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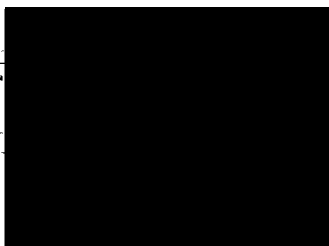
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THE DEVELOPMENT AND FIELD TESTING OF
TWO MANUALS FOR THE COUNSELLING OF
TEST ANXIOUS HIGH SCHOOL STUDENTS

by

Edwin George Baxter

B.A., Simon Fraser University, 1969

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS (EDUCATION)
in the Department
of
Education

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July 1979

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ABSTRACT

Debilitating test-related anxiety can be detrimental to the academic performance of high school students. Given this often recognized but seldom remediated circumstance, there is an obvious need for counselling intervention in this area of education. Thus, the concerns of this thesis were as follows: (1) to search out and examine the most effective counselling procedures employed to date for the treatment of test anxious students; (2) to use this information in conjunction with basic principles of curriculum and instruction to develop instructional counselling curricula for high school counsellors to employ in their work with test anxious students; (3) to field test the efficacy of these curricula with a sample of high school students; and (4) to discuss the implications of developing and incorporating instructional counselling curricula in high school settings.

A review of pertinent research literature identified two therapeutic techniques as being effective treatments for the alleviation of test anxiety - systematic desensitization and cognitive modification. These techniques formed a basis for the development of counselling procedures for use in high school settings. Instructional counselling manuals were developed using the general model of curriculum development advocated by Tyler (1950), Popham and Baker (1970).

A field test of these manuals was conducted in an attempt to empirically validate the effectiveness of the proposed instructional counselling programs, and to guarantee accountable counselling practice. Results of this test indicated that both systematic desensitization and cognitive

modification, when employed as outlined in the developed counselling manuals, are effective in alleviating test anxiety in high school settings.

The field test results were discussed in terms of their implications for the practice of counselling high school students. Special emphasis was placed upon the use of instructional rather than medical models of counselling; goal-referenced instructional and developmental models as a basis for designing, implementing, and evaluating instructional counselling curricula; and procedures for using the systematic desensitization and cognitive modification counselling manuals in the treatment of test anxious high school students.

To Colleen,

and

all educators sharing our vision

of

helping children become.

I wish to pay tribute to those of my colleagues who believe in the concept and practice of instructional counselling; who have unconditionally shared their experiences with me.

I especially want to recognize my supervisors, Dr. Jack Martin and Dr. Ron Marx of Simon Fraser University, for their unselfish and untiring efforts.

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CHAPTER I

RATIONALE AND DESCRIPTION OF THE PROBLEM

Test anxiety, whether it be rational or irrational, is experienced as a debilitating force which disrupts the capacity of the student to concentrate, think and remember, and is generally accompanied by states of extreme tension, restlessness and in some cases muscular contraction, headache, and nausea. The onset of such disruptive states before and during examinations obviously causes difficulties for students since academic success is based substantially on performance in examinations. (Mitchell & Ingham, 1969, p. 69)

The debilitating force of test anxiety on academic performance has been repeatedly documented by researchers (e.g. Alpert & Haber, 1960; Deffenbacher & Kemper, 1974; Desiderato & Koskinen, 1969; Holroyd, 1972; Mandler, 1972; Marlett & Watson, 1968; Meichenbaum, 1972; Sarason, 1957 & 1972; Spielberger, 1962; Walsh, Engbretson, and O'Brien, 1968; Wine, 1971). Studies generally indicate that highly test anxious students receive lower grades and have a higher academic failure rate than non-anxious students of equal intelligence (Meichenbaum, 1972; Sarason, 1957; Spielberger, 1962; Wine, 1971). In a similar vein, Walsh, Engbretson, and O'Brien (1968) showed that debilitating test anxiety, measured by Alpert and Habers' (1960) Achievement Anxiety Test (AAT), has a significant negative correlation with actual performance in test-taking situations. Desiderato and Koskinen (1969) found that when compared to low test anxious students, highly test anxious students tend to have lower grade point averages. On a wide variety of tasks, highly test anxious students consistently perform better under low risk conditions (Marlett & Watson, 1968). On the basis of such research it appears that high levels of test anxiety prevent many otherwise capable students from performing up to capacity.

Test-taking is a basic aspect of life for the high school student. Success or failure in school is, to a large extent, dependent upon how a student performs on, and copes with, examinations. For many students, debilitating anxiety in this situation is a serious problem.

Most educators, especially school counsellors, are familiar with students who claim to know course material, but complain that they lack the ability to organize logical and coherent answers to essay questions; that they experience the impairment of normal eating and sleeping patterns on the day preceding an examination; or that they become so tense and anxious during examinations that they "block out" and are unable to recall what they know. Some of these claims can be dismissed on the grounds of inadequate preparation, lack of academic ability, and/or poor study habits. The remainder, however, appear to be real and genuine in light of information available to teachers outside of formal test-taking situations. That is, on the basis of other indices of academic ability, knowledge, and study habits, the student is able to demonstrate mastery of and motivation to learn the subject matter in question. Thus, in such cases, low levels of achievement in test situations can be directly attributed to the students' high levels of situationally specific test anxiety.

The prevalence of test anxiety and its debilitating effects on academic performance creates a strong need for preventive and remedial counselling programs in educational institutions at the junior and senior secondary levels. Spielberger and Gaudry (1971) suggest that "negative correlations between anxiety and achievement tend to increase in size for the higher grade levels" (p. 41). Eysenck and Rachman (1965) estimated that 20 percent of school children fear examinations to the extent that they perform poorly in test-taking situations. Unfortunately, almost without exception,

studies and programs to date which focus on test anxiety and/or the treatment thereof have been conducted at the post-secondary level of education or in clinical settings with mature students. A review of the literature yielded only four published studies (Deffenbacher & Kemper, 1974; Laxer, 1969; Mann, 1972; Mann & Rosenthal, 1969) that dealt specifically with junior high school students.

No widespread programs to reduce test anxiety in students exist at the secondary level of public school education in British Columbia. This is in part the result of: (1) the clinical nature of previous treatment procedures that necessitate the use of trained therapists and special facilities; (2) the lack of school personnel, such as counsellors, trained in the use of instructional counselling techniques; and (3) the absence of an empirically researched data base upon which to formulate a counselling program for test anxious high school students.

Debilitating test-related anxiety can be detrimental to the academic performance of high school students. Given this often recognized but seldom remediated circumstance, there is an obvious need for counselling intervention in this area of education. Thus, the concerns of this thesis are as follows: (1) to search out and examine the most effective counselling procedures employed to date for the treatment of test anxious students; (2) to use this information in conjunction with the basic principles of curriculum and instruction to develop instructional counselling curricula for high school counsellors to employ in their work with test anxious students; (3) to field test the efficacy of these curricula with a sample of high school students; and (4) to discuss the implications of developing and incorporating instructional counselling curricula in high school settings.

CHAPTER II

DEVELOPMENT OF THE INSTRUCTIONAL COUNSELLING MANUALS

In this chapter, methods of incorporating therapeutic counselling techniques into instructional counselling manuals, for use by high school counsellors working with test anxious clients, are presented within the framework of a suggested model for the development of counselling curricula.

Popham and Baker (1970) advocate a goal-referenced instructional model (see Figure 1), fashioned after Tyler's (1950) principles of curriculum and instruction, as a scheme which features four essentially distinct operations to facilitate the development of effective curriculum packages and instructional procedures.

FIGURE 1. A GOAL-REFERENCED INSTRUCTIONAL MODEL



First, the objectives of instruction are specified in terms of learner behaviour.

Second, the student is preassessed as to his/her current status with respect to those instructional objectives.

Third, instructional activities that should bring about the intended objectives are designed.

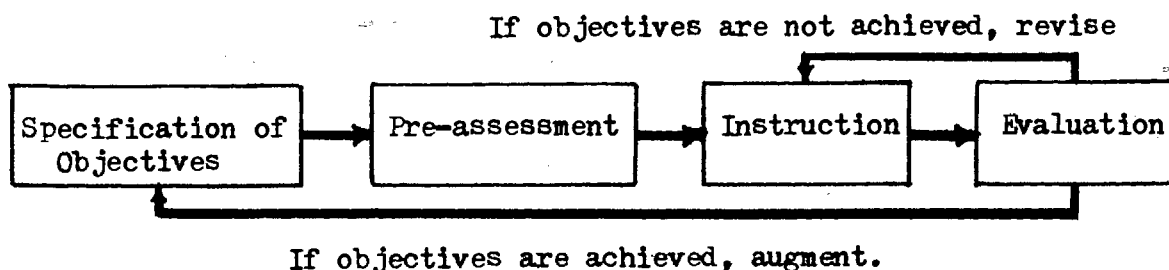
Fourth, the student's attainment of the objectives is evaluated. (Popham & Baker, 1970, p. 13)

A goal-referenced instructional model attends initially to the question of what observable behaviours the learner should possess at the conclusion of instruction (i.e. What do I want my learners to become?) and ultimately the desirability of such behaviours from the point of view of society

(i.e. What are society's objectives for the learner?). As such this is really a planning and assessment model more than a 'teacher procedures' scheme as it emphasizes the intellectual decision-making the teacher engages in prior to and after instruction.

One of the main features of this instructional model is its ability to self-correct. Figure 2 diagrams the common courses of action suggested by pupil post-instruction performance. As a result of learner data, modifications are made in the instructional sequence or objectives.

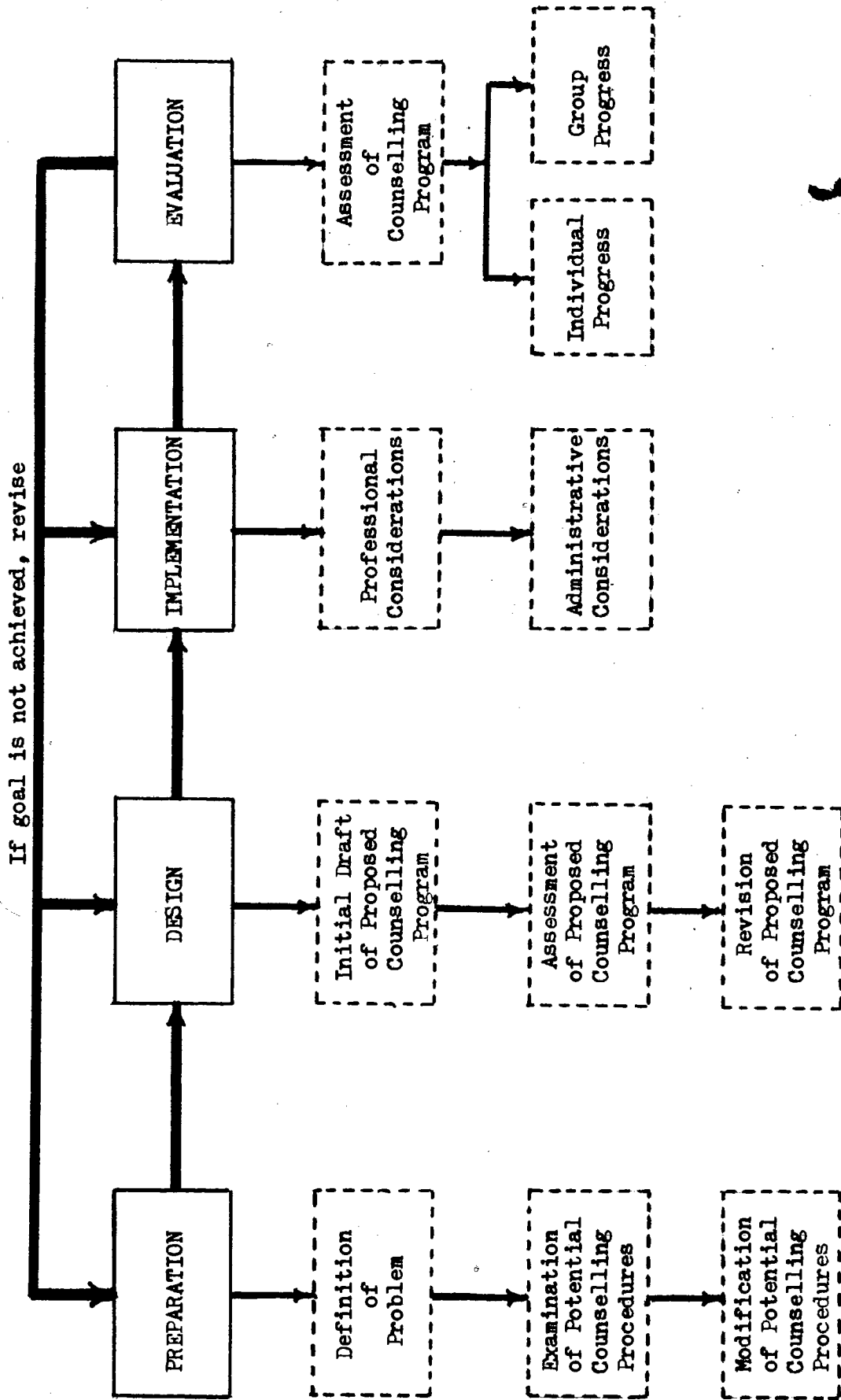
FIGURE 2. COURSES OF ACTION DICTATED BY EVALUATION OF RESULTS



(Popham & Baker, 1970, p. 17)

Application of the general principles of the goal-referenced instructional model to the development of instructional counselling curriculum has the potential to equip the developer of such curriculum with a means to design effective and practical instructional counselling programs for the treatment of a variety of problems; problems such as test-related anxiety. Therefore, in the discussion to follow, a goal-referenced developmental model (see Figure 3) is presented as a viable means for developing instructional counselling curricula.

FIGURE 3. A GOAL-REFERENCED DEVELOPMENTAL MODEL



The goal-referenced developmental model is a scheme featuring four stages - preparation, design, implementation, evaluation - each of which involves a number of distinct operations. Details of each of these operations are outlined in the discussion to follow.

The preparation stage of the goal-referenced developmental model involves: (1) defining the problem from the point of view of both the learner and society and in doing so makes a statement as to the goal(s) of the instructional counselling program to be developed; (2) reviewing relevant theoretical and empirical research literature as a means of securing potential therapeutic counselling procedures; and (3) making modifications to these potential therapeutic counselling procedures which enhance their applicability in a public school counselling setting.

The design stage of the goal-referenced developmental model involves: (1) initial draft of the proposed appropriate counselling procedures, drawing upon resources such as published or unpublished manuscripts that are relevant to the chosen therapeutic counselling technique and the inclusion of instructional procedures that reflect the practice of sound teaching skills - structuring skills, soliciting skills, reacting skills, alerting skills (see Appendix A for details); (2) preliminary assessment of the proposed instructional counselling program through supervised simulated group practice; and (3) revision, if necessary, of the proposed counselling program as a consequence of the results of the simulated practice session(s).

The implementation stage of the goal-referenced developmental model involves: (1) the consideration of professional concerns, specifically the counsellor's qualifications, skills, and ethics with respect to his/her

understanding of the therapeutic counselling technique and a command of the basic teaching skills necessary for instructing in small groups - structuring skills, reacting skills, soliciting skills, and alerting skills; and (2) the consideration of administrative concerns, specifically identifying potential candidates for group counselling, obtaining written permission from parents/guardians, screening the potential candidates, and organizing the qualified candidates into groups.

The evaluation stage of the goal-referenced developmental model involves the setting up of measures that will quantify the effectiveness of the instructional counselling program in terms of individual and group progress. Specifically the process is as follows: (1) administration of pre-counselling assessment measures to quantify the intensity of the client's problem; (2) administration of post-counselling assessment measures that quantify the intensity of the client's problem; (3) statistical analysis of the difference between measured scores across pre- and post-treatment assessment periods to help determine individual and group progress as well as the effectiveness of the counselling program; (4) re-examination of the first three stages if the analyzed results indicate that the goal of the instructional counselling program was not attained; and (5) conduct a series of field tests in order to establish a data base for further evaluation of the validity and the reliability of the instructional counselling program.

The goal-referenced developmental model outlines a process that equips the developer of instructional counselling curriculum with an opportunity to plan and to assess the rationale and procedures of instructional counselling interventions. In the discussion to follow, the

development of instructional counselling curricula for the treatment of debilitating test anxiety in high school settings will be presented within the general framework of this suggested goal-referenced developmental model.

Preparation

Based on personal observations and experiences, as teacher and counselor at the secondary level of education, it appears that at least 10 percent of high school students experience debilitating test-related anxiety to the extent that it impedes their academic performance. Therefore, the identification of counselling techniques and the development of counselling curricula that alleviate this debilitating test-related anxiety in high school students is not only desirable, but imperative.

The problem high test anxious individuals encounter in exam situations may emanate from (1) cognitive concern over performance - "worry"; or (2) disruptive autonomic arousal - "emotionality" (Easterbrook, 1969; Meichenbaum, 1972; Wine, 1971). At present, there is no definitive judgement on which of these two components is of greater consequence as a debilitating force in test-taking situations, or which counselling procedure is the most effective in reducing dysfunctional responses stemming from worry or emotionality. However, the general consensus of researchers is that both worry and emotionality are components of debilitating test anxiety and that two counselling procedures, systematic desensitization and cognitive modification, are effective in the treatment of test anxious clients (Fabick, 1976; Holroyd, 1976; Meichenbaum, 1972).

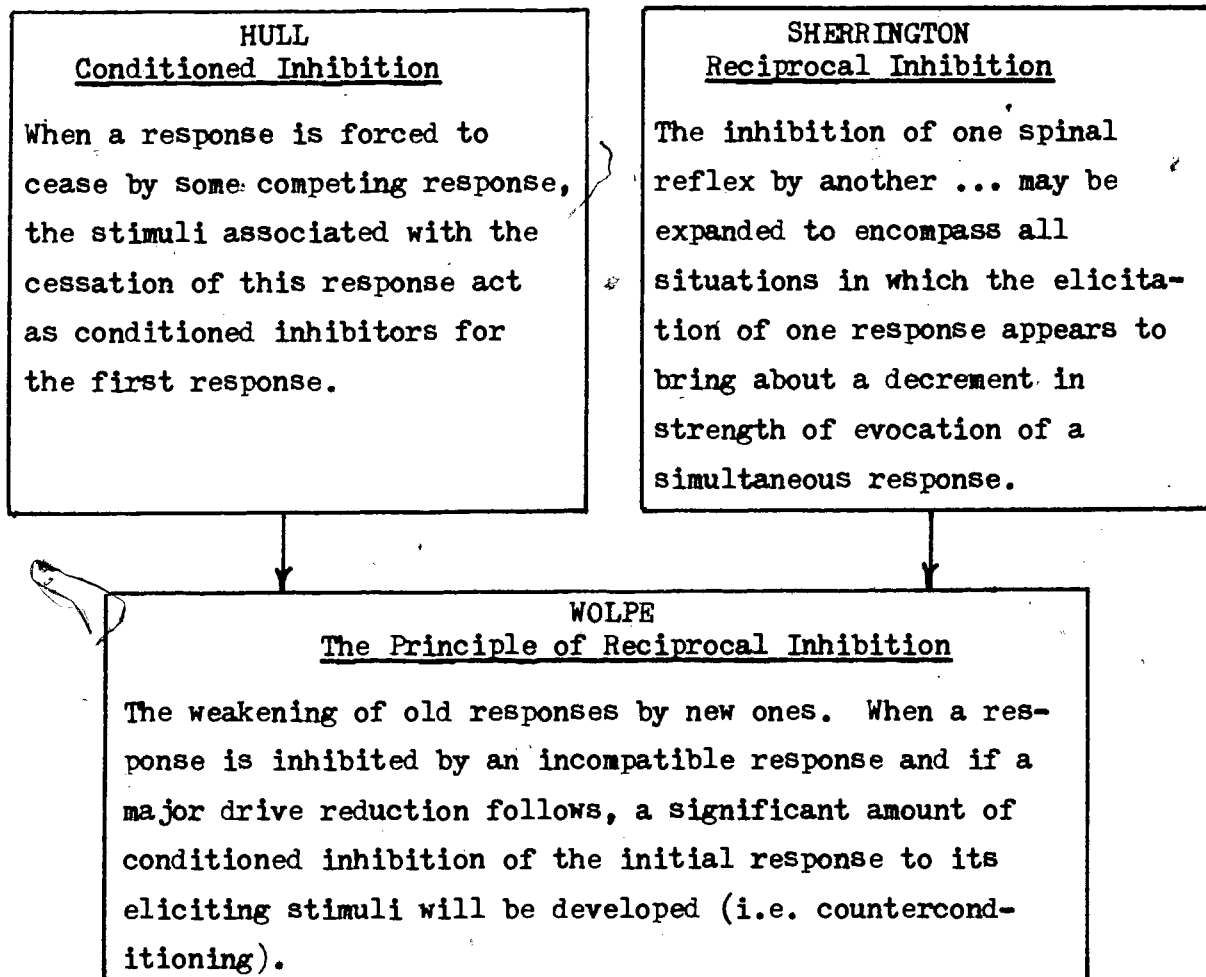
Systematic Desensitization. In the years between 1943 and 1958, Joseph Wolpe formulated a new theory of psychotherapy. This theory had its foundations rooted in the growing body of knowledge of the processes by which change takes place in the behaviour of organisms.

The logic of this theory is based upon the theoretical assumption that only three kinds of processes can bring about lasting changes in an organism's pattern of response to a given stimulus situation - growth, lesions, and learning. Since neurotic behaviour (anxiety is a prominent constituent of neurotic reactions) demonstrably originates in learning, it is expected that its elimination will be a matter of "unlearning" (Wolpe, 1958, p. ix). That is, the elimination of habits judged undesirable in the organism's repertoire can be accomplished by the application of some form of conditioning operation, such as counterconditioning, experimental extinction and so on.

Hull was one of the first researchers to recognize that behaviour is not only put into habit through reinforced practice, but also arrived at through a natural inhibition of responsivity (i.e. fatigue or boredom with repeated trials). Hull named this fatigue-associated state reactive inhibition (Rychlak, 1973, p. 344). Although, this may explain some forms of behaviour, it does not explain all of them. For instance, this form of inhibition is not what seems to be involved in accounting for the fact that Wolpe's cats could not eat and reflect anxious behaviour at the same time. To explain this form of behaviour, Wolpe wedded a construct from the neurologist Sherrington to a concept used by Hull (see Figure 4).

FIGURE 4

THE DEVELOPMENT OF THE PRINCIPLE OF RECIPROCAL INHIBITION



(Rychlak, 1973, p. 344)

Using the principle of reciprocal inhibition, Wolpe reasoned that if he wanted to inhibit anxiety responses in an organism he could do so in the following manner. If while experiencing stimuli that usually give rise to anxiety, the subject can be made to experience a response that inhibits anxiety, the effect will be a reduction in the amount of anxiety elicited by those stimuli. Wolpe named this technique systematic desensitization - an instance of counterconditioning.

Wolpe assumed that in the process of desensitization, anxiety is reduced by reciprocal inhibition at the level of the autonomic nervous system (i.e. it is not possible for one to be relaxed and anxious at the same time). Others, such as Bandura (1969), while retaining the concept of reciprocal inhibition, assume that the inhibition takes place in some part of the brain itself. Nawas, Fishman and Pucel (1970) claim that muscle relaxation when used in connection with desensitization acts as a detractor, shutting out maladaptive anxiety response.

There are several other interpretations of desensitization that have more or less a cognitive basis. London (1964) assumes that the subject is able to learn to discriminate between the actual feared stimulus and the stimulus as imagined. Ellis (1962) claims that self-verbalization of an irrational nature is the primary basis for anxiety and avoidance behaviour. Meanwhile, others (Wilkins 1971) stress the importance of expectations in accounting for the success of desensitization.

The literature reveals that there is no shortage of theoretical accounts of desensitization as alternatives to Wolpe's interpretation, even to the extent that Lang, in a 1969 paper, questions the whole idea of reciprocal inhibition in systematic desensitization and provides experimental evidence for a negative reinforcement extinction process. This lack of consensus as to the theoretical basis for systematic desensitization detracts little from the fact that "systematic desensitization is an effective technique which is applicable to a variety of problems" (Rimm & Masters, 1974, p. 73).

The systematic desensitization procedure consists of several steps. First, the client is trained to systematically relax the various muscle groups. Second, he/she constructs, in consultation with the therapist, a graded hierarchy of anxiety provoking situations or objects from the least to the most anxiety provoking. Finally, the now-relaxed client is presented with each stressful item in the hierarchy until he/she is able to visualize or experience each anxiety provoking item without feeling uncontrollable anxiety.

Just as there are many theories of desensitization, so are there many variations of the technique of systematic desensitization. In contrast to the standard technique, as outlined above, In Vivo desensitization involves the use of real stimuli. In this technique, the therapist usually relies upon interpersonal and other life circumstances as occasions for inhibiting anxiety (i.e. if you have a fear of examinations, write them).

A similar technique called contact desensitization involves a graded hierarchy, but adds a modeling and touch component (i.e. the therapist would write a difficult exam in the presence of the client as a model for the client to emulate).

Another variant of desensitization is called group desensitization. The standard form of desensitization is used with a group of individuals who experience the same degree of a specific phobia, for instance, situational test-related anxiety. In this form of desensitization, the therapist takes an upward step in the hierarchy only when every group member can endure the previous step with controllable anxiety.

Emotive imagery is another form of desensitization. In this treatment, anxiety inhibiting emotive images (i.e. images that arouse feelings of

pride, mirth, adventure, and so forth) are presented to the subject first. Following this, items in the hierarchy (beginning with the weakest items) are presented to the subject.

Automated desensitization is very similar to standard desensitization, but involves the use of the tape recorder. In this process the client listens, often at home, to a series of recorded scene presentations prepared by the therapist with the client's assistance. This procedure allows the client to pace himself/herself in the desensitization process.

Instructional programs in educational settings demand an economy of time and resources. Given a not so uncommon ratio of 300 students to every counsellor, it is often impractical to employ a counselling procedure that involves extended consultation on a one-to-one client-counsellor basis. Therefore, it is necessary to make several modifications to the systematic desensitization procedure as initially outlined by Joseph Wolpe in order to make it an instructional program applicable for high school counsellors.

A review of relevant research (Denney & Rupert, 1977; Emery & Krumboltz, 1967; Goldfried, 1971; Holroyd, 1976; Meichenbaum, 1972; Mitchell & Ingham, 1969) offered several possible modifications that would enhance this procedure as an instructional tool for high school counsellors. Basically, the modifications involve instruction to small groups rather than to individuals; the use of standard anxiety hierarchies rather than individualized anxiety hierarchies; and the employment of an active-coping rationale (i.e. counselees learn a voluntary coping skill involving relaxation and they apply this skill when encountering anxiety-provoking situations outside of treatment) rather than a passive-reciprocal rationale (i.e. that the relaxation training will automatically depress the level

of anxiety and that for these benefits to accrue the counsellee need only to practice the relaxation procedure during and between treatment sessions).

The use of group instruction has been shown to be as effective as individual consultation in the treatment of test anxious students (Mann & Rosenthal, 1969; Paul & Shannon, 1966). Bandura (1965, 1969) found that even individual instruction, when employed within a group, benefits all group members as a result of processes of vicarious learning and modelling.

Anxiety hierarchies are usually constructed by the counsellor in consultation with the client. The client lists relevant anxiety-producing situations which he/she ranks from the least to the most anxiety producing. Such hierarchies, constructed specifically for the individual client, may be modified at any time during the desensitization process. Such individualized procedures are often uneconomical and inappropriate for group instruction. However, if individualized hierarchies, from a small group of relatively homogeneous subjects with the same problem, are similar enough in content to permit their compilation into a single hierarchy, it becomes possible to effectively use a time reducing standard hierarchy (Emery & Krumboltz, 1967).

Goldfried (1971) argued that desensitization should be viewed as a procedure for teaching clients to exert voluntary control over their feelings of anxiety. He suggested that the clients should be told that they are learning a relaxation skill which they can actively use to cope with anxiety; that the counselling sessions are devoted to teaching them how to relax, how to recognize tension as a signal to begin relaxing, and how to practice relaxing away tensions engendered by a set of anxiety-provoking images; and that they should apply their learned relaxation skills

outside the counselling setting to reduce tensions that occur in various life situations. Denney and Rupert (1977) concurred with Goldfried's (1971) findings, that an active rationale in systematic desensitization appeared to be more effective than a passive rationale (Wolpe, 1958) in bringing about persistent changes in students' academic performance subsequent to counselling.

Based on the foregoing arguments and recommendations from empirical research, the classic systematic desensitization technique of Joseph Wolpe can be modified for effective and practical counselling in high school settings through the use of instructional groups, standard hierarchies, and active-coping methodologies.

Cognitive Modification. Albert Ellis has developed rational-emotive therapy (RET) as a treatment for disturbance and maladjustment in human beings. Basically this school of therapy emphasizes the "here" and "now" and man's logical capabilities to overcome his emotional difficulties. The foundations of this therapy can be explained by looking at a view of what man is. These views, according to Ellis, are as follows: (1) Man is born with the potential to be rational and logical and/or conversely, to be irrational and illogical; (2) Man is dominated by the principle of reason and emotion to the extent that they are virtually one and the same; (3) Man is not exclusively the product of biosocial learning; (4) Man is what he thinks he is as he creates his own image in terms of signs, symbols, and language; (5) Man's psychopathological behaviour is illogical and irrational when he associates "This is bad" with things which really are not; and (6) Man can overcome most of his mental or emotional disturbance

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and in turn can change his maladaptive behaviour if he learns to maximize his rational thinking and minimize his irrational thinking.

Ellis, using these basic principles, developed a therapeutic treatment aimed at teaching the client how to synthesize his cognitive and emotional facets of existence. He writes, " ... the psychotherapist's main goals should be those of demonstrating to clients that their self-verbalizations have been and still are the prime source of their emotional disturbance" (Walsh, 1975, p. 340).

Therefore, in his effort to attain this goal, the therapist should divide the course of treatment into three modes, each of which comprises a set of techniques: cognitive, emotive and behaviouristic (Belkin, 1975). The characteristics of these techniques are as follows. In the cognitive mode, the client is taught how to find his/her should, ought and must. He/she is instructed on how to separate his/her rational and irrational beliefs. In addition, he/she is taught how to use the logicoempirical method of science in relation to his/her own problems.

RET teaches clients the A-B-C's of personality formation and disturbance creation. Thus, it shows people that their emotional Consequences (at point C) do not directly stem from the Activating Events (at point A) in their lives, but from their Belief Systems (at point B) about these Activating Events. Their Belief Systems, when they feel disturbed, consist of, first, a set of empirically-based rational Beliefs (rB's) ... To make themselves feel inappropriately or neurotically, they add the nonempirically based, irrational Beliefs (iB's) ... Then they feel anxious, depressed, or worthless.

In RET, the therapist or teacher shows people how to vigorously challenge, question, and Dispute (at point D) their irrational Beliefs. (Ellis, 1972, p. 19)

Finally, the client learns how to accept reality. In the emotive approach, the therapist employs a variety of means of dramatizing truths and falsehoods. Some of these means are role-playing, modelling, humor, unconditional acceptance and exhortation. In the behaviouristic technique, the therapist employs behaviouristic methods to help the client change his/her dysfunctional symptoms. The usual method employed here is the homework assignment, which is an assignment aimed at encouraging the client to take a risk.

Ellis' theory of personality provides the basis for cognitive modification techniques. The view is that emotional disturbances (e.g. test anxiety) are more the result of dysfunctional self-verbalizations (e.g. illogical thoughts or ideas, such as "I'm no good at tests, I can't do this.") than of external stimuli (e.g. the test itself). Given this assumption, the central task of the counsellor is one of directly altering covert cognitive statements so as to bring about a change in overt responding or performance. The assumption here is that if cognition and emotion are interrelated processes and that if one can change one's thinking (i.e. self-talk or internalized statements), one can directly effect reductions in dysfunctional emotional arousal.

Recent cognitive researchers and therapists (Holroyd, 1976; Meichenbaum, 1972) have focussed more on the client's thinking style as revealed by his/her self-statements, than on specific irrational beliefs.

This approach differs slightly from Ellis' focus on irrational beliefs in that the client is urged to recognize his particular thinking style and make changes to it instead of being urged to accept a common (rational) belief system. The recognition of the factors which maintain an individual's test anxiety is necessary to the change process. Once the individual notices his characteristic anxiety pattern emerging he can actively

counter it. He learns to emit behaviours and coping self-statements which are incompatible with those which previously characterized him. (Leal, 1979, p. 18)

In this extended cognitive model, the counsellee learns to view the signs of anxiety as facilitating, in that he/she is alerted (through the awareness or the recognition of negative self-statements) that it is time to respond with coping mechanisms (i.e. positive self-statements). Such coping strategies can prevent students, who use anxiety signs as cues to panic, from becoming immobilized.

Support for this focus on anxiety engendering self-statements comes from a variety of empirical sources. Liebert and Morris (1967) investigated the relationship between worry (cognitive component) and emotionality (autonomic arousal) factors of test anxiety in relation to performance expectancy. The findings indicate that emotionality was stable across expectancy levels, but there was an inverse relationship between worry and performance expectancy. Doctor and Altma (1969) concluded that: emotional level decreased significantly following the completion of an exam regardless of initial anxiety or expectancy level; worry correlated more with success expectancy than did emotionality, but there was a differential decrease in worry following exams, with high worry subjects decreasing significantly in post-assessments and low worries remaining relatively stable on measures pre- and post exams. Wine (1971) concluded that:

Emotional arousal appears to bear no consistent relationship to performance on intellectual or cognitive tasks while worry is consistently and negatively related to performance ... The worry component seems closely related to an attentional interpretation of test anxiety, which proposes that the adverse effects of test anxiety are due to attention being divided between self and the task. (pp. 99-100)

The cognitive modification procedure (Meichenbaum, 1972) consists of several steps administered repetively over a number of counselling sessions. These procedures are: (1) recognition of emotional arousal as a cue for coping with, rather than submitting to, the anxiety provoking stimulus (test-taking); (2) recognition of the accompanying cognitive responses that contribute to test anxiety (anxiety engendering thoughts and self-statements); and (3) construction and practice of appropriate cognitive responses as a technique for reducing test anxiety (to emit incompatible self-statements designed to facilitate task attending in stressful situations).

The cognitive modification group treatment procedure is complete when each counsellee is able to demonstrate, to the satisfaction of the group members, the effective use of coping self-statements during a simulated two minute anxiety provoking situation.

Instructional programs in educational settings demand an economy of time and resources. Given a not so uncommon ratio of 300 students to every counsellor, it is often impractical to employ a counselling procedure that involves extended consultation on a one-to-one client-counsellor basis. Given this reality, cognitive modification is a promising technique for the counselling of test anxious high school students.

The underlying theory, Ellis' rational-emotive therapy or Meichenbaum's cognitive behaviour modification, is applicable to an instructional model of counselling. The theory and practice of cognitive modification can be easily understood by both counsellor (teacher) and counsellee(learner). The counsellor teaches the client how to synthesize the cognitive and emotional facets of his/her existence through effective self-analysis.

It is the "here" and "now" that is of relevance and not the "why" and "then." That is, the counsellor instructs the student in the "how" of dealing with his/her feelings of anxiety in test-related situations. These coping skills can be readily taught in 6 to 7 hours by one counsellor to groups of students using a regular classroom (cf. Holroyd, 1976), making this procedure economical in terms of time and resources. Once the skill of coping is learned, it should be generalized to a variety of situations that are anxiety provoking (e.g. speaking in public, being in crowds, and so on). Thus, from an administrative and instructional point of view, cognitive modification appears to be a viable counselling technique.

Design

On completion of the preparation stage, the systematic desensitization and cognitive modification counselling procedures were structured, using the developmental process as outlined in the design stage of the goal-referenced developmental model, to form separate instructional counselling curriculum manuals for use by high school counsellors in their treatment of test anxious students.

Copies of the original transcripts of the systematic desensitization and cognitive modification manuals produced by Meichenbaum (1972) and Holroyd (1976) were secured to provide a base for the development of counselling manuals specific to the high school context. These unpublished documents, written for use with test anxious college students, were re-written in a vocabulary and structured format appropriate for the high school population. Since it was desirable to field test the new revised manuals in realistic high school counselling sessions, and in such a way as to permit an experimental comparative evaluation (see Leal, 1979),

each procedure was restructured so as to be identical to the other in terms of the number of counselling sessions employed (seven), the duration of each session (one hour) and the time allotted to different instructional counselling activities (e.g. time spent on lecturing, discussing, one-to-one probing, and so forth).

Having completed the initial draft of the counselling manuals, the procedures contained within the manuals were practised in simulated group sessions, in order to ascertain their suitability for counselling test anxious high school students. The leaders of these pilot tests were the counsellors who were later to field test the counselling manuals. One such simulation involved a seminar class of graduate counselling students who were given a brief overview of the counselling programs, followed by an in-depth experience of one session from each program. The sessions were clinically supervised and feedback regarding the use of specific counselling/teaching group skills was extrapolated and incorporated into all sessions in the proposed counselling manuals (see Appendix A).

The revised editions of the counselling manuals were then field tested using a high school population (see Leal, 1979, for details of this study). The purpose of this field test was to assess the efficacy of the counselling techniques in addition to the already analyzed teaching strategies and skills. Upon completion of the field test (see Chapter IV of this thesis for the results), the counselling manuals were once again revised with respect to the number of sessions (reduced from seven to six) and the graphic representation of various activities (a solid line box around counsellor instructions and a broken line box around instructions that may be used verbatim or paraphrased). This updated and finalized version of the instructional

counselling manuals is presented in Chapter III of this thesis.

Implementation

It takes a great deal of skill to effectively implement a group counselling program involving the use of instructional counselling procedures. In order to implement the systematic desensitization and cognitive modification instructional counselling manuals, specific professional and administrative considerations, as outlined in the implementation stage of the goal-referenced developmental model, were attended to.

Professional Considerations. In order to organize and to direct the systematic desensitization and the cognitive modification group counselling programs, the counsellors had as a minimum the following qualifications and skills: (1) a thorough understanding of learning theory, especially how it is applied in the counterconditioning theory of Joseph Wolpe; (2) a basic understanding of personality theory, especially how it is applied in the rational-emotive theory of Albert Ellis; (3) attendance at training sessions on how to administer systematic desensitization or cognitive modification in heterogeneous groups; and (4) achievement of basic teaching skills necessary for instructing in small groups, such as structuring skills, soliciting skills, reacting skills, and alerting skills (see Appendix A).

In addition to having certain qualifications and skills, the counsellors took into account a number of ethical concerns. The counsellors involved in the field test of the systematic desensitization and cognitive modification counselling programs were careful not to present the techniques as cure alls. Specifically, students who participated in the field test of the counselling programs were led to understand that the programs were

designed to help them become more aware of test-related situations that are anxiety provoking and once aware, how to control those anxieties. The counsellors did not promise better tests results, although in many cases this did take place, because the counselling procedures ~~per se~~ were not directly designed to better one's achievement on exams. For those students who were not selected to participate in the counselling programs because of poor study habits or the prevalence of "excessive" general anxieties, the counsellor provided other forms of counselling. It was within the context of such ethical considerations that the counsellors initiated the systematic desensitization and cognitive modification counselling programs for the treatment of test anxious high school students.

Administrative Considerations. Students initially volunteered to participate on the basis of information provided to them by school counsellors and/or classroom teachers. However, the final composition of the counselling group and the instructional counselling program employed (e.g. systematic desensitization or cognitive modification) was determined by pertinent information received at each stage of a systematic screening process. Initially the process involved an interview with the counsellor in order to assess the severity of the student's problem (i.e. test-related anxiety). If the counsellor decided that the student was potential candidate for a counselling group, he/she proceeded to obtain written permission from the parents or guardians for the student to participate. Following this permission, each student was administered several screening instruments in an attempt to further clarify the intensity of his/her test-related anxiety. Each student was screened as to his/her level of anxiety (e.g. Achievement Anxiety Test, Alpert & Haber, 1960), his/her mode of studying

(e.g. Study Habits Checklist, Preston & Botel, 1967), and his/her specificity of anxiety (e.g. Fear Survey Schedule, Wolpe, 1969). On the basis of his/her response to such instruments and to counsellor questioning, the student was deemed to be an appropriate or inappropriate candidate for a group counselling program for the treatment of test anxious students.

Once the participants were selected, they were organized into groups with the common target behaviour to change. With the exception of gender, group homogeneity was required to facilitate individual progress through the counselling process at a rate that was comparable to the group as a whole. However, for the purpose of student comfort there was an attempt to balance the ratio of males to females in the group.

The final selection of candidates signified the completion of the implementation stage as outlined in the goal-referenced model. The developers of the instructional counselling programs now focussed on those procedures that facilitate an evaluation of the effectiveness of the counselling programs via the quantification of individual and group progress.

Evaluation

The evaluation stage of the goal-referenced developmental model involves the use of those procedures and instruments that facilitate the quantification of individual and group progress. This evaluation process equips the developer of counselling curriculum with a quantified measure of the efficacy of the instructional counselling manuals and thus permits the incorporation of alternatives likely to enhance such counselling programs.

Before commencing with the counselling sessions, the counsellors involved in the field test administered several pre-assessment measures. This enabled the counsellors to take a further measure of the intensity of each client's problem and allow for the administration of several post-assessment measures to facilitate the evaluation of the progress of each counselling group, as well as providing information as to the effectiveness of the counselling programs. The pre- and post-assessments used in the field test reported in Chapter IV involved the administration of a measure of academic performance under simulated stress conditions (Raven's Standard Progressive Matrices, Raven, 1956); followed by two measures of state anxiety (Anxiety Differential, Alexander & Husek, 1963 and State-Trait Anxiety Inventory, Spielberger et al, 1969). Statistical analysis of the difference between test scores across pre- and post-treatment assessment periods yielded pertinent information about group progress as well as the effectiveness of the systematic desensitization and cognitive modification counselling programs.

Using these results, the counsellors (curriculum developers) re-assessed the systematic desensitization and cognitive modification programs at each stage of the developmental model (preparation, design, and implementation). Given many more field tests of a similar nature, this process of evaluation provides a means by which to establish the validity and reliability of the systematic desensitization and cognitive modification instructional counselling programs.

Summary

From a theoretical point of view, the systematic desensitization and cognitive modification counselling procedures, as structured within the suggested model for the development of counselling curriculum, appear to be promising counselling programs for the treatment of test anxious high school students. In the chapter to follow, the systematic desensitization and cognitive modification manuals as developed for high school counsellors are presented in full.

CHAPTER III
THE INSTRUCTIONAL COUNSELLING MANUALS

Systematic Desensitization Counselling Manual

This counselling procedure is basically the systematic desensitization therapy of Wolpe, with appropriate modifications for the group setting originally employed by Paul and Shannon (1966) and later by Meichenbaum (1972) and Holroyd (1976). There are six major procedures involved in the use of this technique: (1) exploration of history and current status of symptoms; (2) explanation of rationale and course of counselling sessions; (3) preparation of anxiety hierarchy; (4) instructed relaxation training; (5) desensitization proper - working through the hierarchy under relaxation; and (6) group discussion of the sessions.

The specific schedule for the sessions is as follows:

Session 1. (1 hour)

- 1) Personal introductions and statement of nature, duration and extent of test anxiety for each student (20 minutes)
- 2) Explanation of rationale and course of counselling sessions (5 minutes)
- 3) Training in progressive relaxation (25 minutes)
- 4) Group discussion and homework assignment (10 minutes)

Session 2. (1 hour)

- 1) Discussion of homework assignment and correction of any misconceptions of counselling procedure (10 minutes)
- 2) Construction of hierarchy of anxiety arousing scenes by group discussion (20 minutes)
- 3) Instructed relaxation (20 minutes)

- 4) Group discussion of session (10 minutes)

Sessions 3-5. (1 hour each)

- 1) Group discussion of problem areas including changes in the anxiety hierarchy (10 minutes)
- 2) Group induction of relaxation and presentation of visualization (40 minutes)
- 3) Group discussion of session (10 minutes)

Session 6. (1 hour)

- 1) Review of the rationale and the course of counselling (10 minutes)
- 2) Review of the anxiety hierarchy construction (10 minutes)
- 3) Review of the progressive relaxation technique (10 minutes)
- 4) Group induction of relaxation and presentation of visualization (20 minutes)
- 5) Group discussion of the previous sessions (10 minutes)

Specific procedures for the sessions are as follows:

Session 1. (1 hour)

1. The first counselling session follows the completion of the pre-assessment task. The first 15-20 minutes are spent on introductions and statements by each member of what brought him/her to the counselling setting. The counsellor should facilitate a discussion by each member as to (a) the meaning of the term test anxiety, (b) how long the subject has experienced test anxiety, (c) the degree to which test anxiety interferes with functioning, and (d) whether other social or evaluative situations also arouse anxiety. During this process the counsellor should have the group discuss its problem not only in historical terms, but also in terms

of the specific assessment situation that all students experienced - anxieties experienced during the administration of the screening and pre-assessment tests.

2. It is important that each group member understand and accept the counselling process. To this end, both the theory and the course of counselling should be explained by the counsellor in a brief 5 minute presentation. The counsellor should make it clear that test anxiety is a result of learning, and that the remedy for uncontrolled test anxiety is a learning process. The following rationale is offered as a guideline and may be paraphrased by the counsellor.

The emotional reactions that you experience, such as, fear, despair, and failure, are the result of your previous experiences with people and situations. These reactions often lead to feelings of anxiety or tenseness which manifest themselves in many forms, such as stomachs and necks becoming tense, pounding hearts, sweaty palms, heavy breathing, etc. These anxieties are inappropriate when they interfere with our functioning in a 'normal' manner - doing our best in test situations. Since perceptions of situations occur within ourselves, it is possible for us to work right here in the classroom by having you visualize those test situations that make you excessively anxious.

The specific technique we will be using is one called desensitization. This simply means to make one less sensitive. In the case of this group, we will use this technique to help you become less sensitive to test (evaluative) situations. This technique employs two main procedures - relaxation and counterconditioning - to reduce test anxiety.

(Note: the counsellor should write the terms desensitization, relaxation, and counterconditioning on the blackboard for the students to copy into their notebooks.)

The relaxation procedure is based upon the work of Dr. Jacobsen. Dr. Jacobsen developed a method of inducing relaxation that can be learned very quickly,

and which will allow you to become more deeply relaxed than ever before. The advantage of relaxation is that the muscle systems in your body cannot be both tense and relaxed at the same time. Therefore, once you have learned the relaxation technique, it can be used to counter anxiety, tenseness, and feelings like those you experience in test situations.

(Pause)

Do you have any questions on what I have just said?

(Pause)

The counsellor continues:

Relaxation alone can be used to reduce test anxiety and tension. However, relaxation is often inconvenient to use and in many cases it doesn't permanently overcome anxiety. Therefore, in order to overcome this problem, we combine the relaxation technique with the psychological principle of counterconditioning to actually desensitize test situations so that anxiety no longer occurs.

The way in which we will do this is to determine the test related situations in which you become progressively more anxious, building a hierarchy from the least to the most anxious situations. Then I will teach you the technique of progressive relaxation, and have you practice this. You will see how this works in a few minutes when we actually start training. After you are more relaxed than ever before, we will then start counterconditioning. This will be done by having you repeatedly image the specific situations from the anxiety hierarchy while under relaxation. By having you visualize very briefly, while you are deeply relaxed, the situations that normally arouse anxiety, those situations gradually become desensitized to a point where they no longer make you anxious. We start with those situations that bother you the least, and gradually work up to the test itself. Since each visualization will lower your anxiety to the next, a total anxiety reaction never occurs.

These procedures have been used on many different types of anxiety related problems, including students with test anxiety, with excellent results. Most of these procedures will become clearer after we get into them. Do you have any questions before we continue?

(Note: the counsellor should quiz the students as to the clarity of the

purpose - refer to the terms as outlined on the blackboard.)

3. Training in progressive relaxation is a most important procedure and one that should be mastered. It should be explained to the students that this technique will take some 25 minutes at first, but as they learn, the time for inducing deep relaxation will be shortened. Training begins by having the student systematically tense his/her gross-muscle systems, holding them tense until the counsellor says "relax" at which time the student lets go immediately. If the muscles are first tensed, they will relax more deeply when they are released. The counsellor should also explain that he/she wants the student to focus all his/her attention on each muscle system as he/she works through the various groups. This is so that after practice he/she will not have to tense the muscles first in order to achieve deep relaxation.

Having completed the initial explanation of the relaxation procedure, the counsellor should dim the lights and instruct the students to close their eyes. If they are in chairs, they should sit so their bodies are entirely supported by their chairs. Legs should be extended, head resting on the back of the chair, and arms resting on the arms of the chair. No part of the body should require the use of muscles for support. If suitable chairs are not available, have the students lie on their back on the floor. Once the students are in a comfortable position, have them close their eyes to minimize external stimulation. The scene is now set for instructed relaxation.

a) The counsellor should instruct the students to:

Make a fist with your dominant hand (usually right).
Make a fist and tense the muscles of your (right) hand and forearm; tense until it trembles. Feel the muscles pull across your fingers and the lower part of your forearm.

The counsellor should have the student hold this position for five to seven seconds, then say, "relax", instructing him/her to just let his/her hand go:

Pay attention to the muscles of your (right) hand and forearm as they relax. Note how those muscles feel as relaxation flows through them. (20-30 seconds).

The counsellor continues:

Again, tense the muscles of your (right) hand and forearm. Pay attention to the muscles involved (5-7 seconds). Alright, relax; attend only to those muscles, and note how they feel as the relaxation takes place, becoming more and more relaxed, more relaxed than ever before. Each time we do this you will relax even more until your arm and hand are completely relaxed with no tension at all, warm and relaxed.

The counsellor should continue until all students report that their (right) hand and forearm are completely relaxed with no tension at all (usually 2-4 times is sufficient). Once this completed, the counsellor proceeds to the next muscle group.

b) The counsellor should instruct the students to:

Tense their (right or left depending on dominance) biceps, leaving their hand and forearm on the chair.

The counsellor should remember to give all instructions in a "hypnotic monotone", as well as watching for physical changes that may occur within each student. Once the students have tensed their biceps, proceed in the same manner as above, using the (right) hand as a reference point. That is, move on when each student reports his/her biceps feel as completely relaxed as his/her hand and forearm.

The counsellor should proceed to other gross-muscle groups (listed below) in the same manner, with the same verbalization. For example:

Note how these muscles feel as they relax; feel the relaxation and warmth flow through these muscles; pay attention to these muscles so that later you can relax them again.

Always use the preceding group as a reference for moving on.

- c) Nondominant (left) hand and forearm - feel muscles over knuckles and lower part of arm.
- d) Nondominant (left) biceps.
- e) Frown hard, tensing muscles of forehead and top of head (these muscles often "tingle" as they relax).
- f) Wrinkle nose, feeling muscles across top of cheeks and upper lip.
- g) Draw corners of mouth back, feeling jaw muscles and cheeks.
- h) Tighten chin and throat muscles, feeling two muscles in front of throat.
- i) Tighten chest muscles and muscles across back - feel muscles pull below shoulder blades.
- j) Tighten abdominal muscles - make abdomen hard.
- k) Tighten muscles of right upper leg - feel one muscle on top and two on the bottom of the upper leg.
- l) Tighten right calf - feel muscles on bottom of right calf.
- m) Push down with toes and arch right foot - feel pressure as if something were pushing up under the arch.
- n) Left upper leg.
- o) Left calf.
- p) Left foot.

For most muscle groups, two presentations will suffice. The counsellor proceeds to the next muscle group when the preceding group is reported completely tension-free, proceeding at the pace of the "slowest" student

in the group. Since talking during this phase is to be kept at a minimum, questions by the group counsellor are phrased in the negative, with the student's answers by hand signals, for example:

If your abdominal muscles are not as relaxed as your chest muscles, signal by raising your right hand.

Should a muscle group of any student not respond after four trails, move on and return to it later.

Although the word "hypnosis" is not to be used, progressive relaxation, properly executed, does seem to resemble a light hypnotic-trance state, with the student more susceptible to suggestion. Relaxation may be further deepened by repetition of suggestions of warmth, relaxation, etc. in conjunction with deep breathing that is synchronized with the tensing and relaxing of gross-muscle groups.

In bringing the students back to "normal", the numerical method of trance termination should be used. For example:

I'm going to count from one to four. On the count of one, start moving your legs; two, your fingers and hands; three, your head; and four, open your eyes and sit up. One - move your legs; two - now your fingers and hands; three - move your head around; four - open your eyes and sit up.

Always check to see that each student feels well, alert, etc. before they leave.

4. The counsellor, having completed the instructional part of the session, elicits members' comments on the events of the hour. All happenings and incidences, if questioned, should be interpreted at this time. The counsellor then outlines the homework assignment. The assignment consists of each group member practicing relaxation twice a day until the next session. He/she should not work at it more than 15 minutes at a time,

and should not practice twice within any three-hour period. He/she should also practice alone. Relaxation may be used to get to sleep if practiced while horizontal; if the student does not wish to sleep, he/she should practice sitting up. Before the students leave the session, the counsellor should give each group member a copy of the relaxation instructions, and ask them to keep a record of the frequency and duration of their practice sessions.


Session 2. (1 hour)

1. The counsellor should use the first few minutes of this session to put the members at ease, to answer questions that have arisen, and to briefly repeat the rationale for the counselling procedures. (See Session 1, section 2, on page 30 of this manual.) Once this is completed, the session can turn to a discussion of each student's homework assignment. The counsellor should give positive reinforcement to the students for practicing and monitoring the relaxation technique, but he/she should not be too effusive.

2. Having made certain that each member of the group is at ease, the counsellor now turns to one of the most important aspects of this counselling technique - construction of the test anxiety hierarchy. The object is to determine situations related to test taking which run from very slight, controllable amounts of anxiety to the most extreme anxiety attendant upon the actual taking of an exam. It is not necessary to determine every instance, since generalization from one instance to another will bridge the gap. It is necessary to determine situations close enough together to allow generalization to occur.

The following temporal hierarchy (Adapted from Holroyd 1976) should be used to form the basic framework, thus reducing the time involved to develop the group's hierarchy. The (0) item should be nonanxious and used to test imagery. Since this temporal hierarchy lists general situations related to test anxieties, the counsellor should get specifics that allow each student to include the unique aspects of his/her own situational experiences. All items should be geared to the most anxious member. Most hierarchies are not shorter than eight items, or longer than 20 items.

Temporal Hierarchy

- (0) Lying in bed in a room just before going to sleep (imagine details of room - furniture, curtains, etc.).
 - (1) Studying material for a unit test (one week before test).
 - (2) Discussing approaching test with friends a week before it is given (in class).
 - (3) Listening to the teacher describe the test a week before it is given (in class).
 - (4) Remembering reactions to a previous test.
 - (5) Studying for the test the night before the test (in room).
 - (6) Reviewing study materials the morning before the test.
 - (7) Activities just prior to leaving to taking test (eating, getting dressed, etc.).
 - (8) Walking over to the classroom on the day of the test.
 - (9) Entering the room on the day of the test.
 - (10) Waiting for the test to be handed out (other students nervously talking, etc.).
 - (11) Reading the first question on a test (final).
- 

- (12) Seeing that the test is longer than expected.
- (13) Seeing a question that you can't answer.
- (14) Seeing questions on the final test about material you didn't study.

As the group works through the guide items above, the counsellor should ask the group members to indicate when they first notice feelings of tenseness and anxiety. This will help to determine if some items should be excluded and others included. The counsellor should write down the specifics associated with each item, so that he/she can better control imagery during presentation in future sessions.

3. Once the hierarchy is constructed, the group moves on to instructed relaxation. Once again the counsellor should briefly explain the relaxation procedure (See Session 1, section 3, on page 32 of this manual). The counsellor should dim the lights and instruct the students to close their eyes. If they are in chairs, they should sit so their bodies are entirely supported by their chairs. Legs should be extended, head resting on the back of the chair, and arms resting on the arms of the chair. No part of the body should require the use of muscles for support. If suitable chairs are not available, have the students lie on their back on the floor. Once the students are in a comfortable position, have them close their eyes to minimize external stimulation. The scene is now set for instructed relaxation. For details see Session 1, section 3 a-p, on pages 33-34 of this manual.

The counsellor, having worked through the progressive relaxation technique, should now proceed to test each student's imagery. This is in preparation for desensitization proper that is to be conducted in Sessions

3-6. The counsellor can test the student's imagery by asking him/her to visualize item (0):

Now visualize yourself lying in bed in your room just before going to sleep. Describe what you see. Do you see it clearly? Do you see color? Do you feel as if you were there? Hold that image (the counsellor, using a stop watch, has the students hold the image for 10 seconds). All right, now stop visualizing that and go on to relaxing (the counsellor allows the students to relax for 1 minute).

Some students may report clear, distinct images, as if they were watching a movie; this is fine, but not necessary. The minimum requirement is that their visualizations be as clear as a vivid memory. Describing these visualizations as a dream is often helpful. With practice, images will usually become clearer. It is also important that the student can start and stop an image on request, and this should be determined. This is essential if the group is to be able to work systematically through the hierarchy. If difficulties arise in any of these areas, present a few more common, nonanxious images, describing for the student just what he/she should experience. For example, entering the room for a counselling session. It is important that the student visualize situations as if he/she were there - not watching himself/herself.

4. The counsellor, having completed the instructional part of the session, elicits members' comments on the events of the hour. All happenings and incidences, if questioned, should be interpreted at this time. The counsellor then outlines the homework assignment. The assignment consists of three parts. Part one consists of each group member practicing relaxation twice a day until the next session. He/she should not work at it more than 15 minutes at a time, and should not practice twice within any

three-hour period. He/she should also practice alone. They should continue to record the frequency and duration of their practice sessions. Part two, of the assignment, involves each member revising the list of hierarchy items constructed during this session. Finally, part three of the homework assignment involves imagery practice. Each student should practice imagining non-anxiety provoking images; as previously conducted in the latter part of section 3 of this session. The images should be completely different from the items on the anxiety hierarchy constructed during this session. The students should be reminded that it is important to do the homework assignments and that these assignments will be reviewed at the beginning of Session 3.

Sessions 3-5. (1 hour each)

1. The counsellor should use the first few minutes of this session to put the members at ease, to answer questions that have arisen, and to briefly repeat the rationale for the counselling procedures (See Session 1, section 2, on page 30 of this manual). Once this is completed, the session can turn to a discussion of each student's homework assignment - practice of relaxation technique, review of anxiety hierarchy, and discussion of imagery practice. Any changes in the anxiety hierarchy should be made at this time. Once again the counsellor should give positive reinforcement to the students for completing their homework assignments, but he/she should not be too effusive. Having made certain that each member of the group is at ease, the counsellor now turns to the employment of desensitization proper - working through the hierarchy under relaxation.

2. By the third session, if the student has been practicing well, relaxation may be induced by merely focusing attention on the muscle

groups, and instructing the student to "concentrate on muscles, becoming relaxed, warm, etc.". However, if any student has difficulty following straight suggestions, return to the use of tension-release (See Session 1, section 3, on page 32 of this manual).

Before inducing relaxation in the third session, the counsellor should explain exactly what he/she will be asking the student to do, since his/her verbalizations are to be kept at a minimum. Tell him/her that if at any time during the session he/she feels any tension or nervousness whatever, to signal by raising his/her (right) index finger. This is important and should be made clear from the beginning.

After relaxation is induced, presentation of images begin with item (1):

Now I want you to visualize yourself, sitting alone in your room studying, two weeks before a unit test (Hold image for 10 seconds). Stop visualizing the scene and go on relaxing (Relax for 30 seconds).

Ask the students to indicate if they felt any tension or had trouble starting and stopping the image on request. Then repeat item (1) again,

One more time, visualize yourself, two weeks before your unit test, sitting alone in your room, studying (10 seconds). Stop visualizing that, and go on relaxing - completely relaxed, no tension anywhere in your body, warm and relaxed (Relax for 30 seconds).

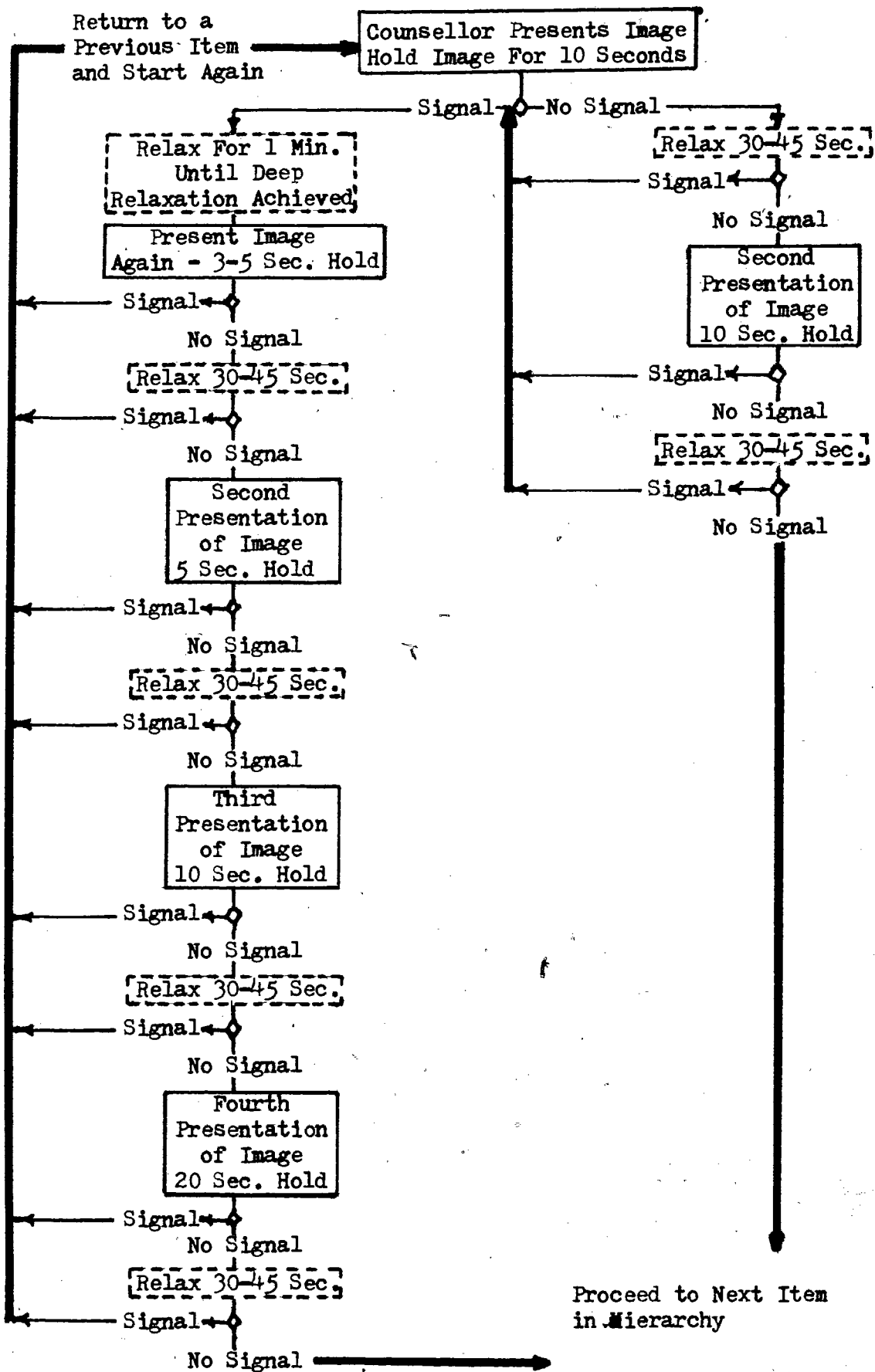
The counsellor should follow the above paradigm throughout the hierarchy if no student becomes anxious; i.e., present each item in the hierarchy, specifying all major aspects of the image. Allow 10 seconds to elapse after each presentation, then instruct the group to "stop visualizing that, and go on relaxing". Continue suggestions of warmth, relaxation,

lack of tension, heaviness, etc. for 30 to 45 seconds, and again present the image. Present each item in the hierarchy at least twice. If no student signals anxiety, and the counsellor does not detect anxiety during two 10-second presentation of any item, move on to the next item in the hierarchy.

If, on the other hand, any student signals anxiety or the counsellor detects anxiety in a student, immediately instruct the group to "stop visualizing that, and go on relaxing". Then continue with suggestions of relaxation (at least 1 minute) until the student reports as deep a relaxation as before. The counsellor should then inform the group that the presentation will be shortened, so that anxiety will not occur. Then, present the same item again for a period of only 3 to 5 seconds. Note: If anxiety is still aroused, drop back to a 10-second presentation of the previous item in the hierarchy. If, however, the 3 to 5 second presentation does not arouse anxiety, give 30 to 45 seconds of relaxation suggestions, and present the same item again for 5 seconds, then 10 seconds, then 20 seconds. If the item can be presented for 20 seconds, move on to the next item in the hierarchy.

An outline of these procedures can be found in Figure 5. It is very important that the counsellor be very sensitive to the needs of the students. He/she must know when to go back, when to construct new items, and when to move up on the hierarchy. However, the above guides should handle most situations. Some items may require as many as 8 to 12 presentations of differing time intervals, with lower level items interspersed. Most items will be handled successfully in 2 to 4 presentations.

FIGURE 5. SYSTEMATIC DESENSITIZATION PROCEDURE



Never end a session with a presentation that arouses anxiety. Approximately 5 to 10 minutes before the end of a session, either stop with a successful item, or go back to the previous item in the hierarchy. Each desensitization session subsequent to the third session should begin with a presentation of all new items covered in the previous session. This will avoid the necessity of "make up" sessions should any student be unable to attend a single meeting.

All students should easily complete the hierarchy in the 5 sessions. However, if any student does not complete the hierarchy, the counsellor should take note of the number of items still to be covered, so that this fact may be taken into account in evaluation. The counsellor should be sure to keep a record for his/her group, so that the proper items are covered.

Session 6. (1 hour)

1. The counsellor should begin this session with a brief review of the rationale. This should be followed by an overview of the counselling procedure to date. The students should be reminded that this is the last session and their final opportunity to deal with anxieties relating to test taking.

2. The counsellor, with the aid of the group members, reviews the construction of the anxiety hierarchy. As the group reviews, the counsellor should check to see if all the students have completed all the items in the hierarchy. Note: the counsellor should have the items of the hierarchy on a pre-prepared overhead transparency.

3. Once the construction of the anxiety hierarchy has been reviewed, the counsellor should review the progressive relaxation technique and its

rationale. The students, at this point in time, should be able to induce relaxation by thinking about a particular muscle group.

4. The counsellor now proceeds to desensitization proper. The group should be able to work through the entire hierarchy in about 20 minutes. This is the last opportunity, before the post-assessment, for each student as a member of the group to complete all items in the hierarchy.

5. The last 10 minutes can be used to sum up the counselling sessions by having each member share with the group their answer to the following question:

How have these sessions, that you have just completed here, been helpful in reducing test anxiety?

At the completion of the sharing time, the group should be told where and when to report for the post-testing.

Cognitive Modification Counselling Manual

This counselling procedure is designed to facilitate the group members (1) recognition of emotional arousal as a cue for coping with rather than submitting to the anxiety provoking stimulus - test taking; (2) recognition of the accompanying inappropriate cognitive responses that contribute to their test anxiety - anxiety engendering thoughts and self-statements; and (3) construction and practice of appropriate cognitive responses as a technique for reducing their test anxiety - to emit incompatible self-statements designed to facilitate task attending in stressful situations.

The specific schedule for the sessions is as follows:

Session 1. (1 hour)

- 1) Personal introductions and statement of nature, duration, and extent of test anxiety for each student (20 minutes)

- 2) Explanation of rationale and course of counselling sessions
(5 minutes)
- 3) Instructed analysis of thoughts during test situations
(25 minutes)
- 4) Group discussion and homework assignment (10 minutes)

Session 2. (1 hour)

- 1) Discussion of homework assignment and correction of any misconceptions of counselling procedure (10 minutes)
- 2) Construction of a list of anxiety arousing self-statements by group discussion (20 minutes)
- 3) Examples of and instruction in the use of alternate self-statements (20 minutes)
- 4) Group discussion of session (10 minutes)

Sessions 3-5. (1 hour each)

- 1) Group discussion of problem areas including additional anxiety arousing self-statements (10 minutes)
- 2) Individual student-counsellor interaction: training in the use of alternate self-statements (40 minutes)
- 3) Group discussion of session (10 minutes)

Session 6. (1 hour)

- 1) Review of the rationale and the course of counselling (10 minutes)
- 2) Review of the anxiety arousing self-statements (10 minutes)
- 3) Review of the anxiety coping self-statements (10 minutes)
- 4) Individual student-counsellor interaction: training in the use of alternate self-statements (20 minutes)
- 5) Group discussion of the previous sessions (10 minutes)

Specific Procedures for the sessions are as follows:

Session 1. (1 hour)

1. The first counselling session follows the completion of the pre-assessment tasks. The first 15-20 minutes are spent on introductions and statements by each member of what brought him/her to the counselling setting. The counsellor should facilitate a discussion by each member as to (a) the meaning of the term test anxiety, (b) how long the subject has experienced test anxiety, (c) the degree to which test anxiety interferes with functioning, and (d) whether other social or evaluative situations also arouse anxiety. During this process the counsellor should have the group discuss its problem not only in historical terms, but also in terms of the specific assessment situation that all students experienced - anxieties experienced during the administration of the screening and preassessment tests.

2. It is important that each group member understand and accept the counselling process. To this end, both the theory and the course of counselling should be explained by the counsellor in a brief 5 minute presentation. This rationale and procedure for counselling is offered by the counsellor only after the students have provided several instances of the effects of anxiety-engendering thoughts on their behaviours. The following rationale is offered as a guideline and may be paraphrased by the counsellor.

As I listen to you discuss your test anxieties I am struck by some of the similarities in how each of you is feeling and what you are thinking. On the one hand, there are reports of quite a bit of tenseness and anxiety in test situations and in evaluative situations. This seems to take many forms, such as stomachs and necks becoming tense, pounding hearts, sweaty palms, heavy breathing, etc.

(Note: the counsellor should use the specific examples offered by group members; these examples should be recorded in a notebook by each student.)

Having noted the examples, the counsellor continues:

At the same time, and correct me if I'm wrong, several of you described how difficult it was for you to focus attention on the task before you, the exam. Somehow, your attention wandered away from what you had to do, such as studying or taking the exam, to something irrelevant.

(Note: once again the counsellor should use examples offered by group members.)

Your thoughts and self-statements seemed to get in the way of what you had to do. Your thoughts about disasters, and how awful the consequences would be if you didn't do well, got in the way.

(Pause)

Have I heard you correctly?

At this point, as a result of student uncertainty as to the meaning of the counsellor's remarks, the counsellor may decide to have the group go back to descriptions of test anxieties: specifically, to the test assessment situation that each member participated in. What kinds of thoughts and feelings, what self-statements did they make in that situation?

Having done this, the counsellor continues:

So if you think back to what was going on the last time anxiety interfered with studying or test taking you'll find that your test anxiety was made up of two parts: first, heightened emotionality and tenseness, and secondly, worrying or thinking processes which caused you to shift your attention to yourselves and away from the task.

(Note: the counsellor should write these two parts of test anxiety on the blackboard for the students to copy into their notebooks.) The counsellor continues:

The interesting thing is that the second of these processes, the runaway and self-centered thinking, turns out to be far and away the most important of the two. This is because it is not arousal in itself that interfered with your performance on tests, but the thoughts and preoccupations that interfere with your concentration.

(Note: the counsellor should check to see if this is clear for all students in the group.)

For example, if you have learned to think, 'I'm stupid', 'I'm going to fail', 'I've never been good in Math', or 'This problem is too difficult for me', when you reach a difficult question or problem on a test, it's hardly surprising that you feel anxious. First, the thought of failing and the consequences of failing will naturally make you anxious; and secondly, while you are thinking about failing, what that will lead to, or past difficulties and how stupid you are, you can hardly concentrate on the test very well.

(Note: the counsellor should write these two points on the blackboard for the students to copy into their notebooks.)

As a result, these habitual thoughts not only generate anxiety, but get in the way of working productively on the test. Does that make sense?

(Note: the counsellor should encourage the members of the group to paraphrase what has just been said.) The counsellor continues:

Just about everyone feels anxious and aroused when they go into a test situation. This is a normal feeling. Some people, however, manage to make the arousal stimulate and energize their performance by controlling their thoughts and attention. During the group sessions over the next six weeks we are going to learn how to control our thinking processes and attention in this way. The purpose of this group is not to remove anxiety, but to control it.

(Note: the counsellor should repeat the purpose of the group and then have the students note the purpose in their notebooks.)

The control of these disruptive thinking processes comes about by first becoming aware of when we are producing negative self-statements 'I'm not that bright', or catastrophizing 'Boy, when my father sees the results of this test I'll be grounded', or being task-irrelevant 'How do they expect me to remember all those facts', etc. Recognizing this and catching ourselves will be a step forward in changing. This recognition will also act as a reminder, a cue, for us to produce different thoughts and self-instructions and incompatible behaviour. We will learn how to control our thinking processes during these meetings. Once these anxiety arousing thoughts are under control you will find that the anxiety experienced during exams or studying can be readily and easily controlled.

(Pause)

Do you have any questions?

(Note: the counsellor should outline the above procedure on the blackboard and ask the students to copy it into their notebooks.) The counsellor should answer any queries by referring back to the general statement of the rationale. He/she should employ examples offered by students that illustrate the need to control tenseness, arousal, thinking processes and attentional style.

3. The session now turns to an instructed analysis of cognitive and attentional processes during test situations. This exercise is designed to increase each group member's awareness of the crucial role negative self-statements play in their test anxiety. Students, once again, are asked to mentally review their responses to the laboratory testing situation and to the examination or studying situation in which they most recently experienced test anxiety. As group members silently review in detail their reactions to these situations the counsellor encourages the students to perform a situational analysis of their test anxiety.

This exercise is introduced with the instructions:

Alright, the first thing we are going to do is mentally analyze the anxiety that we actually experience with exams. I want you to begin by closing your eyes and imagining that you are about to take the tests that you took earlier for this study.
(Pause)

Now, I want you to begin by recalling your thoughts and feelings immediately prior to taking the tests. Then slowly recall your responses as you see yourself taking the test. Imagine you are watching a movie, but watch the events as they flow by on a mental screen. Think!

(Pause)

What do you find yourself saying to yourself and thinking?

(Pause)

What are you worried about?

(Pause)

At what point does this occur to you?

(Pause)

When do you start feeling anxious?

(Pause)

At this point, the counsellor should ask for responses to each of his/her questions from individual students. This should continue until all the students have had a chance to respond. This discussion, like all others, should be conducted in a random manner rather than in a specific pattern. The reason for this random selection is that anxious people tend to become more anxious as they wait for their turn. Consequently, they do not listen as well as they might to the responses of other group members.

When the group members have gone over in detail their responses to the laboratory testing situation, they are to imagine the last test they took in which anxiety posed a problem. The counsellor should mention some possible exams by name, such as,

Remember that last Math, Science, P.E., English, or Social Studies test that you took. Pick one of them and silently review the sequence of events beginning with your studying for the exam, then the

day before the exam, entering the room to take the exam, receiving the exam, and taking the exam.

Again, the analogy of watching a movie of these events is useful. (Note: the counsellor should make brief notes on the responses of each student to the questions posed.) The counsellor should encourage the students to note their emotional and cognitive responses, noting when they occur and what the associated stimuli are. When this review is completed the counsellor encourages a brief discussion of the group members' experiences, emphasizing the part played by the student's negative self-statements in test anxiety.

4. The counsellor, having completed the instructional part of the session, elicits members' comments on the events of the hour. All happenings and incidences, if questioned, should be interpreted at this time. The counsellor then outlines the homework assignment. The assignment consists of each group member mentally reviewing and recording the evaluative situational events for each day until the next counselling session. The reviewing and recording should be completed at the end of each day. They are to note negative self-statements, when and where they occur and the anxiety producing consequences of these statements. The counsellor asks the members to bring their list of such instances to the next session.

Session 2. (1 hour)

1. The counsellor should use the first few minutes of this session to put the members at ease, to answer questions that have arisen, and to briefly repeat the rationale for the counselling procedures. (See Session 1, section 2, on page 47 of this manual). Once this is completed, the session can turn to a discussion of each student's homework assignment. The counsellor should give positive reinforcement to the students for reviewing

and recording their evaluative situational anxieties, but he/she should not be too effusive. Using their homework examples as a source of data, the students continue to explore the concept of negative self-statements as employed in a number of situations. The counsellor wants the students to become aware of their self-statements within the context of environmental situations; that is, to perform a situational analysis. In what sorts of evaluative situations do test anxious students emit negative self-statements? The counsellor should trace (for each individual) the incidence, timing, frequency, and duration of his/her negative self-statements. Negative self-statements usually have a worry or self-oriented thinking quality, for example:

I must achieve; If I fail, then what?

This "worry component" is usually followed by catastrophizing ideation:

I can't do anything; I'm inferior; I never could do anything.

2. Having discussed the anxiety arousing and distracting thoughts characteristic of each group member, the counsellor now encourages each group member to write a list of the self-statements that occur most frequently and are most debilitating for him/her. Once again, the counsellor encourages each student to include self-statements that are experienced while studying for and actually taking an exam.

The following categories suggest the type of distracting thoughts that are most frequently reported by test anxious individuals. These categories, as developed by Richardson (1973), can be used as an effective means of prompting the students as they attempt to recall negative self-statements.

- a) Worrying about their performance, including how well others are doing as compared with himself/herself. For example: "I'm really going to flub this one," or "Gee, everyone else is on page two and I'm only on page one."
- b) Ruminating too long and fruitlessly over alternative answers or responses. For example, "This one seems too easy, there must be a trick to it."
- c) Being preoccupied with bodily reactions associated with anxiety. For example: "I feel like I'm going to be sick," or "What will I do if I throwup," or "Boy, is it hot in here!"
- d) Ruminating about possible consequences for doing poorly on the test: disapproval, punishment, loss of status or esteem, damage to academic record or job changes. For example: "If I don't pass this I'll never make it to university."
- e) Concentrating on feelings of inadequacy. These may include active self-criticism or self-condemnation, calling yourself "stupid", or considering yourself worthless. For example: "Boy, am I ever dumb, I can't even do Math 10."

After constructing the list, the students report on these self-statements that occur most frequently. Once this is done, the counsellor can begin to take a somewhat more passive role by skillfully asking:

Are you trying to tell us that part of your problem is what you are telling yourself? How is this so?

At this point, the group can try to convince the counsellor as well as other members, and obviously themselves, that the rationale does apply to them. This ploy, of having the group convince the counsellor, should not be used too early. What does too early mean? Well, the group must

first explore the nature of the self-statements and the self-defeating and self-fulfilling prophecy aspect of this style of thinking. Members should have examples of negative self-statements in many evaluative situations.

3. Now, given the students' recognition of their problem, the counsellor begins the instructional phase of this session - instruction in the use of alternate coping self-statements. In order to facilitate this initial instruction, the counsellor provides the group members with an illustrative list of anxiety-coping self-statements. These statements illustrate the type of coping self-instructions that can be useful in coping with each of three phases of exam taking: (a) coping with runaway anxiety or feelings of helplessness when they do occur; (b) confronting and handling the initial stress of the exam; and (c) recognizing and reinforcing the successful use of these coping strategies. Students may wish to select coping self-statements from this list, or preferably to devise their own anxiety reducing and task oriented self-instructions.

Examples of Coping Self-Statements (Holroyd, 1976)

(a) Coping with the feeling of being overwhelmed

Take a deep breath, relax, stop; take your time.

Don't get anxious; just take off a moment and focus my attention on what I have to do.

Don't try to eliminate the anxiety totally; just keep it manageable.

Keep the focus on the present and what it is I have to do.

Lots more to do before I finish. Just take one question at a time.

This is the anxiety that I thought I might feel.

It's a reminder for me to cope.

Slow down a little; don't rush me and get all in a panic ... there's time for most of it.

(b) Confronting and handling the stressor of taking an exam

What is it I have to do? No negative self-statements.

Just think rationally.

Don't worry; worry won't help anything.

Focus on the task; exactly what does the question really ask? It doesn't say this ... or this ... it just asks ...

Just think about what I can do about it. That's better than getting anxious.

Don't look for tricks, just what does it say?

What's the basic question, what's the main point?

I don't want to get lost in detail; stand back and look at the total picture.

I can't get the feel of how to say this ... let me just start writing about it, maybe that'll get me into it.

That's a stupid question. Okay. It's stupid, or I don't get the point. I'll come back to it.

Wonder how many I can miss for a "B" ... I'll figure that up later, just pay attention and finish this up.

(c) Reinforcing self-statements

It's working. I can control how I feel.

Wait until I tell my group about this

I am in control. I made more out of my fear than it

was worth.

My darn ideas; that's the problem. When I control them

I control my fear.

It's getting better each time I use the procedures.

I did it! I did it!

The counsellor should emphasize that becoming aware of anxiety arousing and distracting thoughts and replacing them with anxiety reducing self-instructions such as these is an effective method of anxiety reduction. To this end, the counsellor should work through several examples with the group. For instance:

Example 1

Arousing self-statement.

"Gee, everyone else is on page two and I'm only on page one."

Sequence of Coping self-statements.

- (a) Lots more to do before I finish. Just take one question at a time.
- (b) Don't worry; worry won't help anything.
- (c) It's working. I can control how I feel.

Example 2

Arousing self-statement.

"This one seems too easy, there must be a trick to it."

Sequence of Coping self-statements.

- (a) Don't get anxious; just take off a moment and focus my attention on what I have to do.
- (b) Focus on the task; exactly what does the question really ask? It doesn't say this ... or this... it just asks ...

- (c) My darn ideas; that's the problem. When I control them
I control my fear.

The counsellor, having completed several examples on the blackboard, then asks each group member to write out several more examples of the proper use of self-statements to control anxiety during test situations. At this point, the counsellor should move from member to member offering help where needed. The students should be told that these examples will be used as a basis for student-counsellor interaction in future sessions.

4. The counsellor, having completed the instructional part of the session, elicits members' comments on the events of the hour. All happenings and incidences, if questioned, should be interpreted at this time. The counsellor then outlines the homework assignment. First, each student should, if not already completed, complete the two examples of replacing anxiety arousing thoughts with anxiety reducing self-statements. Secondly, the students are reminded to continue to review and record the evaluative situational events for each day - noting negative self-statements, when and where they occur and the anxiety producing consequences of these statements.

Sessions 3-5. (1 hour)

1. During sessions 3-5 the counsellor spends approximately 10 minutes at the beginning of each session inquiring about the group's observations concerning the emission of additional anxiety arousing self-statements during the week; and how they combatted them. This discussion serves to re-introduce the group to the counselling procedure as well as facilitating the recognition of additional test anxieties to be explored in the second part of the session.

2. The counsellor, having completed this period of re-introduction, then proceeds to spend 35-40 minutes working individually with each student in the group. He/she should devote approximately four minutes to each student. The counsellor's goal during this time period is to identify the student's habitual thinking styles that contribute to his/her anxiety; and to apply leverage to change their cognitive styles. It is during these periods of individual instruction that the counsellor gives the student the opportunity to investigate the self-defeating and self-fulfilling prophecy aspects of their self-statements and behaviours. Initially, then, the counsellor encourages each student to identify:

- a) the content of the disruptive thoughts that dominate the client;
- b) the environmental context within which these thoughts occur; and
- c) the negative behavioural consequences of these thoughts.

As each group member acquires these skills of identifying, the counsellor begins to challenge his/her anxiety engendering thoughts and encourages him/her to employ the techniques for coping with them. The counsellor questions the logic and validity of these statements and encourages each student to practice replacing these disruptive thoughts with alternate self-instructions designed to facilitate task attending. As the counselling session proceeds, each student should become capable of questioning their own distracting thoughts and to devise alternate anxiety coping self-statements.

Note: As the counsellor works with each individual, care must be taken to see that the other members of the group maintain their interest.

This potential problem, one of boredom, can be countered by the counsellor if he/she periodically looks at and redirects the conversation to the other members of the group as he/she works with the student receiving individual instruction. For instance, the counsellor might re-direct from the individual to the group by looking around the group as he/she says:

Well John, you seem to be saying to yourself that you are going to fail the test even before you write it. This is very similar to what Mary (looks directly at Mary) and Bob (looks directly at Bob) have been saying.

The counsellor should allow Mary and Bob to respond if they wish to, but he/she should encourage them to be brief since group discussion is to be kept at a minimum during this time.

It should also be noted here that the counsellor should once again work through the group in a random fashion in an attempt to minimize the anxiety for each member as they wait for their turn for individual instruction. This also helps to keep each member involved since they are not aware of when they will be called upon.

The following procedures and techniques are offered as possible guidelines for the counsellor during the period of individual instruction.

a) The counsellor continually identifies relationships between situational variables (i.e. encountering a difficult question on a test), the student's thoughts (i.e. "I'll never do it, I will fail") and behaviour (i.e. frantic attempts to locate an easy question). The counsellor should emphasize that anxiety engendering thoughts are a crucial modifiable link in this chain. The counsellor should instruct students:

Whenever you find yourself getting upset, ask yourself what sentences are you saying to yourself which cause you to become upset. Start looking for these sentences and thoughts. Often the sentences take

forms such as, 'I'll never ...', 'I'm not bright enough ...', 'This question is impossible ...' Then ask yourself what these thoughts have to do with the task at hand. Focus on what you might be able to recall from your work in class or from your study notes. Once you begin to question and challenge your sentences you will begin to find that they stop coming up again as they did in the past.

The counsellor should continue to go over anxiety arousing situations that the students identify in their "evening review" of each day's events. It is possible to initiate the individual work with each student by inquiring about the results of his/her daily "evening review".

- b) As Ellis has suggested, explain to the students that it is not some stimulus A such as a test that gives rise to their upset or anxiety (which we'll call C), but rather it is B, what they are saying to themselves, that causes C. Another way to put this is that A is the existence of fact or event or behaviour or another person. C is your reaction, usually emotional upset. But A does not cause C; rather it is B, which is your self-verbalization that A is terrible, horrible, etc. that causes C. This explanation should be diagrammed on the blackboard or overhead transparency and copied down by the students.
- c) Convey to the students that what maintains and perpetuates emotional disturbances are internal verbalizations and irrational ideas and thoughts. If we don't question them, the phrases and sentences become habitual. They become thoughts that influence our emotions and behaviour.
- d) Point out to the students that their evaluative self-statements often represent quick, illogical, virtually irrational (unreasonable) judgements. Thus, the students will frequently make the judgement, "This test is too hard for me", after reading one or two questions of a long

test. Insist that they question these judgements, noting that this is a habitual response, which can be changed, and not an accurate evaluation.

- e) Focus upon what kind of self-statements are elicited by the emotional arousal the student experiences in evaluative situations. While virtually all students become aroused when faced with a test, only a minority interpret this to mean they are "flustered", "falling apart", or similarly debilitated. Others interpret this to mean that they're "up", "energized", or similarly facilitated in their performance. Encourage the students to suggest and to practice emotional arousal as well as to avoid spending a great deal of the time preoccupied with the specific manifestation of arousal (heart beat, sweating hands, etc.). If they decide that they're "energized" rather than coming apart at the seams they can behave accordingly, that is once they have set out negative and positive statements.
- f) Review with each student the results of his/her daily "evening review" and work on those situations the student identifies as anxiety arousing. These situations can be dramatized and modelled by the counsellor and the student, so that both the individual and other group members can practice coping with anxiety arousing situations. The progression of the simulated situations is to be based upon the four steps of coping, which are: (i) recognizing negative self-statements; (ii) stopping negative self-statements; (iii) emitting positive self-statements; and (iv) administering positive reinforcing self-statements. The simulated practice session could be conducted as follows:

Setting: Counsellor and one student sitting at a table in front of the group.

Counsellor: "Mary, you stated earlier that you felt a great deal of anxiety while writing your Math exam last Tuesday."

Mary: "Yes, I really did feel very anxious."

Counsellor: "At what point during the exam did you feel very (uncontrollably) anxious?"

Mary: "When I first saw how long the exam was."

Counsellor: "Can you remember what you said to yourself at that time?"

Mary: "I said, 'I'll never get through all of this; I don't know that much Math.'"

Counsellor: "Alright Mary, given that situation, what should you do?"

Mary: "I should first of all try to handle, cope, with my feelings by saying to myself something like, 'Don't get anxious; just take a moment off and focus my attention on what I have to do'. Secondly, by confronting and handling the stress, by telling myself to, 'Do one question at a time, don't worry about the length of the exam'. Thirdly, recognizing that I am coping, that I can control my self-statements and my emotions. I could say, 'I am in control, I made more out of my fear than it was worth'."

Counsellor: "Very good Mary! John, what do you think of Mary's response to her feelings of anxiety?"

Later on, as the students become more familiar with the format of dramatization, the counsellor could start the simulated set by giving the situation and having the student work through the four steps of coping - verbalize to the group in a form of stream of conscious thought.

g) Keep in mind that your goal as counsellor is to reduce test anxiety in past and followup assessments and your discussions are to be focused on and related to this criterion. You should raise the following question with individual students, particularly in the last two sessions: "How is what we are learning here helpful in reducing test anxiety?"

3. The counsellor, having completed the instructional part of the session, elicits members' comments on the events of the hour. All happenings and incidences, if questioned, should be interpreted at this time. The counsellor then outlines the homework assignment. First, the students are reminded to continue to review and record the evaluative situational events for each day - noting negative self-statements, when and where they occur and the anxiety producing consequences of these statements. Secondly, the students are reminded to practice, no more than 15 minutes per day, the four steps for coping with test induced anxieties.

The counsellor reminds the students of the time and place for the next session.

Session 6. (1 hour)

1. The counsellor should begin this session with a brief review of the rationale. This should be followed by an overview of the counselling procedure to date. The students should be reminded that this is the last session and their final opportunity to deal with anxieties relating to test taking.

2. The counsellor should list, with the aid of the group, the most prevalent anxiety arousing self-statements previously presented by the group members. These can be written on the board or on an overhead transparency.

3. Once the list has been reviewed by the group, the counsellor can elicit a comparable set of anxiety coping self-statements from the group. Each member should then be instructed to pick one of the anxiety provoking statements and prepare himself/herself to dramatize the situation for the group.

4. Each member of the group will model for the other members the use of alternate self-statements. Each presentation should be of approximately two minutes in duration. Once again the order of the presentations should be on the basis of random selection. At the end of each presentation the members of the group should be encouraged to comment on the effectiveness of the coping self-statements.

5. The last 10 minutes can be used to sum up the counselling sessions by having each member share with the group their answer to the following question:

How have these sessions, that you have just completed here, been helpful in reducing test anxiety?

At the completion of the sharing time, the group should be told where and when to report for the post-testing.

CHAPTER IV

THE FIELD TEST

Even with sound theoretical rationale for developing and implementing the instructional counselling programs as described in the previous chapter, the need for empirical validation of the effectiveness of the two programs - systematic desensitization and cognitive modification - is essential if there is to be any guarantee of accountable counselling practice. To this end, a field test was conducted as the first step in this validation process.

Positive findings for these counselling procedures would be of significance at the secondary level of education in terms of: (1) identifying and remediating test anxiety in high school students; (2) providing high school counsellors with an empirically tested instructional counselling program; (3) providing a methodology by which high school counsellors can measure their effectiveness; and (4) demonstrating a need to incorporate such procedures into counsellor education programs so that counsellors can assist students to improve their ability to cope with stress provoking situations such as test-taking.

Field Test Methods

The field test was conducted at a secondary school in a suburban area of Vancouver B.C. Approximately 750 students in grades 8 to 12 are enrolled in the school. A group of 122 grade 10 students volunteered to be assessed with respect to the level of test anxiety, study habits, and specificity of anxiety to the test-taking situation. From this original group of volunteers, 42 students were selected on the following basis. Only individuals scoring above 34 on the debilitating scale of the

Achievement Anxiety Test were included as potential candidates for the field study. A pilot study indicated that this procedure would ensure that only the upper 10 percent of test anxious students in the school would be sampled. Of the initial 42 students selected on the basis of the Achievement Anxiety Test, 29 percent did not meet the selection criteria set for the Study Habits Checklist. The cutoff level for selection on this instrument was a raw score of not less than 62, thus eliminating individuals with very poor study habits. This procedure eliminated the bottom 20 percent of the scores obtained by the original 42 students. Of the initial 42 students selected on the basis of the Achievement Anxiety Test, 29 percent did not meet the selection criteria set for the Fear Survey Schedule. The cutoff level for selection was a raw score of no more than 187 which excluded students scoring in the top 20 percent of the scores obtained by the original 42 students. This measure was employed to ensure that participants were primarily test anxious rather than generally anxious. Thus, a participant had to qualify on all three measures in order to be included in the group counselling program. This selection process left 30 students to participate in the field test. These 30 students were randomly assigned to one of three counselling programs - systematic desensitization, cognitive modification, or non-counselling control.

Following these assignments, all 30 students were administered three pre-counselling assessment measures - State-Trait Anxiety Inventory (STAI), (Spielberger et al, 1969); Anxiety Differential (AD), (Husek & Alexander, 1963); and Raven's Standard Progressive Matrices (Raven, 1956).

Once pre-assessments were complete, the systematic desensitization counselling group and the cognitive modification counselling group were begun under the leadership of two counsellors specifically trained in the use of counselling manuals. The non-counselling group had no counselling contact during the active treatment period. At the completion of the counselling programs the pre-assessment instruments were administered and the results were recorded.

Field Test Results

The results of both the pre- and post-assessments are presented in Table I. The internal consistency estimates, using alpha coefficients, for each pre- and post-counselling measure are reported in Table II. Based on these alpha coefficients it can be stated that two of the measures (STAI and Raven's) used in the field test possessed a high degree of internal consistency reliability, while the third (AD) had moderate internal consistency (cf. Leal, 1979). The minimal difference between the alphas for the pre- and post-counselling assessments support the reliability of the mean scores as presented in Table I for the STAI, the AD, and the Raven's.

Table I reports pre- and post-treatment mean scores for each of the experimental groups on each of the dependent variables used in the field test. Statistical significance of pre-posttest differences on each variable, within each group were determined by Leal (1979) through the use of dependent t-tests. From Table I, it can be stated that the cognitive modification counselling program had a positive effect on the alleviation of anxieties related to test situations (e.g. on the STAI and AD measures) as well as a positive effect on test-taking performance (e.g. on the Raven's measure).

TABLE I
FIELD TEST RESULTS

| Measure | Counselling Group | Pre-Counselling Mean Score | Post-Counselling Mean Score | Effect |
|---------|----------------------|-------------------------------|--------------------------------|------------|
| STAI | Cog. Mod. | 42.00 | 35.20* | Positive |
| | S.D. | 39.40 | 40.10 | Negligible |
| | Non-Coun. | 35.10 | 35.90 | Negligible |
| AD | Cog. Mod. | 52.20 | 46.10* | Positive |
| | S.D. | 46.20 | 45.50 | Negligible |
| | Non-Coun. | 54.00 | 53.70 | Negligible |
| Raven's | Cog. Mod. | 40.40 | 43.90* | Positive |
| | S.D. | 40.80 | 45.00* | Positive |
| | Non-Coun. | 41.70 | 41.30 | Negligible |

Cognitive Modification (Cog. Mod.)

Systematic Desensitization (S.D.)

Non-Counselling (Non-Coun.)

*Significant at $p < .05$ (cf. Leal, 1979)

TABLE II
INTERNAL CONSISTENCY ESTIMATES OF FIELD TEST MEASURES

| Measure | Pre-Counselling Alpha | Post-Counselling Alpha |
|---------|--------------------------|---------------------------|
| STAI | .84 | .83 |
| A.D. | .74 | .69 |
| Raven's | .87 | .86 |

These data support the utility of cognitive modification counselling programs in reducing debilitating test anxiety in high school students.

The data from Table I relating to the systematic desensitization counselling program appear to indicate that this program experienced somewhat limited success. The systematic desensitization procedures appear to improve test-taking performance (e.g. on the Raven's measure), but have little concomitant effect on self-reported anxiety (e.g. on the STAI and AD measures).

The non-counselling group changed very little on any of the three measures (e.g. on the STAI, the AD, or the Raven's). The stability of the control across the pre- to post-assessment time interval further confirms the validity of associating the observed changes in experimental measures, for the systematic desensitization and cognitive modification counselling groups, with the actual counselling interventions undertaken.

CHAPTER V
DISCUSSION

Counselling procedures, in order to be employable by high school counsellors, must meet the minimum criteria of being both effective and practical. The systematic desensitization and cognitive modification counselling procedures, as outlined in this thesis, appear to be both effective and practical counselling techniques for the treatment of high school students who possess situational test-related anxieties. This being so, the implications of this study for high school counsellors and high school counselling procedures should be clearly examined.

The assessment procedures and counselling curricula, developed and employed in the current study, equip the high school counsellor with a means of identifying and remediating the problem of test-related anxiety as experienced by high school students. The ability to identify the problem of test anxiety affords the counsellor the opportunity to intervene before these anxieties create a crisis situation for the student and all those concerned with his/her academic attainment. That is, the counsellor has the means by which to make an early assessment of the level of test anxiety experienced by all students long before they are required to write important examinations which may influence their overall career development.

Once the counsellor has identified the problem as being a serious one for several students, he/she can form a counselling group and begin to work toward remediation of the problem through the application of the systematic desensitization and/or the cognitive modification counselling procedures. Assignment of test anxious students to a particular group counselling procedure could be in part determined by student's responses to questions

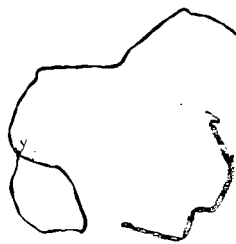
(during informal interviews) that relate to the specific components of test anxiety (i.e., emotionality and worry). From such responses it would be possible to theoretically match students to treatments. Thus, the systematic desensitization counselling procedure might be reserved for students whose test anxiety has a dominant emotional component (i.e., physical manifestations such as nausea, headaches, and so on), whereas the cognitive modification counselling procedure would tend to be utilized with students whose test anxiety has a dominant worry component (i.e. negative self-defeating statements). Future research projects involved in the treatment of test anxious students should be designed along these proposed lines to test the validity of matching counselling treatments to student anxiety aptitude.

The instructional model of counselling, which typifies both the systematic desensitization and cognitive modification counselling procedures, enables the counsellor to become a teacher (facilitator of skill development) who measures his/her effectiveness in concrete terms. This is in marked contrast to the medical model of counselling, where the counsellor is merely a prescriber (intervener) of remedies who measures his/her effectiveness in terms of the approval of others - students, parents, teachers, and so forth. Early intervention into the problem of test anxiety has the potential effect of allowing students to become involved in the counselling process as active learners, rather than as "problem pupils".

As for the criteria of practicability, both the systematic desensitization and cognitive modification counselling procedures appear to fulfill this requirement on several counts. First, they are economical. On the basis of the results of the field test, it is apparent that systematic

desensitization and cognitive modification can be effectively employed in groups and thereby reach several students with a common anxiety problem. Groups of six to ten are easily managed, representing less than one counsellor-hour per student (e.g. six, one-hour counselling sessions for six to ten students). Second, counselling time can be further reduced if students are actively involved and interested in the counselling process. The students role-play in the counselling sessions, and in doing so model for each other an active-coping role in place of a passive reactive one. Third, no elaborate facilities are necessary. A relatively quiet room with suitable tables and chairs is sufficient. A fourth practical advantage is that counsellors can be easily trained in these counselling procedures. The counselling manuals are self-contained to the extent that several hours of reading, followed by several hours of simulated counselling practice can equip the school counsellor with the skills necessary for implementing these group programs. Finally, these participants can apply newly acquired coping skills to a wide variety of present and future anxiety-arousing situations. For instance, the students in the field test reported employing their coping skills to reduce anxiety before playing in a basketball game or speaking in public. These experiences give the student a sense of accomplishment, control, confidence, and a sense of his/her own personal coping ability. This is yet another sense in which such counselling procedures can act as effective preventive, as well as remedial, interventions.

The effectiveness and practicability of both the systematic desensitization and the cognitive modification instructional programs have far reaching implications for developing instructional counselling curricula for use in public high schools.



Much of the criticism that has been directed toward counsellors and the practice of counselling in public schools in British Columbia, stems from the lack of: (1) definitive roles for counsellors; and (2) quantitative measures of counsellor effectiveness (McGregor, 1978). These bases of criticism can be eliminated with the introduction of instructional counselling programs that equip the counsellor with a methodology to identify, design, implement, and evaluate effective counselling interventions. The goal-referenced developmental model, as outlined in Figure 3 in this thesis, equips the school counsellor with a practical process for the development of instructional counselling curricula. Based on the apparent effectiveness of the systematic desensitization and cognitive modification counselling programs for the treatment of test anxious high school students (Table I indicates that only the cognitive modification program was effective in reducing anxiety self-report scores, both programs positively affected test-taking performance); the application of the goal-referenced developmental model to other counselling related problems would seem appropriate. Therefore, it is recommended that school counsellors seriously consider the use of: (1) both the systematic desensitization and cognitive modification counselling procedures (as outlined in this thesis) in their work with test anxious high school students; and (2) the goal-referenced developmental model as a framework for the development of other instructional counselling programs for the treatment of a variety of counselling related problems.

APPENDIX A

A simulation of session 1, as outlined in the systematic desensitization counselling manual, was conducted in an education seminar at Simon Fraser University. The group consisted of five graduate students (1 female and 4 males) in a masters of counselling program. They were asked to play the role of test anxious high school students, who were involved in a systematic desensitization counselling group. The group leader was a high school counsellor involved in developing and field testing instructional counselling manuals (i.e. the systematic desensitization and cognitive modification counselling manuals).

Using an evaluative format based on the concepts originally developed by Winne (1975), the simulated session was clinically supervised by trained graduate students. Feedback from this critical assessment was used to evaluate and revise the instructional aspect of both the systematic desensitization and cognitive modification counselling manuals. A summary of this evaluation was detailed as follows.

1. Structuring Skills

- a) Overview - a short presentation at the beginning of a session which outlines the major topics to be dealt with and how they will be considered.

Assessment - The counsellor could have expanded the introduction to cover the whole of session 1. The counsellor did however thoroughly cover the points to be discussed in this part of the session.

- b) Statement of Objectives - clearly stating what it is that the students should be able to do after the session that they could not do before the session.

Assessment - The counsellor continually stated the reasons for the activities to be attempted. "Once you have learned the relaxation technique, it can be used to counter anxiety, tenseness."

- c) Topic Summarization within a Session - briefly reviewing the major concepts and their interrelationships that have been presented as part of one of the topics examined in a lesson.

Assessment - The counsellor did an excellent job of summarizing not only the concepts, but also what was said by the group members. For instance, the synthesizing of the comments made on the nature, duration, and severity of the test anxieties of the group. Specific reference was made to the comments of group members.

- d) Session Review - briefly reviewing the major topics and their interrelationships that have been presented in the session.

Assessment - The counsellor did this very well. Not only were the topics reviewed, but homework relating to the topics as well.

- e) Verbal Markers of Importance - using a word or phrase to stress the significance of a fact, a concept, or a process.

Assessment - The counsellor did this on a number of occasions.

For example, "If you are relaxed you cannot be tense", or "If you practice relaxing you will be able to reduce anxiety".

- f) Statement of Transition - alerting students to a change in the focus of the session's content or process.

Assessment - The counsellor did this each time there was a change of focus. For instance, "Now that we have looked at the nature,

duration, etc., we will ..." or "Now that we know something about the theory, we are going to practice ..."

- g) Inducing Set or Providing a Common Basis for Consideration - presenting an example or experience that is relatively the same for all group members.

Assessment - The counsellor did this on a number of occasions.

This tended to keep the interest and involvement of the group members. For example, "... we have stated that we all have problems coping with test situations, and we have physical manifestations such as tight stomachs ..."

- h) Physical Arrangement - placing students and materials in a spatial arrangement that allows for a particular kind of communication.

Assessment - The members of the group were asked to sit around a table in such a manner that they could have eye contact with each other as well as with the counsellor.

2. Soliciting Skills

- a) Fact Recall Questions - questions that call for the description of a single fact.

Assessment - The counsellor used very few of this type of question because much of the session was instructional. This questioning techniques was prevalent in the beginning of the session.

- b) Pace - controlling the speed with which information is brought into the session by asking fewer or more questions.

Assessment - The counsellor asked very few questions. He could have possibly asked more at the end of each section in the session

before going on - more checking out of the students' understanding and thus slowing the pace somewhat.

- c) Redirection - asking the same question of two or more students in succession.

Assessment - The counsellor did an excellent job of redirecting the conversation. For instance, "Gordon, have you experienced feelings similar to Doug?"

- d) Post-Question Wait Time - pausing three or more seconds after finishing a question phrase before calling on a student to answer.

Assessment - The counsellor only waited about one second before calling on a student to answer. This area needs some attending to.

- e) Prompting Question - a question following an incomplete or incorrect student response which asks the same student to justify or elaborate on the first answer.

Assessment - The counsellor did a great deal of this in the introduction to the session. He asked members to give specific examples of test situations that were anxiety provoking when they gave general information. More of this could have been done later on, but was not.

- f) Probing Question - a question following an incomplete or incorrect student response which asks the same student to justify or elaborate on the first answer.

Assessment - After explaining the theory, the counsellor asked, "Do you have any questions on what I have just said?" The students did not respond. The counsellor continued without

asking a specific student to respond.

3. Reacting Skills

- a) Praise - expressing that a student's response was a good one.

Assessment - The counsellor did not give this type of feedback.

- b) Informational Feedback - stating the degree to which a student initiation or response is accurate and complete.

Assessment - The counsellor did this on several occasions in relation to the theory. In this session, however, most of the information came from the counsellor - instructional.

- c) Informational Feedback with Justification - stating the degree to which a student initiation or response is accurate and complete, a reason as to why that statement was made.

Assessment - The counsellor did not use this skill. Perhaps this could have been done in the early assessment of anxieties.

- d) Incorporating Student Response into the Session - explicitly using a student response in developing the content or process of the session.

Assessment - The counsellor did much of this in the early part of the session. The first part of the session is built upon student responses. Perhaps these responses could have been restated by the counsellor later on again in the session.

- e) Post-Response Wait Time - pausing three or more seconds after a student finishes with a statement before engaging in any other teaching act.

Assessment - The counsellor waited on the average about two seconds.

This caused for some rapid fire discussion.

4. Group Alerting Skills

- a) Random Recitation Sequence - to call upon the individual group members to respond in random order.

Assessment - The counsellor did an excellent job of practicing this skill at all times during the session.

- b) Positive Questioning Technique - to ask the question and then call upon an individual by name

Assessment, - The counsellor made excellent use of this technique.

He always used this skill, rather than asking the individual and then asking the question.

- c) Goal Directed Prompts - statements or actions that indicate the goal to be attained.

Assessment - The counsellor made a number of statements of this nature. For example, "... in this group we will use this technique to help you to become less sensitive to test situations".

- d) Calls for Demonstration - to have the students demonstrate what they have been taught.

Assessment - The counsellor did not do enough checking out. He relied a great deal on non-verbal feedback. On the other hand, the counsellor demonstrated the procedure for learning how to relax.

- e) Eye Movement and Contact - to keep the students involved by looking at individual members as well as the whole group.

Assessment - The counsellor had good eye contact for most of the session. The most obvious time when he did not was when he was taking notes.

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