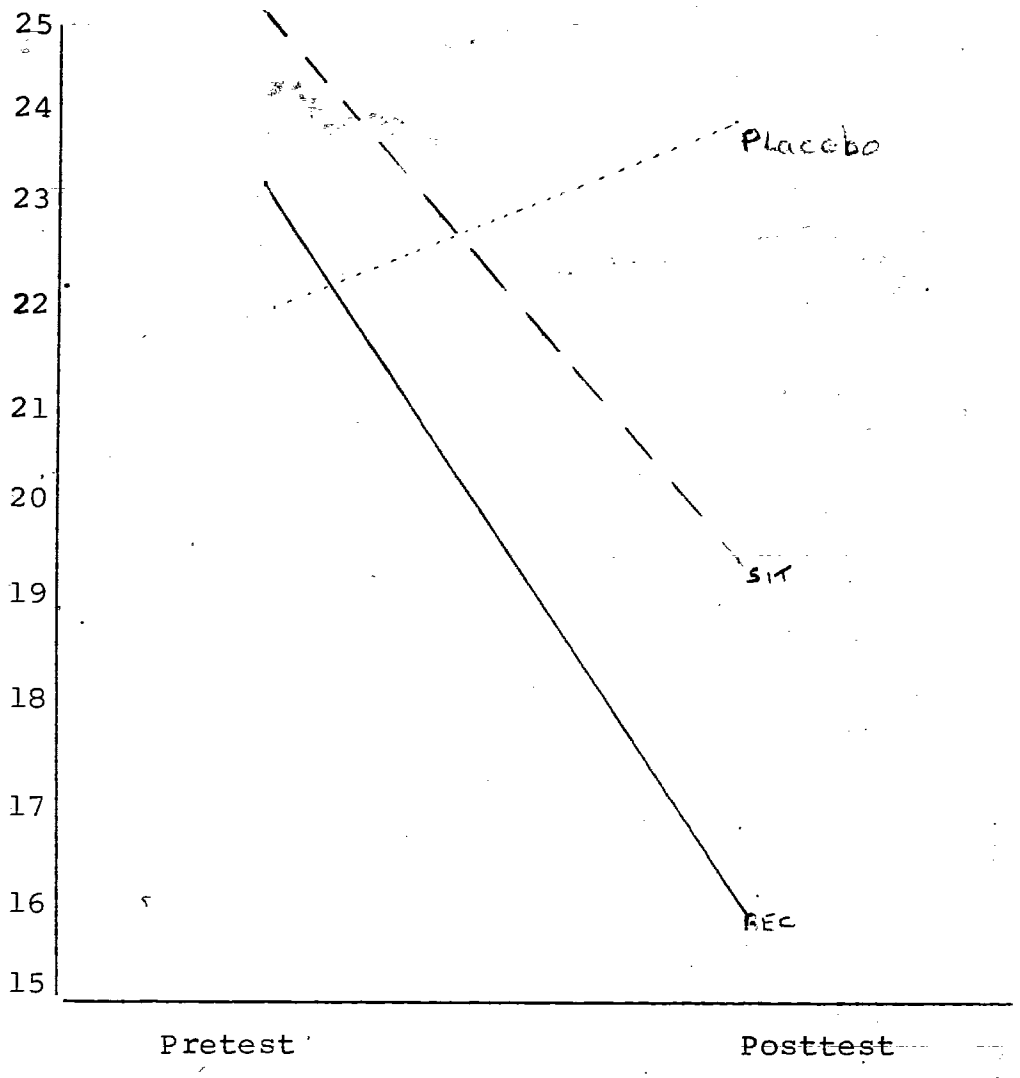
In order to examine experimental changes from pretest to posttest, two way analysis of variance (group x time) were conducted on the dependent variable scores (see Appendix G). Results of these analyses indicated there were significant group by time (pretest - posttest) interaction effects on the TAI-E scale ($F_{(2,17)} = 3.894$, $p < .05$). There were no other significant interaction effects. Main effects for groups were significant on the STAI-State ($F_{(1,17)} = 7.715$, $p < .05$); the TAI-W scale ($F_{(1,17)} = 4.71$, $p < .05$); and the CTBS-Reading Comprehension test ($F_{(1,17)} = 49.96$, $p < .01$).

The CTBS-Math test results approached significance ($F_{(1,17)}$ = 3.555, p .077). These results are consistent with the between group inferential tests presented earlier.

Main effects for time were significant on the following variables; STAI-State ($F_{(1,17)}$ = 7.715, p .05); STAI-Trait ($F_{(1,17)}$ = 5.692, p .05); TAI-T ($F_{(1,17)}$ = 5.275, p .05); TAI-W scale ($F_{(1,17)}$ = 4.71, p .05); TAI-E scale ($F_{(1,17)}$ = 5.808, p .05); CTBS-Reading Comprehension ($F_{(1,17)}$ = 49.961, p .01). Thus, there were improvements from pretest to post-test on the TAI and its subscales, both STAI subscales and the CTBS Reading test over the course of the experiment.

To further clarify within group changes across time on the TAI-E, the Bonferoni t-test was conducted comparing pretest to posttest means for all three treatment groups. The results indicated the following: the REC group was statistically significant ($t_{(17)}$ = 2.9, p .05), the SIT group approached significance, but was not significant ($t_{(17)}$ = 2.27, p .05) and the placebo group fell short of significance, ($t_{(17)}$ = .82, p .05). Figure VI graphically displays these changes.

Figure VI: A Graph of Pre to Postest Changes on the TAI-E in Experiment Two



CHAPTER V

DISCUSSION

This chapter discusses the results of experiment one and experiment two. Both sets of results are compared and their implications for the original set of hypotheses, established in chapter two, are analysed. Finally, the theoretical and practical implications of the findings are discussed.

Summary of Results for Experiment One

In experiment one, the between group inferential tests showed statistically significant results on the TAI-T, TAI-W, and TAI-E. When apriori contrasts were conducted on the TAI-T and on both subscales, results indicated that the treatment placebo(REC and SIT) scored significantly lower than the control group on all three measures. There was no statistically reliable difference between the REC and SIT groups on any of these variables. While the TAI variables were the only ones to reach levels of statistical significance, results on other measures showed similar trends.

In experiment one, within group inferential test results indicated significant interaction effects (treatment x time) on the TAI-T; TAI-W; and TAI-E. Main effects for groups were not statistically significant at the .05 level. Main effects for time were significant on the STAI-State, TAI-T, TAI-W, TAI-E, CTBS-Reading Comprehension and the CTBS-Math test. Bonferoni *t*-tests indicated the following; first there were no statistically significant changes on any of the variables for the placebo group from pre- to posttest. Secondly, the SIT group demonstrated statistically significant within group changes on the TAI-T and TAI-E. The REC group produced within group changes that were significant on the TAI-T, TAI-W and TAI-E. All these results indicated positive treatment effects.

Summary of Results for Experiment Two

In experiment two, the between group inferential test results showed statistical significance at the .05 level on the STAI-State, TAI-T, TAI-W, the CTBS-Reading and Math tests. Apriori contrasts on all these results indicated that the treatment groups improved significantly more than the placebo group. There was no statistically reliable difference between the SIT and REC groups on the STAI-State, TAI-T and the CTBS-Math test. However, on the TAI-W and the CTBS-Reading test there were statistically reliable differences between the REC

and SIT groups, both in favour of the REC group.

Within group inferential test results indicated interaction effects on the TAI-E. Main effects for groups were significant on the STAI-State, the TAI-W and the CTBS-Reading test. Main effects for time were significant on the STAI-State, STAI-Trait, the TAI-T, TAI-W, TWI-E, and the CTBS-Reading test. Bonferoni t-test results on the TAI-E, indicated that only the REC group produced statistically significant pre- to posttest changes on this variable.

Differences in Results Across Experiment One and Experiment Two

In comparing results of experiment one with those of experiment two several important similarities are apparent. In both experiments, the treatment groups (REC and SIT) improved in self-report anxiety measures more than the placebo groups. There are some important differences in results. In experiment one there were no statistically reliable differences in the apriori contrasts between SIT and REC groups. In experiment two on the other hand, there was a statistically reliable difference between REC and SIT groups on two variables-the TAI-W and the CTBS-Reading.

Possible Explanation for Results

In relation to the hypotheses listed in Chapter Two, the following observations may be made. First, there is an abundance of evidence in both experiments to support the hypothesis that "the treatment groups will out perform the

placebo groups on both self-report and performance measures". In relation to the second hypothesis, there is no consistent evidence to suggest that SIT is a more effective counselling mode than REC. In fact, when overall trends are analyzed the results indicate more similarities than differences between the effects produced by the two treatments. In experiment two where differences in effects were apparent, contrary to hypothesis number two, they tended to favour the REC group. An argument might be made here by proponents of REC, that the fact that REC out-performed SIT on the Worry scale of the TAI is crucial. Since this intervention sees the cognitive nature of test anxiety as a fundamental principle of change, then if the worry scale (TAI-W) is a valid measure of cognitive interference the results may indeed be crucial. On the other hand, these results in favour of REC were not apparent in experiment one.

The third hypothesis was that REC would show more significant changes on the STAI-Trait, than the SIT or control groups, since claims have been made that REC treatment effects may have more generality ability than SIT (Ellis, 1975). This hypothesis could not be substantiated on the basis of the results in either experiment one or experiment two.

This study, in comparing two cognitive counselling methods, adds empirical information relevant to current discussions on the treatment of test anxiety. As Wine (1980) has indicated, there has been a prepondenance of research that has demonstrated the primacy of cognitive treatments over other counselling methods for the problem of test anxiety. There have been few studies that have compared various types of cognitive counselling methods with each other. Spielberger (1980) quotes one research study by Fletcher (1979) which compared rational emotive therapy and cognitive behaviour therapy in a study of test anxiety among college students. This research demonstrated that cognitive behaviour therapy was more effective than rational emotive therapy. This finding was not replicated by the experiments reported here.

However, the two cognitive treatments were demonstrably more effective than the control group. This appears to substantiate Wine's general observations on the effectiveness of cognitive methods. Wine (1980) has summarized the crucial mediating role of cognitions in her analysis of test anxiety. Highly test anxious individuals are characterized by a general cognitive set consisting of negative self-preoccupations. They are likely to carry around with them a set of negative self-depracatory cognitions that are readily elicited by the

threat of evaluation. These negative self-preoccupations interfere with memory storage and retrieval as well as being associated with inaction and behavioural constriction. The highly test anxious student has cognitions which are task irrelevant; for example, highly test anxious students interpret physiological arousal as unpleasant and distressing, and become preoccupied with their own reactions. The reason that the cognitive treatments in this experiment were more successful than the control group may be that the counselling strategies focused on ameliorating such negative cognitive processes. Thus, by the end of the eight sessions students' cognitions in the REC and SIT groups likely were more task relevant and focused on current concerns, self-statements were more positive and behaviour was more oriented to problem solving and physical arousal was interpreted as positive energy.

A remaining issue which needs to be addressed is an explanation for the differences that occurred between experiment one and experiment two. One possible explanation for these differences could be that they were due to counsellor effects. However, there were rigorous boundaries and time slots for different instructional strategies and individual focus across parallel sessions of the two treatments. Extensive practice of the treatment procedures prior to the

experimental sessions (by the two counsellors) further insured that the counsellors were actually behaving in accordance with the prescribed treatment procedures. In addition the strategy of having the same counsellor conduct both REC and SIT sessions within a particular school, when coupled with a change in counsellors across the experiments, given the overall similarity of experimental results, argues strongly against counsellor differences as an adequate explanation for the few differences that did exist between the two experiments. However, in order to insure against unintended counsellor effects, additional precautionary measures such as expert rating of videotapes and/or audiotapes of the treatment sessions could have been used. Such an investigation, using videotapes and audiotapes from the two experiments reported here currently is underway (Wuensche, in preparation).

Another possible explanation for the few differences that occurred between experiment one and two, are that the pupils interacted differently with the counselling interventions across the two schools. No attempt was made in this study to isolate and measure student aptitudes that might be responsible for such differences.

Implications for Research and Practice

There is a need for further research in this area of test anxiety and its treatment. Wine (1980) has indicated the need for research on the etiology of test anxiety in children, and for the further refinement of a theoretical model of test anxiety. Further, explicit examination of sex differences in test anxiety research is worthy of further research. Wine's (1980) analysis of present research also calls for more research on the effects of test anxiety on children. There may be some distinct differences between the effects of test anxiety on children and on adults.

Determination of the persistence of effects such as those documented in this study over time also demands further research.

Turning to the more applied question of implications for school counselling practice stemming from the present study, a number of points should be noted. An obvious advantage of group anxiety management programs is that several students can be seen at the same time, thus making it possible for many individuals to benefit under what is often a very high pupil to counsellor ratio in schools. The availability of counsellor manuals such as those employed in this experiment could be of tremendous benefit to school counsellors in the field who

require tested and refined procedures that are easy to understand and implement. Finally, school counsellors need not confine such curricular development for efficient, effective group counselling to test anxiety, counsellors could offer similar programs in reading, study skills training, etc., if deficits in these areas were apparent in pupils in these schools.

In conclusion to summarize the results of this study, in experiment one students in the SIT group demonstrated statistically significant pre- posttest improvements in self reports of test anxiety and on performance measures on the STAI-State, TAI-T, TAI-W, TAI-E, CTBS-Reading and the CTBS-Math test. The REC group demonstrated statistically significant within group changes on the TAI-T, TAI-W and TAI-E and on the CTBS-Math test. The control group demonstrated no significant changes. In experiment two the SIT group showed significant improvements on the STAI-State and the CTBS-Reading test and approached significance on the TAI-T and TAI-E. The REC group within group changes were statistically significant on the TAI-T, TAI-E and the CTBS-Reading test. The control group results from pretest to posttest were statistically significant on the CTBS-Reading test. Overall the treatments of rational-emotive counselling and self-instructional training

have demonstrated more improvements than the control group. In terms of comparing the two treatments, while REC outperformed SIT on two measures in experiment two (TAI-W and the CTBS-Reading test) no further evidence was found to support the primacy of one treatment as better than the others.

APPENDIX A

INFORMATION PROVIDED TO PROSPECTIVE PARTICIPANTS

AND PARENTAL LETTERS OF CONSENT

Instructional Psychology Research Group
Faculty of Education
Simon Fraser University
Burnaby, B.C., Canada
V5A 1S6

(604) 291-3395

November 20, 1981

Dear Parent:

Taking tests is a large part of high school. Most teachers use tests to determine how much their students have learned. Unfortunately, some students do not do as well on tests as they could because they get anxious about taking tests. Frequently they have studied well and know the information, but they become frightened and blank out when they begin to take the test. This is unfortunate, because these students could be getting better grades if they could control their anxiety.

During the 1981-82 school year, we are conducting a project in which we will be asking about 36 tenth grade students in your school to participate. The purpose of this project is to add to our knowledge of effective methods of helping students deal with their anxiety about tests.

We require a group of tenth grade students who experience high anxiety when they must take tests. These students will be assigned to a class in which a trained counsellor will teach students how to cope with test anxiety. These classes will take place one hour a week, during regular school time, over a period of eight weeks during winter, 1982. The teachers, principal and school district have approved the project.

We would like to assess as many tenth grade students as we can so that we may be sure the selected group is composed of students who are anxious about taking tests. The screening procedure will occur in a one hour class during regular school time. The questionnaires that will be administered during this one hour screening session have one purpose -- to identify those students who are test-anxious. We assure you that all information will be held in the strictest confidence; this information will be available only to the university project staff. Also, if at any time between now and the end of your child's participation, he or she wishes to withdraw from the project, he or she should feel free to do so. We would greatly appreciate a phone call to let us know, should this occur.

If your child is asked to participate in the research project, you will be contacted so that you may receive further information and give your consent to his/her participation in the classes.

. . . Over

If I can provide any further information, please contact me. If your child would like to participate and has your permission, please have him or her sign and return the attached form. Also, would you please sign the form. Thank you for your consideration.

Sincerely

Dr. Ron Marx
Associate Professor
291-3628

RM/jf

Instructional Psychology Research Group
Faculty of Education
Simon Fraser University
Burnaby, B.C., Canada
V5A 1S6
(604) 291-3395

Consent Form

The purpose of this form is to obtain your consent for your child's participation in the research project we are conducting during the school year 1981-82. The research project, 'Cognitive-Behavioral Counselling and Test Anxiety', will focus on teaching tenth grade students who experience anxiety when they must take tests, how to cope with that anxiety.

The classes will take place at school during regular school time. They will take one hour a week over an eight week period.

Please indicate your approval for your child's participation in the screening session. Please have your child sign the form also. Thank you.

I hereby grant permission for my child _____ to participate in this project. I am aware that my child may withdraw from participating at any time before or during the project.

Parent's signature _____

Child's signature _____ Date _____

Instructional Psychology Research Group
Faculty of Education
Simon Fraser University
Burnaby, B.C., Canada
V5A 1S6

(604) 291-3395

Consent Form

The purpose of this form is to obtain your approval for your child's participation in the screening session for a research project we are conducting during the school year 1981-82. The research project, 'Cognitive-Behavioral Counselling and Test Anxiety', will focus on teaching tenth grade students who experience test anxiety how to control their anxiety.

The screening session involves administering questionnaires during a one hour class in order to select students who experience test anxiety. This session will take place during regular school time. Your child's anonymity is assured. You will be contacted following the screening if your child's participation in the research project is requested.

Please sign below if you approve of your child's participation in the screening session. Also, please have your child sign if he or she would like to participate. It is very important that this form be returned to school within three days after you receive it. Thank you.

I hereby grant permission for my child _____ (name) to participate in the screening session for this project. I am aware that my child may withdraw from participating at any time before or during the project.

Parent's signature _____

Date _____

Child's signature _____

Date _____

Instructional Psychology Research Group
Faculty of Education
Simon Fraser University
Burnaby, B.C., Canada
V5A 1S6

(604) 291-3395

Dear Parents,

During the 1981-82 school year, we are conducting a research project, 'Cognitive-Behavioral Counselling and Test Anxiety', in which we are asking 36 tenth grade students from your school to participate. The purpose of this research is to add to our knowledge of effective methods of helping students deal with their anxiety about tests.

You previously gave your consent for you child's participation in the screening session for this research project. The results of that screening indicate that your child is one of a number of students who could benefit from instruction in ways of dealing with test anxiety. We believe that these students will gain from their classes on test anxiety and will enjoy an increased awareness of various aspects of test situations.

The class sessions will take place with a trained counsellor for one hour per week, during regular school time, over an eight-week period during winter, 1982. The teachers, principal, and school district have approved the project.

Your child's identity will not be revealed in any way. All information will be held in the strictest confidence. Also, if at any time between now and the end of your child's participation, he or she wishes to withdraw from the project, he or she should feel free to do so. Should this occur, we would greatly appreciate a phone call to let us know. If you would like to obtain copies of the research report at the completion of the project, please contact me. You can register any complaint about the project with me or with Dr. George Ivany, Dean, Faculty of Education.

. 2

At this time we are asking your permission for your child's participation in the one hour assessment session. If I can be of assistance in describing the procedure further, please contact me. If you would like to obtain copies of the research report at the completion of the project, please contact me. You can register any complaint about the project with me or with Dr. George Ivany, Dean, Faculty of Education. If your child would like to participate and has your permission, please sign and return the attached form. Thank you for your consideration.

Sincerely,

Dr. Ron Marx
Associate Professor
291-3628

RM/cmm

APPENDIX B

THE FEAR SURVEY SCHEDULE

TEMPLE UNIVERSITY
OF THE COMMONWEALTH SYSTEM OF HIGHER EDUCATION

SCHOOL OF MEDICINE

DEPARTMENT OF PSYCHIATRY
BEHAVIOR THERAPY SECTION - c/o Eastern Pennsylvania Psychiatric Institute, Henry Avenue, Philadelphia, Pa. 19129 - Tel. 215-438-9548

Director
Joseph Wolpe, M.D.

Associate Director
Paul Latimer, M.D., Ph.D.

March 22, 1982

Ms. Chris Haynes
Research Assistant
Instructional Psychology Research Group
Faculty of Education
Simon Fraser University
Burnaby, B.C., Canada
V5A 1S6

Dear Ms. Haynes:

Thank you for your letter which has only now come to my attention. I can see no objection to your using a modification of the Fear Survey Schedule for your study.

With best wishes,

Yours sincerely,

Joseph Wolpe, M.D.
Professor of Psychiatry and
Director, Behavior Therapy Unit

JW:bjs

FEAR SURVEY 134

The items in this questionnaire refer to things and experiences that may cause fear and unpleasant feelings. Read each item and decide how much you are disturbed by it.

For example, if swimming causes you no fear you would write (1) not at all. If you would feel a little fear write in a (2). If you feel more afraid mark a higher number (3) a fair amount, or (4) much, or (5) very much, depending on how you feel about the item. Answer all items and do not spend too much time on one statement.

1 = not at all

2 = a little

3 = a fair amount

4 = much

5 = very much

1 = not at all
2 = a little
3 = a fair amount
4 = much
5 = very much

135

1. Noise of Vacuum Cleaners ☐ 11
2. Open wounds ☐
3. Being alone ☐
4. Loud voices ☐
5. Speaking in public ☐ 15
6. Crossing streets ☐
7. People who seem insane ☐
8. Being in a strange place ☐
9. Falling ☐
10. Automobiles ☐ 20
11. Being teased ☐
12. Dentists ☐
13. Thunder ☐
14. Sirens ☐
15. Failure ☐ 25
16. Entering a room when other people are already seated ☐
17. High places on land ☐
18. Looking down from high buildings ☐ 28
19. Worms ☐
20. Imaginary creatures ☐ 30
21. Receiving injections ☐
22. Strangers ☐
23. Bats ☐
24. Journey by train ☐
25. Feeling angry ☐ 35
26. People in authority ☐
27. Flying insects ☐
28. Seeing other people injected ☐
29. Sudden noises ☐
30. Journeys by car ☐ 40
31. Dull weather ☐
32. Crowds ☐
33. Cats ☐
34. One person bullying another ☐ 44

1 = not at all
2 = a little
3 = a fair amount
4 = much
5 = very much

136

35. Tough looking people ☐ 45
36. Birds ☐
37. Sight of deep water ☐
38. Being watched working ☐
39. Dead animals ☐
40. Weapons ☐ 50
41. Dirt ☐
42. Journeys by bus ☐
43. Crawling insects ☐
44. Seeing a fight ☐
45. Ugly people ☐ 55
46. Fire ☐
47. Sick people ☐
48. Being criticized ☐
49. Strange shapes ☐
50. Being in an elevator ☐ 60
51. Witnessing surgical operations ☐
52. Angry people ☐
53. Mice or rats ☐ 63
54. Human blood ☐
55. Animal blood ☐ 65
56. Parting from friends ☐
57. Enclosed places ☐
58. Prospects of a surgical operation ☐
59. Feeling rejected by others ☐
60. Journeys by airplane ☐ 70
61. Medical odors ☐
62. Feeling disapproved of ☐
63. Harmless snakes ☐
64. Cemeteries ☐
65. Being ignored ☐ 75
66. Darkness ☐
67. Premature heartbeats (missing a beat) ☐
68. Lightning ☐
69. Doctors ☐ 79

3 80

1 = not at all
2 = a little
3 = a fair amount
4 = much
5 = very much

137

70. Crippled or deformed people ☐ 10
71. Fainting ☐
72. Dogs ☐
73. Making mistakes ☐
74. Looking foolish ☐
75. Harmless spiders ☐ 15
76. Being responsible for decisions ☐
77. Becoming nauseous ☐
78. Sight of knives ☐
79. Taking written tests ☐
80. Large open spaces ☐ 20
81. Germs ☐
82. Taking medicine ☐
83. Being dressed unsuitably (wearing wrong clothes for the occasion) ☐
84. Ministers or priests ☐
85. Hurting the feelings of others ☐ 25
86. Undertakers ☐
87. Police ☐
88. Fish ☐
89. Leaving home ☐
90. Physical examinations ☐ 30
91. Volunteering ideas in class ☐
92. Marriage ☐
93. Insecticides ☐
94. Vomiting ☐
95. Hospitals ☐ 35
96. Answering the teacher's questions ☐
97. Losing control of yourself ☐
98. Responsibility (being in charge) ☐
99. Fast cars ☐ 39

4
80

APPENDIX C

THE TEST ANXIETY SCALE

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Psychology NI-25

October 13, 1981

Christopher R. Haynes
Research Assistant
Instructional Psychology
Research Group
Simon Fraser University
Burnaby, British Columbia
Canada V5A 1S6

Dear Mr. Haynes,

Your revision of the Test Anxiety Scale for use with high school students looks like a first-rate job. You have my permission to use both the original Test Anxiety Scale and your revision of it.

I very much appreciated the kind words contained in your letter. Good luck to you in your own research. Needless to say, I'd appreciate hearing about your work as it develops and as you complete it.

Best regards,

Sincerely,

Irwin G. Sarason
Professor

IGS:jbs

SCHOOL _____ NAME _____

140

T.A.S.

INSTRUCTIONS

This is the Test-Anxiety Scale. For each of the 37 items listed you have to decide if the statement is true and applies to you or if it is false and does not apply to you. If you think the statement is true for you write a 1 in the box immediately beside it. If it is false mark a 2 in the box beside it.

1 = False

2 = True

For example, a question could be:

Sample: Sometimes the night before a big test I find it difficult to sleep. ☐

If this were true of you, you would put a 1 in the box. If you don't have trouble sleeping the night before a big test, the statement would be false for you, so you would put a 2 in the box.

1 = False

2 = True

141

Test Anxiety Scale

1. While taking an important exam I find myself thinking of how much smarter the other students are than I am. [ ] 11

2. If I were to take an I.Q. test, I would feel confident and relaxed beforehand. [ ]

3. If I knew I was going to take an I.Q. test, I would worry a great deal before taking it. [ ]

4. While taking an important exam I sweat a great deal. [ ]

5. During class exams I find I can't keep my mind on the exam. [ ] 15

6. I get to feel very panicky when I have to take a surprise exam. [ ]

7. During tests I find myself thinking about what would happen if I fail. [ ]

8. After important tests, I am frequently so uptight that my stomach gets upset. [ ]

9. I freeze up on things like I.Q. tests and final exams. [ ]

10. Getting a good grade on one test doesn't seem to increase my confidence on the second. [ ] 20

11. I sometimes feel my heart beating very fast during important tests. [ ]

12. After taking a test I always feel I could have done better than I actually did. [ ]

13. I usually get depressed after taking a test. [ ]

1 = False

2 = True

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14. I have an uneasy upset feeling before taking a final exam. ☐

15. When taking a test, how I feel does not interfere with how well I do on a test. ☐ 25

16. During an exam I frequently get so nervous that I forget facts I really know. ☐

17. I worry so much about taking tests that I usually don't do well on them. ☐

18. The harder I work at taking a test or studying for one, the more confused I get. ☐

19. As soon as a test is over, I try to stop worrying about it, but just can't. ☐

20. During exams I sometimes wonder if I'll ever graduate. ☐ 30

21. I would rather write essays than take exams for my mark in a class. ☐

22. I wish exams did not bother me so much. ☐

23. I think I could do much better on tests if I could take them alone and was not pressured by a time limit. ☐

24. Thinking about the mark I may get in a class interferes with my studying and how well I actually do. ☐

25. If exams could be done away with, I think I would actually learn more. ☐ 35

1 = False

2 = True

26. On exams I take the attitude "if I don't know it now, there's no point in worrying about it." [ ]

27. I really don't see why some people get so upset about tests. [ ]

28. Thoughts of doing poorly interfere with how well I do. [ ]

29. I don't study for final exams more than I do for the rest of my class work. [ ]

30. Even when I'm well prepared for a test, I feel very anxious about it. [ ]

40

31. I don't enjoy eating before an important test. [ ]

32. Before an important exam, I find my hands or arms shaking. [ ]

33. I seldom feel the need for "cramming" before an exam. [ ]

34. The school ought to recognize that some students are more nervous than others about tests and that this affects how well they do. [ ]

35. Exam periods shouldn't be made so tense. [ ]

45

36. I start feeling very uneasy just before getting a test back. [ ]

37. I hate classes where the teacher gives surprise "quizzes." [ ]

47

[2]

80

APPENDIX D

INSTRUCTIONS TO COUNSELLORS FOR THE ADMINISTRATION OF SCREENING TESTS AND PRE- POSTTESTS

Instructional Psychology Research Group
Faculty of Education
Simon Fraser University

Cognitive-Behavioral Counselling and Test Anxiety

SCREENING TEST INSTRUCTIONS

Materials Required:

Adequate supply of Study Habit Checklists.

TAS/FSS booklets.

Face sheets.

Sharpened pencils.

1 stapler.

1 red pen.

Directions:

1. Assemble the students together. They will need a pencil. Have the tests in two stacks at the front of the room. One stack will be the Study Habits Checklist, the other will be the combined Fear Survey/ Test Anxiety Booklet.

2. Begin with the following introductory statement:

> "Taking tests is a large part of high school. Most teachers use tests to determine how much their students have learned. Unfortunately, some students do not do as well on tests as they could because they get anxious about taking tests. Frequently they have studied well and know the information, but they become frightened and blank out when they begin to take the test. This is unfortunate, because these students could be getting better grades if they could control their anxiety. The project you are now involved in may help you to deal with any anxiety you have about tests. This particular screening session will assist us in determining who would most benefit from participation in this project."

3. Explain briefly to the students the structure of the testing session: i.e. "There are three sets of tests here and I will explain what

you have to do before each test."

4. Continue by handing out the Study Habits Checklist and saying, "This is the Study Habits Checklist; please do not write on this yet."

5. When every student has a copy you will say ...

> "You will notice on the front a place for your name, age, school, sex, and date of birth. Where it asks for your date of birth I would like you to write only the year and month of your birth. Any questions? O.K., please write that information on the front and then put your pencils down."

Emphasize <u>for each test</u> that all questions should be answered and that they should write clearly.

6. When everyone is finished, read the instructions on the front of the S.H.C. to the group. The example is self-explanatory. Ask them to begin. The test should take no more than ten minutes.

7. When they have completed this test give one copy of the FSS/TAS booklet to each student. Tell them to complete their names and schools on the front.

8. Read the instructions to them as before and have them complete the first test in the booklet, which is the TAS. Explain clearly that they are not to turn to the second test until told to do so. No one should begin the second test until you have explained the instructions.

9. Read the instructions for the final test (FSS), emphasizing the fact that they need not sit and think about each answer for a long time.

10. When all tests have been completed ask them to place the S.H.C. on top of the FSS/TAS booklet and then collect all tests.

11. Take your supply of face sheets and staple together a face sheet and the two test booklets completed by each student. The order should be: face sheet, Study Habits Checklist, TAS/FSS booklet. At this point you may wish to alphabetize all tests.

12. On the front of the face sheet write in the appropriate school code, I.D. number, and sex code.

13. In the spaces left blank for age, use the year to month conversion table and write in the appropriate number of months.

14. In order to convert the Study Habits Checklist responses into a form that can be keypunched, you will need to go through each student's test and do the following:

    (a) For each section the student has marked an X in, determine which number on a scale of 1 to 5 that this would correspond to. The column on the left will be one and on the extreme right, five.

    (b) Once the number has been determined write it in the margin with a red pen. If there is no response, enter a "9".

    (c) Do this for all responses and on all Study Habits Checklist booklets.

15. Look through each test and check if an answer is provided for each item. If an item is blank insert a "9". Briefly check each sheet for legibility.

16. Return all tests to I.P.R.G., S.F.U.

Instructional Psychology Research Group

Faculty of Education

Simon Fraser University

Cognitive-Behavioral Counselling and Test Anxiety

YEAR TO MONTH CONVERSION TABLES

AGE IN MONTHS TAKEN FROM THE 1ST DEC. 1981

Date of Birth	Months
1964 - 12	204
1965 - 1	203
1965 - 2	202
1965 - 3	201
1965 - 4	200
1965 - 5	199
1965 - 6	198
1965 - 7	197
1965 - 8	196
1965 - 9	195
1965 - 10	194
1965 - 11	193
1965 - 12	192
1966 - 1	191
1966 - 2	190
1966 - 3	189
1966 - 4	188
1966 - 5	187
1966 - 6	186
1966 - 7	185
1966 - 8	184
1966 - 9	183
1966 - 10	182
1966 - 11	181
1966 - 12	180
1967 - 1	179
1967 - 2	178
1967 - 3	177
1967 - 4	176
1967 - 5	175
1967 - 6	174
1967 - 7	173
1967 - 8	172
1967 - 9	171
1967 - 10	170
1967 - 11	169
1967 - 12	168

Instructional Psychology Research Group
Faculty of Education
Simon Fraser University
Cognitive-Behavioural Counselling and Test Anxiety

TEST INSTRUCTIONS

Materials required:

Adequate supply of Self-Evaluation Questionnaires (STAl X-1 and X-2).
Canadian Tests of Basic Skills Booklets (Form 5).
CTBS - answer sheets.
Test Anxiety Inventory.
Face sheets.
Sharpened pencils.
1 stapler (loaded).
1 time piece.

Directions:

1. Assemble the students together. They will need a pencil. Have the tests in four (4) stacks at the front of the room. One stack will be the STA 1 (X1 and X2). One stack will be the CTBS booklets with the answer sheets inside the front cover. The third stack will be the TA 1. Finally, you will have a stack of cover sheets.

2. Begin with the following introductory statement.

   "As you are aware you are all involved in a project designed to help you deal with the anxiety you feel about taking tests. Part of this project is designed to let us know just how effective we have been in helping you overcome anxiety. This session will help us to evaluate how well we do."

3. Explain briefly the structure of the testing session.

   "There are four tests to be completed altogether. This will require you to listen to my instructions and to follow them carefully."

4. Continue by handing out STA 1. Hand this out with the side marked X2 face up. When you have done this say the following.

   "This is a Self-Evaluation Questionnaire. Please put your name on the top. Make sure that the side you are writing on says, 'STA 1 Form X2'."

   Continue by reading through the directions with the class. Emphasize the four categories that range from "Almost never" to "Almost Always." Ask the students to begin and to put down their pencils when the questionnaire is complete. Time allocated to this test is 10 minutes.

5. As the class finishes, hand out the CTBS (Form 5) booklets complete with answer sheets inside the front cover.

   "This is the Canadian Test of Basic Skills. It looks like a very long test but we will be using only part of it today."

   Every student will now have a booklet.

"Take out the answer sheet marked Reading Comprehension and write your name and school in the top right hand corner."

6. When this is complete have the students turn to Page 3 of the CTBS. Read the section marked "Directions" and explain the sample item to the students. Continue by saying,

   "In this booklet you will see it says you have 40 minutes. We will do this particular test for only 15 minutes. You will begin at question 1 and you will answer as many questions as possible. You may begin now. I will tell you when 15 minutes has elapsed."

7. Begin timing and in 15 minutes say,

   "You have now had 15 minutes, please put your pencils down. Now take out the second answer sheet marked 'Mathematics'. Put your name and school on the top and then turn to Page 21."

8. On Page 21 of the CBTS once again read the directions and then inform the students as before that they will have only 12 minutes to complete this test. Have the students start and begin timing them.

9. Continue in 15 minutes by saying,

   "You have now had 15 minutes. Please stop writing and put your pencils down. Please close your booklet and put it at one side of your desk. Keep the answer sheets out. Now we will go back to the first test I gave you. Please turn to the back of the Self-Evaluation Questionnaire; it will say on the top STA-1 Form X-1. Put your name on the top as before."

10. Continue by reading the directions at the top of the STA 1 Form X-1. Make a special note of pointing out the difference in the scale description, i.e. it ranges from "Not at all" to "Very much so."

    "You may now begin this test. It should not take very long. Please work quickly and quietly." Remember that you just finished taking a test.

    Time allocated is 10 minutes.

11. While the students are doing this test the teacher will collect the CTBS booklets making sure students have not left answer sheets inside the covers.

12. After ten minutes, or before if every one has finished . . .

    "Thank you for being so cooperative in helping me complete this task. We have nearly finished all the tests."

13. Take the stack of Test Anxiety Inventories and distribute one to each student. Say the following,

    "This is a Test Attitude Inventory. Please write just your name on the top."

14. Now read the directions to the group as printed at the top. The 20 questions in this test should take no more than 10 minutes, and most students will probably be finished before that.

PLEASE NOTE: INSTRUCTION 15 APPLIES TO MARY HILL AND PORT MOODY SCHOOLS ONLY (CODE 1 AND CODE 3). IF YOU ARE NOT INVOLVED WITH ONE OF THESE SCHOOLS PROCEED WITH INSTRUCTION 16.

15. When all students have finished distribute the Self-Efficacy Probes. Ask the students to write their names on the top as indicated. Read through the instructions with the students and allow them five minutes to complete the probes.

16. Every student should now have on their desk the following answer sheets.

- a copy of the STA 1 (X-1 and X-2)
- a Reading Comprehension answer sheet for the CTBS
- a Math answer sheet for the CTBS
- a TA 1 sheet
- the Efficacy Probes (Code 1 and 3 schools only)

17. The Counsellor will now take the face sheets and the stapler and will collect the tests of each student, taking the tests and stapling them to the face sheet. Ask the students the following:

"I will now collect all four answer sheets (all five for Code 1 and 3 schools). Please make sure you have your name on each test. Thank you for helping me to get through this task smoothly. Please don't leave until I tell you to do so."

18. When all answer sheets and tests are collected and stapled to a face sheet the students may be dismissed.

19. The counsellor will now take the tests and complete the information on the face sheet.

20. In completing the face sheet you will need the student list and corresponding I.D. numbers. The following information will also assist you:

School	School Code Number
Mary Hill Secondary	1
W.J. Mouat (Clearbrook)	2
Port Moody	3
West Vancouver	4

Treatment Group	Treatment Group Code
Rational Emotive Counselling	1
Self Instructional Training	2
Control	3

20a Old and 6 to face sheet for test period

1= pretest
2= posttest
3= delay

21. Return all tests to IPRG, SFU.

22. Thank you for following the directions carefully.

APPENDIX E

THE CONTROL GROUP SESSIONS

OBJECTIVES

(1.01) STUDENTS WILL BE ABLE TO STATE THAT THE ACTIVITIES IN THE GROUP WILL HELP THEM UNDERSTAND THEIR TEST ANXIETY.

(1.02) EACH STUDENT WILL BE ABLE TO STATE THE NAMES OF ALL THE OTHER STUDENTS IN THE GROUP AS WELL AS ONE OR TWO CHARACTERISTICS OF EACH STUDENT.

(1.03) EACH STUDENT WILL COMPLETE THE GET-ACQUAINTED SHEET BY CIRCULATING AMONG PEERS AND ASKING FOR INFORMATION.

(1.04) EACH STUDENT WILL DISCUSS IN THE WHOLE GROUP ONE ITEM FROM THE GET-ACQUAINTED SHEET.

MATERIALS

NAME TAGS.

GET-ACQUAINTED WORKSHEETS.

PENCILS.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(1.01) COUNSELLOR INTRODUCES SELF AND DISCUSSES THE PURPOSE OF THE GROUP. GIVES AN OVERVIEW OF THE ACTIVITIES FOR THE EIGHT SESSIONS. (10 min) My name is _____ and I am one of the counsellors in the school. We are going to be meeting for eight weeks in this group. These meetings will give all of you the chance to learn about test anxiety and to discuss with the members of this group how you feel and think about taking tests. As you may know, there are two other groups of tenth graders in the school that are learning about test anxiety. They will be learning slightly different information and will be engaged in different activities. We believe that all three groups will learn a lot about test anxiety and, when we are finished, all of you will feel more relaxed about tests.	OVERVIEW PROBING	

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
This outline gives a brief overview of the activities I have planned for the eight weeks. (Show outline on overhead and briefly discuss the activities of each week.)		
Do you have any questions about what we are going to do?		ASK QUESTIONS.
(1.02) COUNSELLOR INTRODUCES THE FIRST GET ACQUAINTED EXERCISE. THE GROUP MEMBERS SHOULD SIT IN A CIRCLE SO THAT EVERY PERSON CAN SEE AND SPEAK WITHOUT BEING OBSTRUCTED. DESIGNATE SOMEONE TO START THE GAME BY SAYING HIS NAME AND TELLING THE GROUP ABOUT SOMETHING THAT HE LIKES TO DO (IN JUST A FEW WORDS). MOVING IN A CLOCKWISE DIRECTION, THE NEXT PERSON REPEATS THE PRECEDING NAME(S) AND WHAT THOSE PEOPLE LIKE TO DO. THE SPEAKER THEN GIVES HIS OR HER NAME AND WHAT HE OR SHE LIKES TO DO. THIS PROCESS CONTINUES UNTIL THE ORIGINAL STARTER REPEATS ALL THE NAMES AND "LIKES."	CALLING FOR DEMONSTRATION	EACH STUDENT STATES HIS/HER NAME AND SAYS ONE THING ABOUT HIM/HERSELF. (EG. MY NAME IS ED AND I LIKE TO PLAY BASEBALL.) EACH STUDENT REPEATS THE PREVIOUS SPEAKERS' NAMES AND WHAT HE OR SHE LIKES TO DO, ADDING HIS/HER OWN COMMENT AT THE END (EG. HIS NAME IS ED AND HE LIKES TO PLAY BASEBALL. I'M JOAN AND I LIKE TO SING.)

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
IF SOMEONE CANNOT REMEMBER A PERSON'S NAME OR WHAT A PERSON LIKES, HE OR SHE SHOULD BE HELPED BY THE REST OF THE GROUP. THIS IS NOT A CONTEST, BUT A CHANCE TO BEGIN TO DEVELOP HELPING RELATIONSHIPS. (15 min)		
FOLLOWING THIS EXERCISE, PASS OUT NAME TAGS. THIS IS NOT NECESSARY IF EVERYONE KNOWS EVERYONE ELSE'S NAME.		EACH STUDENT WRITES NAME ON HIS/HER TAG AND PUTS TAG ON.
I am going to give you name tags so that you can remember each person's name as you do the next exercise. Later, when you ask each other questions, make sure that you say the person's name before you ask him/her a question. That will help you learn everyone's name.		
(1.03) COUNSELLOR INTRODUCES THE SECOND GET ACQUAINTED EXERCISE. PASS OUT THE WORKSHEETS, INSTRUCTING THE PARTICIPANTS THAT THEIR TASK IS TO MOVE AROUND THE ROOM, MEETING AND TALKING	STATING TRANSITION GIVING IN-STRUCTIONS	STUDENTS WALK ABOUT, ASKING OTHERS QUESTIONS FROM THE WORKSHEET AND WRITING NAMES ON THE WORKSHEET.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
WITH EACH OTHER, UNTIL THEY HAVE COMPLETED THE WORKSHEET. THE WORKSHEET IS COMPLETE WHEN THEY HAVE PLACED A NAME BESIDE EACH DESCRIPTION. (10 min)		
(1.04) COUNSELLOR LEADS GROUP DISCUSSION ABOUT WORKSHEET ITEMS. EACH PARTICIPANT SHOULD MAKE AT LEAST ONE CONTRIBUTION. (10 min)	STATING TRANSITION PROBING REDIRECTING REFLECTING SUMMARIZING	LISTENS TO OTHER PARTICIPANTS. TALKS ABOUT HIS/HER OWN THOUGHTS AND FEELINGS AS APPROPRIATE.
I would like you all to get back into a circle. I want to discuss what you all found out about each other. (Select an item off the worksheet and randomly ask a participant whose name he/she entered for that item.) Who did you have for item number __? (Then ask the person whose name was cited to talk about the event. Use open ended probes to elicit comments and redirect to other participants.) Tell us about _____. What are some of your thoughts (feelings) when that happens? Who else has had that experience? What was it like for you? How was it different?		

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(Counsellor summarizes at the end.) (1.05) COUNSELLOR GIVES *SUMMARY* OF ACTIVITIES FOR NEXT SEVEN WEEKS. (5 min) For the next seven weeks we will meet once a week and talk about test anxiety and some of the factors that cause us to be anxious when we take tests or participate in other activities that require us to be evaluated. This week we got to know each other and to find out something about each other. We also talked a bit about how we react in situations like tests. This was really important because getting to know and trust everyone in the group will help all of you to help each other. Next week we will talk more specifically about test anxiety and how each of you feels and thinks about taking tests. During this discussion you will all		

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
learn about some of the common problems of test anxiety and you will have a chance to explore your feelings about those problems. This is the beginning of the process to become less anxious. In the following weeks we will talk about how different teachers and testing practices affect test anxious students and how different subjects make you more anxious than other subjects. Next we will discuss the relationship between test anxiety and how you study for exams and your work habits. As you probably know, some people like to study more than others do, and there are a wide variety of work habits, some of which are related to test anxiety. The sixth session will be about cheating and some of the other ethical problems with testing. Some people try to be less anxious about tests by cheating. We will talk about this and		

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
discuss some of the dilemmas that are created by cheating. In the seventh session we will discuss how test anxiety is similar to anxiety that results from other evaluative situations. For example, some of you might compete in athletic events, such as skating, hockey, or soccer. There are many similarities between test anxiety and the feeling you get in these other situations. Finally, in the last session we will talk about fears that people have that do not have anything to do with tests or other evaluations. This is an important topic because anxiety and fears are quite similar.		

WORKSHEET #1

FIND A PERSON WHO: NAME:

1. Got an 'A' in English last year. _____
2. Went to three or more elementary schools. _____
3. Thinks that teachers shouldn't give tests. _____
4. Wants to go to university. _____
5. Thinks that school is boring. _____
6. Does homework on the weekend. _____
7. Wants to work at the airport. _____
8. Gets a stomach ache when thinking about tests. _____
9. Thinks all people should be required to stay in school until they graduate from high school. _____
10. Enjoys doing math. _____
11. Gets into arguments with parents about grades. _____
12. Thinks school attendance should be voluntary after grade six. _____
13. Likes to do things in front of a crowd. _____
14. Has failed a test in the last month. _____

OBJECTIVES	MATERIALS
(2.02) ALL STUDENTS WILL OFFER INFORMATION REGARDING THEIR REASONS FOR INVOLVEMENT IN THE COUNSELLING SESSIONS.	
(2.03) ALL STUDENTS WILL STATE (A) THE LENGTH OF TIME THEY HAVE EXPERIENCED TEST ANXIETY AND (B) THE DEGREE TO WHICH IT INTERFERES WITH FUNCTIONING.	OVERHEAD PROJECTOR TRANSPARENCY
(2.04) ALL STUDENTS WILL WRITE ANSWERS TO QUESTIONS ON WORKSHEET.	WORKSHEETS PENCILS
(2.05) IN GROUPS OF TWO OR THREE, STUDENTS WILL DISCUSS THEIR ANSWERS TO THE QUESTIONS ON THE WORKSHEET.	
(2.06) IN THE WHOLE GROUP, ONE STUDENT FROM EACH GROUP WILL SUMMARIZE THE RESPONSES OF THE GROUP MEMBERS TO THE WORKSHEET.	OVERHEAD PROJECTOR OVERHEAD PEN
(2.07) STUDENTS WILL DISCUSS IN THE WHOLE GROUP HYPOTHETICAL OUTCOMES IF THEIR ANXIETY (A) DISAPPEARED OVERNIGHT OR (B) NEVER GOT BETTER.	

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
(1.01) COUNSELLOR REVIEWS PREVIOUS WEEK'S SESSION AND OVERVIEWS ACTIVITIES AND OBJECTIVES FOR TODAY'S SESSION (3 MINS.)	SUMMARIZING OVERVIEW STATING OBJECTIVES	
Last week we got to know each other's names and a little bit about everyone. Recall that we had two activities to accomplish this: First, we went around the group and everyone had to say his/her name and something about him/herself and everyone had to repeat the name and the information about everyone else. Then you circulated around the group and tried to find names of people who had experienced different things. We then talked about those experiences in the group.		
The activities we engaged in last week were not directly related to test anxiety, and you may have been wondering why we were doing them. The reason, as I stated last week, was		

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
because it is important for us to become a strong working group so that you can trust each other. The best way for that to happen is to get to know each other and that was the point of last week's activities. Today, we are going to talk more specifically about test anxiety. First, we will discuss what anxiety is and what kind of experiences you have had with test anxiety. Second, you will answer some questions on a worksheet about your specific reactions to test anxiety. Then you will discuss your answers in small groups. Fourth, we will summarize these discussions in the whole group and finish with a discussion of future possibilities about your experience with test anxiety.		

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
(2.02) ALL STUDENTS WILL OFFER INFORMATION REGARDING THEIR REASONS FOR INVOLVEMENT IN THE COUNSELLING SESSIONS. (5 MINS.) In order for us to discuss more specifically your experiences with test anxiety, I would like to find out why all of you decided to come to these sessions. So starting with you (indicate student) please tell me your reasons for joining this group.	GROUP ALERTING PROBING PROMPTING RE-DIRECTING STATING TRANSITION	ALL STUDENTS BRIEFLY STATE REASON FOR JOINING GROUP

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
(2.03) COUNSELLOR WILL INTRODUCE THE TOPIC OF TEST ANXIETY AND FACILITATE A DISCUSSION AS TO A) THE MEANING OF THE TERM TEST ANXIETY, B) HOW LONG THE STUDENT HAS EXPERIENCED TEST ANXIETY AND, C) THE DEGREE TO WHICH TEST ANXIETY INTERFERES WITH FUNCTIONING. (11 MINS.)	GROUP ALERTING, PROBING, PROMPTING, RE-DIRECTING, ATTENDING, REFLECT AFFECT REFLECT MEANING PROMPTING OWNERSHIP SUMMARIZING GIVING EXAMPLES MARKERS OF IMPORTANCE	ALL STUDENTS WILL GIVE TWO STATEMENTS REGARDING A) THE LENGTH OF TIME THEY HAVE EXPERIENCED TEST ANXIETY AND B) THE DEGREE TO WHICH IT INTERFERES WITH FUNCTIONING.
Now, let's talk a little about test anxiety. Does anyone want to take a stab at defining anxiety? (Use transparency SIT 1.03a.) Counsellor directs and incorporates responses toward an accurate definition. i.e. "anxiety: 1. feeling of mingled dread and apprehension about the future without specific cause for the fear." (Chaplin, 1968). With that definition in mind what sorts of things are you feeling and thinking when you are		

ACTIVITY

COUNSELLOR	NOTES	STUDENT
preparing for or writing tests? (Counsellor will elicit a few responses reflecting meaning and affect.) How long has each one of you experienced test anxiety? Take a minute to think back to when you first began feeling anxious during tests. (Counsellor will ask all students to share their experiences.) Now, I would like to know to what degree does this test anxiety interfere with your daily life? (All students will share their experiences.)		
As I listen to you relating your experiences, it occurs to me how similarly you are all feeling and thinking. You have mentioned tenseness and anxiety in test situations and other evaluative experiences. This appears to occur in many ways, such as stomach aches, stiff necks, pounding hearts, sweating palms, and so on. (Counsellor should use specific examples given by		

ACTIVITIES

COUNSELLOR	SET UP	STUDENT
the group.) I also hear you saying that you find it difficult to focus on the task at hand. It seems, you could not keep your attention on what you had to do but rather found your mind wandering. (Again, the counsellor should use the examples given by the group.)		
(2.04) ALL STUDENTS WILL WRITE ANSWERS TO QUESTIONS ON WORKSHEET. (5 MINS.)	GIVING INSTRUCTIONS	ALL STUDENTS ANSWER QUESTIONS ON WORKSHEET "CONTROL - 2.04".
(Counsellor hands out worksheet "Control - 2.04." Make sure that each student has a pencil or pen.) Write answers to each of the three questions on this worksheet. Try to recall a specific experience with test anxiety to help you answer the questions.		

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
(2.05) IN GROUPS OF TWO OR THREE, STUDENTS WILL DISCUSS THEIR ANSWERS TO THE QUESTIONS ON THE WORKSHEET. (6 MINS.) Now that you have all finished answering the three questions, I want you to pair up with another student. (There will be one group of three if there is an odd number of students in the class.) Take turns talking about your answers to the questions. Discuss what other feelings, thoughts and experiences you have when you take tests or are otherwise being evaluated. Ask your partner to explain more completely if you do not understand what he/she means. (Counsellor moves from group to group keeping the students on task and facilitating discussion where appropriate.)	STATING TRANSITION GIVING INSTRUCTIONS	DISCUSS ANSWERS TO QUESTIONS ON WORKSHEET

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
(2.06) IN THE WHOLE GROUP, ONE STUDENT FROM EACH GROUP WILL SUMMARIZE THE RESPONSES OF THE GROUP MEMBERS TO THE WORKSHEET. (9 MINS.) Let's all get back together now. I want to discuss with all of you now what you have been talking about in your small groups. I want one person from each group to summarize what was said in your group. The other person(s) can add whatever he/she would like after the summary. Let's start with this group. (Counsellor selects one of the groups and asks one of the students to volunteer to summarize the discussion. Using the overhead, write down some of the more common and salient responses. Go around the group in this fashion until all of the groups have reported, redirecting, probing and prompting when necessary.)	STATING TRANSITION PROBING PROMPTING RE-DIRECTING SUMMARIZING	ABOUT HALF OF THE STUDENTS SUMMARIZE DISCUSSIONS IN SMALL GROUPS. ALL STUDENTS RESPOND TO PROBES, PROMPTS AND RE-DIRECTIONS WHEN APPROPRIATE.

ACTIVITY II

COUNSELLOR	SKILL	STUDENT
(2.07) STUDENTS WILL DISCUSS IN THE WHOLE GROUP HYPOTHETICAL OUT COMES IF THEIR ANXIETY (A) DISAPPEARED OVERNIGHT OR (B) NEVER GOT BETTER (9 MINS.) Now that you have all had an opportunity to discuss your answers to the questions on the worksheet, I want to ask two more questions to help you think about your experience with test anxiety. First, what would it be like if you woke up tomorrow morning and you were no longer anxious about tests? What would be different? What would remain the same? (Probe, prompt and re-direct until everyone has had a chance to speak.) My second question is: What would it be like if you never got rid of test anxiety? What would happen? How would you feel? (Again, probe, prompt and re-direct until everyone has had a chance to contribute.)	PROBING PROMPTING RE-DIRECTING GROUP ALERTING DESCRIPTIVE PRAISE STATING TRANSITION REFLECT MEANING REFLECT FEELING	ALL STUDENTS ANSWER QUESTIONS.

ACTIVITY

COUNSELLOR	SKILL	STUDENT
(2.08) COUNSELLOR SUMMARIZES TODAY'S SESSION. (2 MINS.) Today we discussed why you joined this group and what anxiety and, more specifically, test anxiety is. You then talked about your personal experiences with test anxiety and how long you have felt anxious about taking tests. You then answered the questions on the worksheet and discussed your answers with another student. We then got back together and summarized the discussion, and finished with a discussion of what would happen if your test anxiety mysteriously disappeared overnight, or if it never went away. (Throughout the summary, use examples from the students' discussion where appropriate.)	SUMMARIZING	LISTEN

WORKSHEET

1. What does it feel like to experience test anxiety?

2. What kinds of emotions do you experience when you are test anxious?

3. What does test anxiety do to your daily life?

OBJECTIVES

(3.01) EACH STUDENT WILL WRITE DOWN THE FIRST TRIAD TASK.

(3.02) EACH STUDENT WILL JOIN A TRIAD AND DISCUSS THEIR FIRST TASK.

(3.03) THE GROUP WILL MEET BACK AS A WHOLE AND A PERSON FROM EACH GROUP WILL REPORT BACK FROM THE TRIADS.

(3.04) THE SECOND TRIAD TASK WILL BE WRITTEN DOWN AND NEW TRIADS WILL BE FORMED.

(3.05) A FINAL REPORTING BACK AND SUMMARY WILL TAKE PLACE.

MATERIALS

PEN AND PAPER.

OVERHEAD PROJECTOR.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(3.01) COUNSELLOR WILL GIVE AN OVERVIEW OF TODAY'S ACTIVITIES AND WILL EXPLAIN THE PURPOSE OF THESE ACTIVITIES.	GIVING OVERVIEW STATING OBJECTIVES	
I would like to begin by discussing what we will be doing today. I think we are all aware that test-anxiety is not a constant thing, somethings increase it and somethings decrease it. Well today I would like us to discuss the types of things that teachers do and don't do that contribute to these feelings of anxiety. At the end of this lesson we will all have had the opportunity to share our thoughts and feelings on how teachers can make situations easier or more difficult for us to cope with.		
(3.02) COUNSELLOR WILL DICTATE THE STUDENTS' FIRST TASK AND DIVIDE THEM UP INTO TRIADS. THE FIRST TASK WILL BE FOR THE TRIAD TO MAKE A LIST OF 4 WAYS A TEACHER CAN MAKE YOU FEEL TEST-	GIVING INSTRUCTIONS GIVING EXAMPLES	STUDENTS WILL DIVIDE INTO GROUPS AND ENGAGE IN DISCUSSIONS.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
ANXIOUS. COUNSELLOR WILL GIVE AN EXAMPLE. I now intend to divide you up into groups of three. Your instructions are that each group must come up with 4 ways some teachers can make you feel more text-anxious. Be as specific and descriptive as you can. Before starting, designate one person as some one to report back to the group.		
(3.03) COUNSELLOR WILL HAVE STUDENTS COME BACK TO MAIN GROUP AND HAVE THEM REPORT BACK THEIR FINDINGS. FOCUS WILL BE ON HOW STUDENTS <u>FEEL</u> WHEN TEACHER ALKS ABOUT TESTS. I will go to each group now and check out what has been said. I will write them on the board and we can see if there is any overlap. Do groups tend to pick out the same things?	CALLING FOR INFORMATION REFLECT CONTENT REFLECT FEELING REFLECT MEANING PROBING	EACH GROUP LEADER WILL REPORT BACK ON THEIR FINDINGS.
(3.04) COUNSELLOR WILL EXPLAIN THE NEXT TASK. WHAT ARE 4 THINGS TEACHERS	GIVING INFORMATION	STUDENTS WILL DIVIDE INTO GROUPS AND DIS-

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
COULD DO TO MAKE YOU FEEL LESS TEST-ANXIOUS? HOW WOULD EACH THING MAKE STUDENTS FEEL?	TASK ASSIGN-MENT	CUSS THE ASSIGNMENT.
You have given me ideas on what increases your anxiety. Now I would like you to imagine you are the teacher. What four things could you do to help your students decrease their anxiety? We will do this by going back to the groups of three except a different person will now be the record keeper.		
(3.05) COUNSELLOR RE-GROUPS STUDENTS, LEADS DISCUSSION ON RESULTS OF THEIR TASK.	CALLING FOR INFORMA-TION	STUDENTS GIVE RESULTS OF THEIR EFFORTS -- GIVE EXAMPLES.
I will handle thisin the same way as last time. Let's see what we have and what suggestions have been generated	GIVING DES-CRIPTIVE PRAISE	
	REFLECTING CONTENT/ MEANING/ FEELING	
(3.06) COUNSELLOR GIVES A SERIES OF SUMMARY STATEMENTS ON THE LESSONS.	SUMMARIZES FEELING	

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
Today's discussions have been very interesting; you have worked hard in your groups. It seems that some teachers make you feel anxious by doing these types of things: _____, _____, _____, _____. However, you had some good ideas on how teachers could do things differently. I was especially impressed with these suggestions: _____, _____, _____, _____. Next week I will be talking about	SUMMARIZES CONTENT	

OBJECTIVES

(4.01) EACH STUDENT WILL COMPLETE THE SUBJECT AND TEST TYPE ANXIETY QUESTIONNAIRE.

(4.02) EACH STUDENT WILL CONTRIBUTE THE RESULTS OF HIS/HER QUESTIONNAIRE TO THE GROUP FOR ANALYSIS OF TRENDS.

(4.03) EACH STUDENT WILL CONTRIBUTE TO THE QUESTIONS: WHICH SUBJECT IS MOST ANXIETY PROVOKING? WHAT TYPE OF TEST IS MOST ANXIETY PROVOKING?

(4.04) STUDENTS WILL CONTRIBUTE POSSIBLE REASONS AS TO WHY SOME SUBJECTS AND SOME TESTS PROVOKE MORE ANXIETY.

MATERIALS

PEN AND PAPER.

SATT QUESTIONNAIRE.

OVERHEAD PROJECTOR.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(4.01) COUNSELLOR WILL LEAD A DISCUSSION ON TODAY'S TOPICS AND OVERVIEW WHAT WILL OCCUR. Last week we talked about how the things different teachers did make us feel more or less test-anxious. Today we will talk about how some subjects generate in us more anxiety than others. For example . . . We are going to look at this area by completing a questionnaire and comparing the results. By the end of this lesson you might have a clearer idea of which subjects and what type of tests make you most anxious.	STATE OBJECTIVES GIVING OVERVIEWS GIVING EXAMPLES	
(4.02) COUNSELLOR WILL HANDOUT SATTQY AND WILL ALLOW THE STUDENTS 10 MINS. FOR COMPLETION. I am going to give you the questionnaire now. As you can see, you are asked to rate which subjects and which tests give you the most anxiety. You might wish to read over the entire quesion-	GIVING INFORMATION	STUDENT WILL COMPLETE QUESTIONNAIRE AS DIRECTED.

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
naire before starting. Take your time and think about each question very carefully. You might want to use pencil because as you go through people find they change their minds on the ratings.		
(4.03) COUNSELLOR WILL USE OVERHEAD TO OBTAIN RESULTS FROM SATT QY AND PUT THEM ONTO THE LARGE CHART	GIVING INFORMATION CALLING FOR INFORMATION	STUDENTS WILL VOLUNTEER THEIR RESULTS.
Now that everyone is finished you will see on the overhead a frame on which we can enter the results of the questionnaire. Now as I go through each section call out the results from your SATT QY.	GIVING DIRECTIONS	
As I am doing this you can begin to see whether there are any patterns taking shape or whether you all have anxiety over different things.		

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(4.04) COUNSELLOR WILL ENCOURAGE STUDENTS TO DISCUSS RESULTS. WHICH IS MOST ANXIETY-PROVOKING SUBJECT AND TEST-TYPE? I have all the results on the board now: What patterns do you see -- can anybody venture some reasons for this. I would like to hear what you think. To conclude this particular discussion, you have really made the following conclusions from the results of this questionnaire ...	INFORMATION GIVING CONTENT REFLECTION MEANING REFLECTION SUMMARY	STUDENT WILL DISCUSS WHICH SUBJECTS PROVOKE THE MOST ANXIETY.
(4.05) COUNSELLOR WILL EXPLORE IN MORE DEPTH THE FEELING ASSOCIATED WITH PARTICULAR FORMS OF ANXIETY. I would like to talk at this point a little more about what kind of feelings we get before a test. Often we just say 'nervous' or 'scared' -- but now I want you to talk about exactly what the feeling is for you. Let me give	SET INDUCTION REFLECT FEELING CALLING FOR EXAMPLES	STUDENTS WILL DISCUSS THEIR EMOTIONAL RESPONSES TO TESTS AT SCHOOL.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
you an example of how I feel when I'm nervous and see how I describe what is happening to me ...		
(4.06) COUNSELLOR WILL SUMMARIZE TODAYS LESSON.	DESCRIPTIVE PRAISE SUMMARY STATEMENTS	
Today we have covered two major areas; we have completed the questionnaire and I think I have learned the following -- -- -- . Next we spoke in a lot more depth about our feelings when we are nervous, anxious, or frightened. I was impressed with the number of examples you gave, and the way you participated in the discussion.		

OBJECTIVES

(5.01) EACH STUDENT WILL REPORT HOW THEY HAVE STUDIED FOR EXAMS. WHAT DO THEY DO?

(5.02) STUDENTS WILL DISCUSS EFFORTS AT STUDYING DURING WEEK AT HOME AND AT SCHOOL, IN GROUPS OF THREE, AND WILL REPORT THEM TO GROUP. GROUP WILL DISCUSS AND GIVE FEEDBACK.

(5.03) STUDENTS WILL PRESENT IDEAS RAISED DURING GROUP DISCUSSION.

(5.04) STUDENTS WILL DISCUSS WAYS TO TAKE MORE EFFECTIVE NOTES IN CLASS.

(5.05) STUDENTS WILL RECORD STUDY HABITS AS A HOMEWORK ASSIGNMENT.

MATERIALS

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
(5.01) EACH STUDENT WILL REPORT HOW THEY HAVE STUDIED FOR EXAMS. WHAT DO THEY KNOW? (]7 min) I would like to begin today's section on study habits by asking each one of you to describe how you have studied for homework in the past. Please tell us how you have felt at these times.	STATE OBJECTIVES CALLING FOR DEMONSTRATION PROBING USING DESCRIPTIVE FEEDBACK TO CLARIFY	STUDENTS WILL GIVE BRIEF DESCRIPTIVE EVALUATION OF HOW THEY STUDY FOR EXAMS.
(5.02) STUDENTS WILL DISCUSS EFFORTS AT STUDYING DURING WEEK AT HOME AND AT SCHOOL, IN GROUPS OF THREE, AND WILL REPORT THEM TO GROUP. GROUP WILL DISCUSS AND GIVE FEEDBACK. (10 min) Today's objective is to discuss ways of studying both at home and in class. We will break up into groups of three that will allow you to talk about the sorts of things you do for studying at home and studying at school. You might, for example, talk about how much time you spend at studying or when during	STRUCTURING AND STATING OBJECTIVES	

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(5.03) STUDENTS WILL PRESENT IDEAS RAISED DURING GROUP DISCUSSION.(15 min) We will now get back together and discuss your ideas. Let's generate as many ideas as we can. I will help you by recording them on the board. We will spend the next 15 minutes doing this.	GIVING INSTRUCTIONS GIVING DESCRIPTIVE PRAISE PROBING GIVING EXAMPLES TO CLARIFY	STUDENTS WILL GENERATE IDEAS OF WAYS OF ORGANIZING STUDY TIME. EACH TRIAD'S COLLECTION WILL BE PRESENTED TO THE CLASS AND DISCUSSED.
(5.04) STUDENTS WILL DISCUSS WAYS TO TAKE MORE EFFECTIVE NOTES IN CLASS. (20 min) For the last part of this class we will discuss ways of better note taking. Since a lot of the information you need to know for exams comes from material covered in class, this skill can be very useful. Again we can break up into triads to allow you to generate ideas for note taking skills. Please choose a different group than the first one. After ten minutes are up we will get together and spend the	TRANSITIONS GIVING OVERVIEW STATING GOALS GIVING FEEDBACK SUGGESTING ALTERNATIVES GIVING DESCRIPTIVE PRAISE	STUDENTS WILL PARTICIPATE IN TRIAD's GENERATION OF IDEAS. EACH TRIAD'S IDEAS WILL BE DISCUSSED AND EVALUATED BY THE WHOLE CLASS.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
last ten minutes discussing your ideas.		
(5.05) STUDENTS WILL RECORD STUDY HABITS AS A HOMEWORK ASSIGNMENT. (min)		
For homework, I would like you to record your efforts at studying. Please use the forms I will give you and each time you have finished some studying write down what you did, how you did it, and the time it occupied.		

OBJECTIVES

(5.01) EACH STUDENT WILL REPORT HOW THEY HAVE STUDIED FOR EXAMS. WHAT DO THEY DO?

(5.02) STUDENTS WILL RECORD EFFORTS AT STUDYING DURING WEEK AND WILL REPORT THEM TO GROUP. GROUP WILL DISCUSS AND GIVE FEEDBACK.

(5.03) STUDENTS WILL DISCUSS HOW THEY MIGHT ORGANIZE THEIR STUDYING TIME AT HOME.

(5.04) STUDENTS WILL DISCUSS WAYS TO TAKE MORE EFFECTIVE NOTES IN CLASS.

MATERIALS

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(5.01) I would like to begin today's section on study habits by asking each one of you to describe how you have studied for homework in the past. Please tell us how you have felt at these times. (17 min)	STATE OBJECTIVES CALLING FOR DEMONSTRATION. PROBING USING DESCRIPTIVE FEEDBACK TO CLARIFY	STUDENTS WILL GIVE BRIEF DESCRIPTIVE EVALUATION OF HOW THEY STUDY FOR EXAMS.
(5.02) Today's objective is to discuss ways of studying both at home and in class. We will break up into groups that will allow you to work on each section and then get back together for a whole class discussion of the ideas each group came up with. After this class, for homework I would like you to pay attention to your study habits and record them. At the beginning of next class we will take up the topic for a short time. (3 min)	STRUCTURING AND STATING OBJECTIVES	

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(5.03) Now I would like you to break up into triads for ten minutes and in each group discuss ways you might organize your study time at home. Then we will get back together and spend another 15 minutes discussing your ideas. (25 min)	GIVING INSTRUCTIONS GIVING DESCRIPTIVE PRAISE PROBING GIVING EXAMPLES TO CLARIFY	STUDENTS WILL GENERATE IDEAS OF WAYS OF ORGANIZING STUDY TIME. EACH TRIAD'S COLLECTION WILL BE PRESENTED TO THE CLASS AND DISCUSSED.
(5.04) For the last part of this class we will discuss ways of better note taking. Since a lot of the information you need to know for exams comes from material covered in class, this skill can be very useful. Again we can break up into triads to allow you to generate ideas for note taking skills. Please choose a different group than the first one. After ten minutes are up we will get together and spend the last ten minutes discussing your ideas.	TRANSITIONS GIVING OVERVIEW STATING GOALS GIVING FEEDBACK SUGGESTING ALTERNATIVES GIVING DESCRIPTIVE PRAISE	STUDENTS WILL PARTICIPATE IN TRIAD'S GENERATION OF IDEAS. EACH TRIAD'S IDEAS WILL BE DISCUSSED AND EVALUATED BY THE WHOLE CLASS.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8:00							
8:30							
9:00							
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10:00							
10:30							

OBJECTIVES

(6.01) STUDENTS WILL SUMMARIZE AND PRESENT RESULTS OF WEEK'S RECORDING OF STUDY EFFORTS.

(6.02) STUDENTS WILL LEARN THE GENERAL CONCEPT OF MORAL DILEMMAS.

(6.03) STUDENTS WILL DISCUSS SOME DILEMMAS THEY FIND THEMSELVES IN.

(6.04) STUDENTS WILL LEARN THAT ONE SOMETIMES FINDS CHEATING A SOURCE OF DILEMMA IN AN EXAM.

(6.05) STUDENTS WILL DISCUSS ALTERNATIVES AND CHOICES AROUND CHEATING DURING AN EXAM.

MATERIALS

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(6.01) STUDENTS WILL SUMMARIZE AND PRESENT RESULTS OF WEEK'S RECORDING OF STUDY EFFORTS. (8 min) Today we will begin by each one of you presenting the results of recording your effort at studying. I am particularly interested in what kind of thoughts went through your mind as you tried to study. After everyone has presented we can come to some kind of agreement as to which skills seemed to work the best.	CALLING FOR DEMONSTRATION GIVING INFORMATIONAL FEEDBACK AND DESCRIPTIVE PRAISE REFLECTING MEANING SUMMARIZING	EACH STUDENT PRESENTS RESULTS OF STUDYING EFFORT. GROUP DISCUSSION WILL EVALUATE AND SELECT THOSE ACTIVITIES THAT ARE MOST PRODUCTIVE.
(6.02) STUDENTS WILL LEARN THE GENERAL CONCEPT OF MORAL DILEMMAS. COUNSELLOR BEGINS GENERAL DISCUSSION OF TOPIC. (7 min) The rest of today's class will be spent on the idea that sometimes we find ourselves in situations where it seems that no matter which choice we make we lose something. Usually these are choices that involve the question of the rightness or wrongness of the	OVERVIEW SET INDUCTION	

ACTIVITIES

COUNSELLOR	SKILL	STUDENT
decision. Something about either choice or choices makes it an undesirable choice yet you need to make one. An example of a dilemma is the story about the man whose wife was dying of cancer. (Give the rest of this Kohlbergian dilemma, or present another dilemma chosen from the list at the end of the lesson.) I would like you to spend the next few minutes discussing what you understand dilemmas to be. What do you think dilemmas are?		
(6.03) STUDENTS WILL DISCUSS SOME DILEMMAS THEY FIND THEMSELVES IN. (10 min) Perhaps we could spend some time discussing what kind of dilemmas you sometimes find yourself in. (Counsellor will prompt with specific examples if students are unable to respond.)	PROBING DESCRIPTIVE FEEDBACK TRANSITION REDIRECTING PROBING PROMPTING	STUDENTS TO GIVE FEEDBACK OF THEIR IDEA OF WHAT A DILEMMA IS.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(6.04) STUDENTS WILL LEARN THAT ONE SOMETIMES FINDS CHEATING A SOURCE OF DILEMMA IN AN EXAM. (15 min) In particular, a student can face the dilemma of being in an exam when not knowing an answer. The temptation is to get it by looking at someone else's work. This has bad effects both ways and is a real dilemma to us. Could you tell me some of the bad results and good results that make up each side of that issue? Some questions to consider are the following: Have you ever tried hard yourself and noticed someone else cheating off your work? Early experiences at cheating? Two examples are: 1) Two friends do a project together; one does most of the work. They end up with very similar results. The teacher wants to determine who did the work and who cheated but the one who did the work doesn't want to betray the other.	TRANSITION CALLING FOR DEMONSTRATION PROBING DESCRIPTIVE FEEDBACK REFLECTING CONTENT & AFFECT	STUDENTS WILL GIVE IDEAS ABOUT BOTH SIDES OF THE ISSUE.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
2) A group do a project. One person doesn't participate but gets honored along with the rest of the group. The group doesn't want to betray him.		
(6.05) STUDENTS WILL DISCUSS ALTERNATIVES AND CHOICES AROUND CHEATING DURING AN EXAM. (15 min)	CALLING FOR DEMONSTRATION	STUDENTS WILL PARTICIPATE IN CLASS DISCUSSION TO GENERATE ALTERNATIVES TO CHEATING.
I would like to close today's session by asking you to generate ideas about what other ways or situations might result in cheating being handled. (Then summarize ideas and give alternatives they may have missed.)	PROBING REFLECTING CONTENT & MEANING SUMMARIZING	

List of Moral Dilemma Stories (6.02)

Story One:

In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her; it was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make but the druggist was charging ten times what the drug cost him to make. He paid $200 for the radium and charged $2000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1000 which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and broke into the man's store to steal the drug for his wife.

Story Two:

Joe is a 14-year-old boy who wanted to go to camp very much. His father promised him he could go if he saved up the money for it himself. So Joe worked hard at his paper route and saved up the $40 it cost to go to camp and a little more besides. But just before camp was going to start, his father changed his mind. Some of his friends decided to go on a special fishing trip, and Joe's father was short of the money it would cost. So he told Joe to give him the money he had saved from the paper route. Joe didn't want to give up going to camp, so he thought of refusing to give his father the money.

Story Three:

Several years later, the grown up brothers had gotten into serious trouble. They were secretly leaving town in a hurry and needed money. Alex the older one, broke into a store and stole $500. Joe the younger one went to a retired old man who was known to help people in town. Joe told the man that he was very sick and needed $500 to pay for the operation. Really he wasn't sick at all, and he had no intention of paying the man back. Although the man didn't know Joe very well, he loaned him the money. So Joe and Alex skipped town, each with $500.

Story Four:

In Korea, a company of Marines was way outnumbered and was retreating before the enemy. The company had crossed a bridge over a river, but the enemy were mostly still on the other side. If someone went back to the bridge and blew it up as the enemy were coming over it, it would weaken the enemy. With the head start the rest of the men in the company would have, they could

List of Moral Dilemmas, contd.

probably then escape. But the man who stayed back to blow up the bridge would probably not be able to escape alive; there would be about a 4 to 1 chance he would be killed. The captain of the company has to decide who should go back and do the job. The captain himself is the man who knows best how to lead the retreat. He asks for volunteers, but no one will volunteer. If he goes himself, the men will probably not get back safely and he is the only person who knows how to lead the retreat.

OBJECTIVES

(6.01) STUDENTS WILL SUMMARIZE AND PRESENT RESULTS OF WEEKS RECORDING OF STUDY EFFORTS.

(6.02) INTRODUCE THE CONCEPT OF MORAL DILEMMAS IN GENERAL.

(6.03) STUDENTS WILL DISCUSS SOME DILEMMAS THEY FIND THEMSELVES IN.

(6.04) INTRODUCE IDEA THAT ONE SOMETIMES FINDS CHEATING A SOURCE OF DILEMMA IN AN EXAM.

(6.05) STUDENTS WILL DISCUSS ALTERNATIVES AND CHOICES AROUND CHEATING DURING AN EXAM.

MATERIALS

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(6.01) COUNSELLOR LEADS A GROUP DISCUSSION ON HOMEWORK TASK. (8 min) Today we will begin by each one of you presenting the results of recording your effort at studying. I am particularly interested in what kind of thoughts went through your mind as you tried to study. After everyone has presented we can come to some kind of agreement as to which skills seemed to work the best.	CALLING FOR DEMONSTRATION GIVING INFORMATIONAL FEEDBACK AND DESCRIPTIVE PRAISE SUMMARIZING	EACH STUDENT PRESENTS RESULTS OF STUDYING EFFORT. GROUP DISCUSSION WILL EVALUATE AND SELECT THOSE ACTIVITIES THAT ARE MOST PRODUCTIVE.
(6.02) (7 min) The rest of todays class will be spent on the idea that sometimes we find ourselves in situations where it seems that no matter which choice we make we lose something. Usually these are choices that involve the question of the rightness or wrongness of the decision. Something about either choice or choices makes it an undesirable choice yet you need to make one. An	OVERVIEW SET INDUCTION	

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
example of a dilemma is the story about the man whose wife was dying of cancer. (Give the rest of this Kohlbergian dilemma.) I would like you to spend the next few minutes discussing what you understand dilemmas to be.		
(6.03) Perhaps we could spend some time discussing what kind of dilemmas you sometimes find yourself in.	PROBING DESCRIPTIVE FEEDBACK TRANSITION REDIRECTING PROBING PROMPTING	STUDENTS TO GIVE FEEDBACK OF THEIR IDEA OF WHAT A DILEMMA IS.
(6.04) (15 min) In particular a student can face the dilemma of being in an exam when not knowing an answer the temptation is to get it by looking at someone else's work. This has bad effects both ways and is a real dilemma for us. Could you tell me some of the bad results and good results that make up each	TRANSITION CALLING FOR DEMONSTRATION PROBING DESCRIPTIVE FEEDBACK REFLECTING CONTENT &	STUDENTS WILL GIVE IDEAS ABOUT BOTH SIDES OF THE ISSUE.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
side of that issue.	AFFECT	
(6.05) (15 min)	CALLING FOR DEMONSTRATION	STUDENTS WILL PARTICIPATE IN CLASS DISCUSSION TO GENERATE ALTERNATIVES TO CHEATING.
I would like to close today's session by asking you to generate ideas about what other ways or situations that might result in cheating being handled. (Then summarize ideas and give alternatives they may have missed.)	PROBING REFLECTING CONTENT & MEANING SUMMARIZING	

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(7.01) COUNSELLOR LEADS DISCUSSION OF COMMON FEARS. (15 min) I would like to spend today's session talking about fears that many of us have in common so that we have greater understanding of our fears. Before we begin our discussion, let's complete a questionnaire on this topic. (COUNSELLOR WILL THEN ISSUE FEAR SURVEY SCHEDULE, READ DIRECTIONS AND HAVE GROUP PROCEED. FOLLOWING COMPLETION COUNSELLOR WILL DIRECT STUDENTS' DISCUSSION OF THEIR RESULTS, FOCUSING ON THE WAYS IN WHICH THEIR FEARS ARE SIMILAR AND DIFFERENT FROM EACH OTHERS'.)	PROVIDING OVERVIEW STATING OBJECTIVES GIVING DIRECTIONS PROBING PROMPTING REFLECTING STUDENT RESPONSES	EACH STUDENT WILL COMPLETE FEAR SURVEY SCHEDULE. STUDENTS WILL DISCUSS RESULTS.
(7.02) COUNSELLOR EXPLAINS FUNCTIONS OF AND REACTIONS TO FEAR. (5 min) At this point, I want to tell you some things about fear that you might not have considered before.	GIVING BACKGROUND INFORMATION GIVING CLARIFYING EXAMPLES	STUDENTS MAY PROVIDE EXAMPLES.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
The functions of fear: 1. to protect us from danger - for example, fright gives us extra energy to run from danger (- COUNSELLOR ASKS FOR STUDENT EXAMPLES) 2. to provide pressure to conform to the group (- COUNSELLOR EXPLAINS THAT THIS MAY HAVE BEEN MORE NECESSARY IN PRIMITIVE SOCIETY THAN IT IS AT PRESENT) The reactions to fear: 1. flight -- run away, escape, move away from the threat 2. fight -- face the threat, confront it, move toward it 3. fright -- paralysis is felt, indecision, frozen state		
(7.03) COUNSELLOR FACILITATES DISCUSSION OF INDIVIDUAL STUDENTS' PERSONAL REACTIONS TO FEAR. (5-10 min)	GIVING INSTRUCTIONS PROBING	STUDENTS DISCUSS INDIVIDUAL REACTIONS TO FEAR, WITH EACH STU-

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
Think about times when you feel afraid. Look back at your responses to the Fear Survey Schedule if you wish. Now let's take a few minutes to discuss our own, personal reactions to the fears we have. (COUNSELLOR ATTEMPTS TO ELICIT RESPONSE FROM EACH GROUP MEMBER, DIRECTING ATTENTION TO SIMILARITIES AND DIFFERENCES IN RESPONSES.)	PROMPTING REFLECTING STUDENT RESPONSES GIVING DESCRIPTIVE PRAISE SUMMARIZING	DENT PARTICIPATING IN DISCUSSION.
(7.04) COUNSELLOR INTRODUCES AND STRUCTURES SMALL GROUP ACTIVITY TO BROADEN THE DISCUSSION OF COMMON FEARS. (15 min) During the following activity you will work in pairs or dyads. In your dyad, your purpose is to listen to your partner's opinions on and reactions to a series of four statements about fear. Also, you will be asked to express your own feelings about these four statements. In preparation for our discussion as a whole group, your dyad	GIVING INSTRUCTIONS GIVING DESCRIPTIVE PRAISE SUGGESTING ALTERNATIVES PROBING PROMPTING REFLECTING STUDENT RESPONSES SUMMARIZING	STUDENTS DIVIDE INTO DYADS. EACH STUDENT LISTENS TO PARTNER's VIEWS AND VOICES PERSONAL VIEWS. STUDENTS ORGANIZE THEIR VIEWS IN DYADS IN PREPARATION FOR WHOLE GROUP DISCUSSION.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
is then to organize the ideas you have discussed so that you can compare them to others that you will hear. (COUNSELLOR DIRECTS THE ORGANIZATION OF DYADS, ISSUES CARDS WITH FOUR STATEMENTS, AND CIRCULATES TO FOSTER DISCUSSION.)		
(7.05) COUNSELLOR REASSEMBLES THE GROUP AND FACILITATES SHARING OF IDEAS FROM DYADIC DISCUSSIONS. (10 min)	PROVIDING OVERVIEW GIVING DESCRIPTIVE PRAISE GIVING CLARIFICATION PROBING PROMPTING REFLECTING STUDENT RESPONSES	STUDENTS PARTICIPATE IN SHARING OF OPINIONS FROM DYADS.
(7.06) COUNSELLOR SUMMARIZES THE SESSION'S ACTIVITIES. (2-3 min) The purpose of these activities today has been to make us all more aware of	SUMMARIZING ELICITING EXAMPLES	STUDENTS MAY PROVIDE EXAMPLES.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
how common many fears are and of the similarities and differences in our reactions to our fears. (COUNSELLOR ELICITS STUDENTS' EXAMPLES OF SIMILARITIES IF TIME PERMITS.)		

FEAR SURVEY

The items in this questionnaire refer to things and experiences that may cause fear and unpleasant feelings. Read each item and decide how much you are disturbed by it.

For example, if swimming causes you no fear you would write (1) not at all. If you would feel a little fear write in a (2). If you feel more afraid mark a higher number (3) a fair amount, or (4) much, or (5) very much, depending on how you feel about the item. Answer all items and do not spend too much time on one statement.

1 = not at all

2 = a little

3 = a fair amount

4 = much

5 = very much

APPENDIX A

FACE YOUR FEARS:

Object:

To bring your fears into the open, where you can study them.

Procedure:

Read down the list. Place a checkmark in front of those of which you are usually afraid or about which you tend to worry. If your reaction is merely one of reasonable caution do not check that item. Proceed quickly.

___ rats, mice
___ snakes
___ the dark
___ storms
___ stage fright
___ night noises
___ lightning
___ big machinery
___ deep water
___ dentists
___ bulls
___ bats
___ your own death
___ electricity
___ explosions
___ acids
___ floods
___ doctors
___ horses
___ airplanes

___ guns
___ gas, choking smoke
___ being alone
___ spiders
___ mad dogs
___ being fat
___ worms
___ surgery
___ burglars
___ insane persons
___ fires
___ drunken men
___ sudden noises
___ big men
___ poisoned food
___ big black bugs
___ childbirth
___ being mutilated
___ being unpopular

___ extreme pain
___ policemen
___ heart failure
___ making social blunders
___ tramps
___ going blind
___ being laughed at
___ illness of loved ones
___ death of loved ones
___ failing school subject
___ being embarrassed
___ feeble-minded persons
___ being murdered
___ hemorrhages
___ being crippled
___ suicide
___ convicts
___ hypodermic needles
___ going insane

List any others that occur to you which are not listed above:

1 = not at all
2 = a little
3 = a fair amount
4 = much
5 = very much

1. Noise of Vacuum Cleaners ☐ 11
2. Open wounds ☐
3. Being alone ☐
4. Loud voices ☐
5. Speaking in public ☐ 15
6. Crossing streets ☐
7. People who seem insane ☐
8. Being in a strange place ☐
9. Falling ☐
10. Automobiles ☐ 20
11. Being teased ☐
12. Dentists ☐
13. Thunder ☐
14. Sirens ☐
15. Failure ☐ 25
16. Entering a room when other people are already seated ☐
17. High places on land ☐
18. Looking down from high buildings ☐ 28
19. Worms ☐
20. Imaginary creatures ☐ 30
21. Receiving injections ☐
22. Strangers ☐
23. Bats ☐
24. Journey by train ☐
25. Feeling angry ☐ 35
26. People in authority ☐
27. Flying insects ☐
28. Seeing other people injected ☐
29. Sudden noises ☐
30. Journeys by car ☐ 40
31. Dull weather ☐
32. Crowds ☐
33. Cats ☐
34. One person bullying another ☐ 44

1 = not at all
2 = a little
3 = a fair amount
4 = much
5 = very much

35. Tough looking people ☐ 45
36. Birds ☐
37. Sight of deep water ☐
38. Being watched working ☐
39. Dead animals ☐
40. Weapons ☐ 50
41. Dirt ☐
42. Journeys by bus ☐
43. Crawling insects ☐
44. Seeing a fight ☐
45. Ugly people ☐ 55
46. Fire ☐
47. Sick people ☐
48. Being criticized ☐
49. Strange shapes ☐
50. Being in an elevator ☐ 60
51. Witnessing surgical operations ☐
52. Angry people ☐
53. Mice or rats ☐ 63
54. Human blood ☐
55. Animal blood ☐ 65
56. Parting from friends ☐
57. Enclosed places ☐
58. Prospects of a surgical operation ☐
59. Feeling rejected by others ☐
60. Journeys by airplane ☐ 70
61. Medical odors ☐
62. Feeling disapproved of ☐
63. Harmless snakes ☐
64. Cemeteries ☐
65. Being ignored ☐ 75
66. Darkness ☐
67. Premature heartbeats (missing a beat) ☐
68. Lightning ☐
69. Doctors ☐ 79

3 80

1 = not at all
2 = a little
3 = a fair amount
4 = much
5 = very much

70. Crippled or deformed people ☐ 10
71. Fainting ☐
72. Dogs ☐
73. Making mistakes ☐
74. Looking foolish ☐
75. Harmless spiders ☐ 15
76. Being responsible for decisions ☐
77. Becoming nauseous ☐
78. Sight of knives ☐
79. Taking written tests ☐
80. Large open spaces ☐ 20
81. Germs ☐
82. Taking medicine ☐
83. Being dressed unsuitably (wearing wrong clothes for the occasion) ☐
84. Ministers or priests ☐
85. Hurting the feelings of others ☐ 25
86. Undertakers ☐
87. Police ☐
88. Fish ☐
89. Leaving home ☐
90. Physical examinations ☐ 30
91. Volunteering ideas in class ☐
92. Marriage ☐
93. Insecticides ☐
94. Vomiting ☐
95. Hospitals ☐ 35
96. Answering the teacher's questions ☐
97. Losing control of yourself ☐
98. Responsibility (being in charge) ☐
99. Fast cars ☐ 39

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(8.01) COUNSELLOR LEADS DISCUSSION OF THE COMMON FEARS OF INFANTS. (5min) In our last lesson we explored the idea that many of us share common fears as well as similar reactions to those fears. Today we will begin by talking about the ways in which our fears change as we develop from infants to adults. Infants do show some similar fears -- does anyone have any ideas about what these fears are? (COUNSELLOR ELICITS OR PROVIDES THE INFORMATION THAT INFANTS FEAR LOUD NOISES, FALLING SENSATIONS, SUDDEN MOVEMENTS; AND ENCOURAGES DISCUSSION OF POSSIBLE REASONS FOR THESE FEARS.)	SUMMARIZING PROVIDING PARTIAL OVERVIEW PROVIDING AND ELICITING INFORMATION PROBING PROMPTING REFLECTING STUDENT RESPONSES	STUDENTS OFFER EXAMPLES AND EXPLANATIONS OF INFANTILE FEARS.
(8.02) COUNSELLOR DIRECTS GROUP CONSIDERATION OF COMMON FEARS OF SMALL CHILDREN. (5 min) What do you think are the common fears of small children and what are the	PROVIDING AND ELICITING INFORMATION PROBING PROMPTING	STUDENTS OFFER EXAMPLES AND EXPLANATIONS OF YOUNG CHILDREN's FEARS.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
reasons for these fears? (COUNSELLOR ENCOURAGES SHARING OF OPINIONS AND PROVIDES FOLLOWING INFORMATION. One third of small children identify a fear of thunder and lightning. Then, in order of ranking, they share fears of -- people, reptiles, darkness, death, domestic animals, rats and mice, insects, ghosts, wind, the end of the world, water. Low on the list are self-consciousness, solitude, shyness, ridicule. COUNSELLOR ATTEMPTS TO FOCUS GROUP DISCUSSION ON THE POSSIBLE REASONS FOR CHILDREN FEELING THIS WAY.)	REFLECTING STUDENT RESPONSES GIVING DESCRIPTIVE PRAISE	
(8.03) COUNSELLOR ASKS GROUP TO SPECULATE ON WHAT FEARS WOULD BE COMMON TO OLDER CHILDREN AND ADOLESCENTS. (10 min) As we grow older our awareness and perception of our world changes and so do our fears. What do you think	PROVIDING AND ELICITING INFORMATION PROBING PROMPTING	STUDENTS OFFER EXAMPLES AND EXPLANATIONS OF OLDER CHILDREN'S AND ADOLESCENTS' FEARS. STUDENTS DISCUSS POS-

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
older children would usually fear? (COUNSELLOR ENCOURAGES SHARING OF IDEAS AND PROVIDES INFORMATION: Older children express a greater fear of bodily harm and physical danger, also of strange circumstances such as the dark, being left alone, lights and shadows. They also express fear of being scolded or reprimanded.) What do people your age fear, usually? (COUNSELLOR FACILITATES SHARING OF OPINIONS ON COMMON FEARS AND ON REASONS FOR CHANGES AS ONE MATURES.)	REFLECTING STUDENT RESPONSES GIVING DESCRIPTIVE PRAISE SUMMARIZING	SIBLE REASONS FOR CHANGES IN FEARS AS ONE MATURES.
(8.04) COUNSELLOR ASKS FOR A DEFINITION OF A PHOBIA AND FOR AN EXPLANATION OF THE DIFFERENCE BETWEEN A PHOBIA AND A FEAR. COUNSELLOR READS DESCRIPTION OF ANXIETY, FEAR, AND PHOBIA; THEN ASKS AGAIN FOR A DEFINITION OF PHOBIA, ELICITING THE CONCEPT OF A DEEP, UNREASONABLE, PERSISTENT FEAR. (5 min)	PROBING PROMPTING CLARIFYING PROVIDING INFORMATION GIVING DESCRIPTIVE PRAISE	STUDENTS OFFER DEFINITION OF PHOBIA. STUDENTS REFINE AND CLARIFY DEFINITION.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
(8.05) COUNSELLOR LEADS DISCUSSION OF PHOBIAS, USING A HANDOUT LIST OF PHOBIAS AS A SPUR TO DISCUSSION. (15 min) Now we all have a clearer understanding of exactly what a phobia is. For an even more accurate idea of the different forms a phobia can take, let's look at a partial list describing some phobias. (COUNSELLOR ENCOURAGES DISCUSSION OF THE LIST.) What physical reactions do you think people might have to a phobia? (COUNSELLOR DRAWS OUT AND/OR PROVIDES INFORMATION -- HEART-RATE, BREATHING, CHOKING SENSATIONS, NAUSEA, VOMITING OR DIARRHEA, SHAKING, SHUDDERING, SWEATING, DIZZINESS, INSOMNIA, SENSITIVITY TO SOUNDS AND LIGHTS.) Do people have any of the same reactions to fears and anxieties?	PROVIDING INFORMATION PROBING PROMPTING REFLECTING CLARIFYING GIVING DESCRIPTIVE PRAISE	STUDENTS READ LIST OF PHOBIAS. STUDENTS DISCUSS VARIETY OF REACTIONS TO PHOBIAS. STUDENTS CLARIFY SIMILARITY OF RESPONSES TO PHOBIAS AND ANXIETIES.
(8.06) COUNSELLOR INSTRUCTS GROUP MEMBERS TO ANONYMOUSLY WRITE DOWN A	PROVIDING OVERVIEW	STUDENTS CLOSE EYES AND REMAIN SILENT

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
PHOBIA THAT EACH ONE HAS EXPERIENCED. (5 min) We are going to take a few minutes right now to think about our personal fears. During this exercise you are to close your eyes and concentrate on your own memories and feelings without communicating them to your fellow group-members. Try to remember whether you have ever felt a reaction similar to the phobic reaction we have been talking about. If you have ever had this feeling, concentrate on your memory of it -- what did you feel like? what started it? how long did it last? how did you feel afterwards? what did you do about the feeling? If you can't recall ever having experienced a phobic reaction, can you remember feeling an exceptionally strong fear -- some fear that stands out in your mind as being stronger than a common fear that you usually deal with? Then concentrate on this memory -- what did	SETTING EMOTIONAL TONE USING KEY QUESTIONS CLARIFYING SUMMARIZING GIVING INSTRUCTIONS	DURING EXERCISE. STUDENTS WRITE BRIEF DESCRIPTIONS OF FEARS OR PHOBIAS ON CARDS WHICH THEY HAND TO COUNSELLOR.

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
you feel like? (COUNSELLOR CONTINUES TO ASK QUESTIONS AND MAKE CLARIFYING COMMENTS TO FACILITATE EACH GROUP MEMBER'S RECALL OF A PARTICULARLY FEARFUL EXPERIENCE. THEN COUNSELLOR INSTRUCTS MEMBERS TO OPEN THEIR EYES AND, WITHOUT IDENTIFYING THEMSELVES BY NAME, WRITE ON THE CARD IN FRONT OF THEM A BRIEF DESCRIPTION OF A PHOBIA OR FEAR THEY HAVE EXPERIENCED. COUNSELLOR COLLECTS CARDS.)		
(8.07) COUNSELLOR HAS GROUP OFFER ANALYSIS OF THE PHOBIAS EXPRESSED BY INDIVIDUALS ON THE ANONYMOUS CARDS. (10 min)	PROBING PROMPTING REFLECTING CLARIFYING GIVING DESCRIPTIVE PRAISE	STUDENTS SHARE REACTIONS TO INFORMATION ON CARDS.
This is one phobia that someone has experienced. (COUNSELLOR READS DESCRIPTION.) How serious would this phobia be? How much would it interfere with a person's life? How would you feel if you had this phobia? What would you advise some one to do about such a feeling? (COUNSELLOR CONTINUES		

A C T I V I T I E S

COUNSELLOR	SKILL	STUDENT
TO ASK FOR GROUP "BRAINSTORMING" OF IDEAS AND REACTIONS.)		
(8.08) COUNSELLOR CONCLUDES GROUP SESSION BY TALKING ABOUT RELATIONSHIP OF FEAR TO OTHER EMOTIONS. (5 min) Sometimes we feel upset and don't realize that fear is involved. For example, can anyone remember having felt anger because of being afraid? (COUNSELLOR OFFERS EXAMPLES OF A CORNERED ANIMAL CHANGING FROM FEAR TO RAGE AND A THREATENED PERSON SIMILARLY REACTING ANGRILY TO FEAR. STUDENT RESPONSES ARE ENCOURAGED. DISCUSSION OF FEELINGS SUCH AS GUILT, DEPENDENCY, INSECURITY, AND FRUSTRATION FOLLOWS, IF TIME PERMITS.)	PROVIDING INFORMATION CLARIFYING PROBING PROMPTING REFLECTING GIVING DESCRIPTIVE PRAISE	STUDENTS OFFER EXAMPLES AND EXPLANATIONS.

On the perimeters of our fear, on the edges of what psychologists like to call "authentic fear," are phobias and anxiety.

If we think about the development of our fears as a path that we travel, from low intensity to high, our anxiety would be at the beginning. It might be a meadow with the grass just a little too high to be comfortable and dense enough so that we worry about stepping on a piece of glass, if we were barefooted, or maybe even coming across a snake. There might be several areas where the grass is beaten down, indicating several starts at a path, but it is not clear which one we will take. So we wander around a bit, somewhat aimlessly, looking for the right way to go and worried that we won't find it. Also there can be the feeling of excitement that we are doing something new and refreshing and we cannot anticipate what this holds for us. Our body responds to this with a certain amount of tension and, in a minor way, with some of the same responses it would if we were afraid of something specific.

APPENDIX F

EXPERIMENT ONE

ANALYSES OF VARIANCE FOR BOTH SCREENING AND DEPENDENT VARIABLES

Table 1

One-Way Analysis of Variance on Study Habits Checklist (Screening) Experiment One

Source	SS	df	MS	F	P
Between Groups	9.6323	2	4.8161	0.366	0.6953
Within Groups	447.5399	34	13.1629		
Total	457.1721	36			

Table 2

One-Way Analysis of Variance on the Test Anxiety Scale (Screening) Experiment One

Source	SS	df	MS	F	P
Between Groups	878.5417	2	439.2708	1.018	0.3722
Within Groups	14675.1470	34	431.6218		
Total	15553.6875	36			

Table 3

One-Way Analysis of Variance on the Fear Survey Schedule (Screening) Experiment One

Source	SS	df	MS	F	P
Between Groups	15059.4578	2	7529.7266	2.775	.0765
Within Groups	92265.1367	34	2713.6804		
Total	107324.5625	36			

Table 4

One-Way Analysis of Variance
on STAI-State
Experiment One

Source	SS	df	MS	F	P
Between Group	231.1630	2	115.5815	0.68	0.511
Within Groups	4533.8044	27	167.9187		
Total	4764.9648	29			

Table 5

One-Way Analysis of Variance
on the STAI-Trait
Experiment One

Source	SS	df	MS	F	P
Between Groups	171.0737	2	85.5369	1.724	0.1975
Within Groups	1339.8882	27	49.6255		
Total	1510.9619	29			

Table 6

One-Way Analysis of Variance
on the TAI-T
Experiment One

Source	SS	df	MS	F	P
Between Groups	1235.2869	2	617.6433	8.461	0.0014*
Within Groups	1970.8865	27	72.9958		
Total	3206.1733	29			

* Significant

Table 7

One-Way Analysis of Variance
on the TAI-W
Experiment One

Source	SS	df	MS	F	P
Between Groups	244.9994	2	122.4997	11.906	0.0002*
Within Groups	277.8055	27	10.2891		
Total	522.8047	29			

Table 8

One-Way Analysis of Variance
on the TAI-E
Experiment One

Source	SS	df	MS	F	P
Between Groups	136.5914	2	68.2957	3.922	0.0320*
Within Groups	470.1110	27	17.4115		
Total	606.7024	29			

Table 9

One-Way Analysis of Variance
on the CTBS-Reading
Experiment One

Source	SS	df	MS	F	P
Between Groups	27.9151	2	13.9576	0.204	0.8169
Within Groups	1849.5542	27	68.5020		
Total	1877.4692	29			

* Significant

Table 10

One-Way Analysis of Variance
on the CTBS-Math Test
Experiment One

Source	SS	df	MS	F	P
Between Groups	58.8925	2	29.4462	0.614	0.5485
Within Groups	1294.4707	27	47.9434		
Total	1353.3630	29			

Table 11

Apriori Contrasts on the TAI-T
Experiment One

	Value	SE	T	df	P
Contrast 1	-13.611	3.4145	-3.986	27	0.000*
Contrast 2	- 5.000	3.7674	-1.327	27	0.196

Table 12

Apriori Contrasts on the TAI-W
Experiment One

	Value	SE	T	df	P
Contrast 1	-6.0139	1.2819	-4.691	27	0.000*
Contrast 2	-2.4167	1.4144	-1.709	27	0.099

Table 13

Apriori Contrasts on the TAI-E
Experiment One

	Value	SE	T	df	P
Contrast 1	-4.4167	1.6676	-2.648	27	0.013*
Contrast 2	-2.0556	1.8400	-1.117	27	0.274

* Significant

Table 14

Two-Way Repeated Measures Analysis of Variance on the STAI-State Experiment One

Source	SS	df	MS	F	P
Between Subjects					
Treatment	200.544	2	100.272	0.411	0.667
$Error_b$	6594.438	27	244.238		
Within Subjects					
Time	1079.271	1	1079.271	17.217	0.001*
Treat x Time	160.159	2	80.08	1.277	0.295
$Error_w$	1692.500	27	62.685		
Total	9726.932	59			

Table 15

Two-Way Repeated Measures Analysis of Variance on the STAI-Trait Experiment One

Source	SS	df	MS	F	P
Between Subjects					
Treatment	285.648	2	142.824	1.495	0.242
$Error_b$	2579.188	27	95.525		
Within Subjects					
Time	0.767	1	0.767	0.055	0.816
Treat x Time	49.551	2	24.776	1.776	0.189
$Error_w$	376.688	27	13.951		
Total	3291.842	59			

* Signficant

Table 16

Two-Way Repeated Measures Analysis of Variance on the TAI-T Experiment One

Source	SS	df	MS	F	P
Between Subjects					
Treatment	663.763	2	331.881	2.019	0.152
$Error_b$	4438.355	27	164.384		
Within Subjects					
Time	1151.156	1	1511.156	26.815	0.001*
Treat x Time	731.032	2	365.516	6.486	0.005*
$Error_w$	1521.523	27	56.354		
Total	8865.829	59			

Table 17

Two-Way Repeated Measures Analysis of Variance on the TAI-W Experiment One

Source	SS	df	MS	F	P
Between Subjects					
Treatment	128.456	2	64.228	2.532	0.098
$Error_b$	684.906	27	25.367		
Within Subjects					
Time	170.061	1	170.061	12.877	0.001*
Treat x Time	141.489	2	70.744	5.357	0.011*
$Error_w$	356.570	27			
Total	1541.482	59			

* Significant

Table 18

Two-Way Repeated Measures Analysis of Variance on the TAI-E Experiment One

Source	SS	df	MS	F	P
Between Subjects					
Treatment	75.144	2	37.572	1.108	0.345
$Error_b$	915.352	27	33.902		
Within Subjects					
Time	388.918	1	388.918	45.368	0.001*
Treat x Time	106.660	2	53.330	6.221	0.006*
$Error_w$	231.457	27			
Total	1817.531	59			

Table 19

Two-Way Repeated Measures Analysis of Variance on the CTBS-Reading Experiment One

Source	SS	df	MS	F	P
Between Subjects					
Treatment	82.668	2	41.334	0.401	0.673
$Error_b$	2782.238	27	103.046		
Within Subjects					
Time	159.124	1	159.124	13.36	0.001*
Treat x Time	17.70	2	8.85	0.743	0.485
$Error_w$	321.57	27			
Total	3363.300	59			

* Significant

Table 20

Two-Way Repeated Measures Analysis of Variance on the CTBS-Math Experiment One

Source	SS	df	MS	F	P
Between Subjects					
Treatment	79.670	2	39.835	0.47	0.63
$Error_b$	2286.57	27	84.688		
Within Subjects					
Time	145.102	1	145.103	21.137	0.001*
Treat x Time	11.508	2	5.754	0.838	0.443
$Error_w$	185.352	27	6.865		
Total	2708.203	59			

* Significant

Table 21

One-Way Analysis of Variance on the STAI-State
Experiment One

Source	SS	df	MS	F	P
Between Groups	92.0116	2	46.0058	0.342	0.7125
Within Groups	4569.0894	34	134.3850		
Total	4661.0977	36			

Table 22

One-Way Analysis of Variance on the STAI-Trait
Experiment One

Source	SS	df	MS	F	P
Between Groups	117.9737	2	58.9868	0.856	0.4337
Within Groups	2342.1052	34	68.8854		
Total	2460.0789	36			

Table 23

One-Way Analysis of Variance on the TAI-T
Experiment One

Source	SS	df	MS	F	P
Between Groups	23.1007	2	11.5504	0.088	0.9158
Within Groups	4453.6052	34	130.9884		
Total	4476.7031	36			

Table 24

One-Way Analysis of Variance on the TAI-W
Experiment One

Source	SS	df	MS	F	P
Between Groups	5.7709	2	2.8855	0.11	0.8961
Within Groups	891.4276	34	26.2184		
Total	897.1985	36			

Table 25

One-Way Analysis of Variance on the TAI-E
Experiment One

Source	SS	df	MS	F	P
Between Groups	15.5607	2	7.7804	0.328	0.7228
Within Groups	807.2538	34	23.7428		
Total	822.8145	36			

Table 26

One-Way Analysis of Variance on the CTBS-Reading
Experiment One

Source	SS	df	MS	F	P
Between Groups	6.6001	2	3.3001	0.055	0.9461
Within Groups	2022.1536	34	59.4751		
Total	2028.7537	36			

Table 27

One-Way Analysis of Variance on the CTBS-Math
Experiment One

Source	SS	df	MS	F	P
Between Groups	1.9287	2	0.9644	0.024	0.9759
Within Groups	1345.3132	34	39.5680		
Total	1347.2419	36			

APPENDIX G

EXPERIMENT TWO

ANALYSES OF VARIANCE FOR BOTH SCREENING AND DEPENDENT VARIABLES

Table 1

One-Way Analysis of Variance
on Study Habits Checklist (Screening)
Experiment Two

Source	SS	df	MS	F	P
Between Groups	146.9303	2	73.4651	0.203	0.8178
Within Groups	10153.7893	28	362.6353		
Total	10300.7188	30			

Table 2

One-Way Analysis of Variance
on Test Anxiety Scale (Screening)
Experiment Two

Source	SS	df	MS	F	P
Between Groups	96.4552	2	48.2276	1.181	0.3217
Within Groups	1143.2263	28	40.8295		
Total	1239.6814	30			

Table 3

One-Way Analysis of Variance
on Fear Survey Schedule (Screening)
Experiment Two

Source	SS	df	MS	F	P
Between Groups	776.4970	2	388.2483	0.100	0.9053
Within Groups	108834.3086	28	3886.9395		
Total	109610.7500	30			

Table 4

One-Way Analysis of Variance
on the STAI-State
Experiment Two

Source	SS	df	MS	F	P
Between Groups	1360.2895	2	680.1445	5.511	0.0143*
Within Groups	2097.9036	17	123.4061		
Total	3458.1929	19			

Table 5

One-Way Analysis of Variance
on the STAI-Trait
Experiment Two

Source	SS	df	MS	F	P
Between Groups	113.2340	2	56.6170	0.563	0.5796
Within Groups	1708.5703	17	100.5041		
Total	1821.8042				

Table 6

One-Way Analysis of Variance
on the TAI-T
Experiment Two

Source	SS	df	MS	F	P
Between Groups	1432.7219	2	716.3608	5.519	0.0142*
Within Groups	2206.4751	17	129.7926		
Total	3639.1968	19			

* Significant

Table 7

One-Way Analysis of Variance
on the TAI-W
Experiment Two

Source	SS	df	MS	F	P
Between Groups	382.3945	2	191.1973	8.752	0.0024*
Within Groups	371.4047	17	21.8473		
Total	753.7991	19			

Table 8

One-Way Analysis of Variance
on the TAI-E
Experiment Two

Source	SS	df	MS	F	P
Between Groups	188.1816	2	94.0908	3.294	0.0618
Within Groups	485.6189	17	28.5558		
Total	673.8003	19			

Table 9

One-Way Analysis of Variance
on the CTBS-Reading
Experiment Two

Source	SS	df	MS	F	P
Between Groups	524.3394	2	262.1697	6.300	0.0090*
Within Groups	707.4043	17	41.6120		
Total	1231.7437	19			

* Significant

Table 10

One-Way Analysis of Variance
on the CTBS-Math Test
Experiment Two

Source	SS	df	MS	F	P
Between Groups	211.5215	2	105.7607	4.055	0.0363*
Within Groups	443.4285	17	26.0840		
Total	654.9500	19			

Table 11

Apriori Contrasts on the STAI-State
Experiment Two

	Value	SE	T	df	P
Contrast 1	-15.1905	5.4206	-2.802	17	0.012
Contrast 2	10.5714	5.9379	1.78	17	0.093

Table 12

Apriori Contrasts on the TAI-T
Experiment Two

	Value	SE	T	df	P
Contrast 1	-15.9048	5.559	-2.861	17	0.011*
Contrast 2	-10.2857	6.0896	-1.689	17	0.109

Table 13

Apriori Contrasts on the TAI-W
Experiment Two

	Value	SE	T	df	P
Contrast 1	-7.5238	2.2807	-3.299	17	0.004*
Contrast 2	-6.4286	2.4984	-2.573	17	0.020*

* Significant

Table 14

Apriori Contrasts on the CTBS-Reading
Experiment Two

	Value	SE	T	df	P
Contrast 1	7.9762	3.1476	2.534	17	0.021*
Contrast 2	8.5714	3.4481	2.486	17	0.024*

Table 15

Apriori Contrasts on the CTBS-Math
Experiment Two

	Value	SE	T	df	P
Contrast 1	5.6429	2.4921	2.264	17	0.037*
Contrast 2	4.7143	2.7299	1.727	17	0.102

Table 16

Two-Way Repeated Measures Analysis
of Variance on the STAI-State
Experiment Two

Source	SS	df	MS	F	P
Between Subjects					
Treatment	1367.219	2	683.610	4.474	0.027*
$Error_b$	2597.438	17	152.790		
Within Subjects					
Time	503.016	1	503.016	7.715	0.013*
Treat x Time	250.627	2	125.314	1.922	0.177
$Error_w$	1108.438	17			
Total	5826.738	39			

* Significant

Table 17

Two-Way Repeated Measures Analysis of Variance on the STAI-Trait Experiment Two

Source	SS	df	MS	F	P
Between Subjects					
Treatment	182.161	2	91.081	0.589	0.566
$Error_b$	2630.563	17	154.739		
Within Subjects					
Time	166.178	1	166.178	5.692	0.029*
Treat x Time	8.367	2	4.184	0.143	0.868
$Error_w$	496.313	17			
Total	3483.582	39			

Table 18

Two-Way Repeated Measures Analysis of Variance on the TAI-T Experiment Two

Source	SS	df	MS	F	P
Between Subjects					
Treatment	1173.479	2	586.739	3.089	0.072
$Error_b$	3229.438	17	189.967		
Within Subjects					
Time	546.587	1	546.587	6.275	0.023*
Treat X Time	485.944	2	242.972	2.789	0.090
$Error_w$	1480.813	17			
Total	6916.261	39			

* Significant

Table 19

Two-Way Repeated Measures Analysis of Variance on the TAI-W Experiment Two

Source	SS	df	MS	F	P
Between Subjects					
Treatment	482.392	2	241.196	6.26	0.009*
$Error_b$	654.992	17	38.529		
Within Subjects					
Time	72.858	1	72.858	4.71	0.044*
Treat x Time	43.219	2	21.609	1.397	0.274
$Error_w$	262.992	17	15.470		
Total	1516.453	39			

Table 20

Two-Way Repeated Analysis of Variance on the TAI-E Experiment Two

Source	SS	df	MS	F	P
Between Subjects					
Treatment	78.818	2	39.409	0.864	0.439
$Error_b$	775.098	17	45.594		
Within Subjects					
Time	104.302	1	104.302	5.808	0.028*
Treat x Time	139.848	2	69.924	3.894	0.041*
$Error_w$	305.289	17	17.958		
Total	1403.355	39			

* Significant

Table 21

Two-Way Repeated Analysis of Variance
on the CTBS-Reading
Experiment Two

Source	SS	df	MS	F	P
Between Subjects					
Treatment	855.976	2	427.988	7.523	0.005*
$Error_b$	967.098	17	56.888		
Within Subjects					
Time	387.091	1	387.091	49.961	0.001*
Treat x Time	18.179	2	9.089	1.173	0.333
$Error_w$	131.715	17	7.748		
Total	2360.059	39			

Table 22

Two-Way Repeated Analysis of Variance
on the CTBS-Math
Experiment Two

Source	SS	df	MS	F	P
Between Subjects					
Treatment	349.013	2	174.506	3.732	0.045*
$Error_b$	794.813	17	46.754		
Within Subjects					
Time	24.070	1	24.070	3.555	0.077
Treat x Time	4.472	2	2.236	0.330	0.723
$Error_w$	115.098	17	6.770		
Total	1287.466	39			

* Significant

Table 23

One-Way Analysis of Variance on the STAI-State
Experiment Two

Source	SS	df	MS	F	P
Between Groups	359.3445	2	179.6723	1.863	0.1739
Within Groups	2700.3794	28	96.4421		
Total	3059.7239	30			

Table 24

One-Way Analysis of Variance on the STAI-Trait
Experiment Two

Source	SS	df	MS	F	P
Between Groups	165.9685	2	82.9843	1.139	0.3347
Within Groups	2040.7439	28	72.8837		
Total	2206.7124	30			

Table 25

One-Way Analysis of Variance on the TAI-T
Experiment Two

Source	SS	df	MS	F	P
Between Groups	316.8516	2	158.4258	1.016	0.3749
Within Groups	4364.5059	28	155.8752		
Total	4681.3555	30			

Table 26

One-Way Analysis of Variance on the TAI-W
Experiment Two

Source	SS	df	MS	F	P
Between Groups	161.3103	2	80.6551	2.917	0.077
Within Groups	774.2358	28	27.6513		
Total	935.5459	30			

Table 27

One-Way Analysis of Variance on the TAI-E
Experiment Two

Source	SS	df	MS	F	P
Between Groups	33.2888	2	16.6444	0.452	0.6411
Within Groups	1031.8082	28	36.8503		
Total	1065.0969	30			

Table 28

One-Way Analysis of Variance on the CTBS-Reading
Experiment Two

Source	SS	df	MS	F	P
Between Groups	474.6362	2	237.3181	7.415	0.0026*
Within Groups	896.1358	28	32.0048		
Total	1370.7720	30			

Table 29

One-Way Analysis of Variance on the CTBS-Math
Experiment Two

Source	SS	df	MS	F	P
Between Groups	199.5024	2	99.7512	3.807	0.6611
Within Groups	733.5994	28	26.2000		
Total	933.1018	30			

* significant

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