

COVERT MODELING AND THE TREATMENT
OF TEST ANXIETY

by

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ABSTRACT

The present study investigated the effect of covert modeling in the reduction of test anxiety. Covert modeling requires the subject to imagine a model rather than to observe a live or film model. College students volunteering for a treatment study on test anxiety were screened with the Test Anxiety Scale (TAS). Fifty-one subjects were further assessed pretreatment with the General Anxiety Scale, anagrams task, and the Subjective Unit of Disturbance Scale. In four sessions, subjects imagined 32 scenes in which the covert model coped with a test-anxiety-provoking situation. No-modeling and delayed-treatment control groups were included in the design to control for test anxiety-relevant imagery and the effects of repeated assessment without intervening treatment, respectively. Thirty-six subjects (12 in each condition) were assessed at posttreatment. Subjects in the covert modeling group showed a significant reduction in test anxiety on the TAS at the posttreatment assessment. These results were not found at the 3-week follow-up. No other comparisons were found to be significant.

INTRODUCTION

Modeling has been used effectively as a therapy technique for a variety of behavioral problems (Bandura, 1971). Usually, live or filmed models have been used to present the desired stimulus cues.

Covert modeling is a technique originated by Cautela (1971) in which the client imagines a model engaged in behavior that he wishes to develop, without the use of live or filmed models. The main assumption underlying this, and other covert conditioning procedures, is that "a stimulus presented in imagination via instructions can effect covert and overt behaviors in a manner similar to stimulus presented externally" (Cautela, Flannery, and Hanley, 1974, p. 494).

Covert modeling has been shown to reduce avoidance responses to snakes (Kazdin, 1973, 1974a, 1974b, 1974c) and rats (Cautela et al., 1974). Covert modeling has also been successful when applied to a more complex interpersonal problem--subassertiveness (Kazdin, 1974d, 1975, 1976; Rosenthal and Reese, 1976). A major purpose of the present study is to evaluate the effectiveness of covert modeling in the treatment of test anxiety.

Test anxiety is a clinical problem which often leads to impaired academic performance and learning. A variety of

approaches have been used to treat test anxiety. Both desensitization (Garlington and Cotler, 1968; Osterhouse, 1972; Paul and Shannon, 1966) and covert positive reinforcement (Guidry and Randolph, 1974; Wisocki, 1973) have been successful in lowering test anxiety. Other techniques, such as implosion (Prochaska, 1971) and attentional training (Little and Jackson, 1974) have met with mixed or partial success. Wine (1971) and Meichenbaum (1972) have reported successes in applying modeling principles to the treatment of high test anxious college students. Research has shown that live modeling is successful as a facilitating factor for performance in a testing situation (Sarason, 1975), and that modeling effects are greater for high test-anxious subjects than for low test-anxious subjects (Sarason, 1972b). This is the first research attempt to evaluate the effectiveness of covert modeling in the treatment of test anxiety.

Research by Kazdin (1973, 1974a, 1974b, 1974c, 1974d, 1975) has begun to examine the parameters which enhance the effectiveness of covert modeling. Kazdin (1974a, 1974b) found that snake-phobic subjects who imagined a coping model (one who shows initial anxiety, yet copes with the problem situation) showed greater improvement than those who imagined a mastery (or fearless) model. The effectiveness of covert modeling in treating snake phobics (Kazdin, 1974a), and subassertive subjects (Kazdin, 1975) has also

been enhanced by imagining several different models engaged in the desired performance.

Kazdin has controlled for the effects of exposure in imagination to anxiety arousing scenes, by including a no-model control group in his studies. Subjects in this group imagined a scene related to the target problem without any model present in the scenes. Results of research with snake phobics (Kazdin, 1973, 1974a, 1974b, 1974c) and subassertive subjects (Kazdin, 1974d, 1975, 1976) support the efficacy of the covert modeling groups over the no-model controls.

To assess the effectiveness of covert modeling in the reduction of test anxiety, the subjects in this study were divided into three groups: covert modeling; a no-model control group; and a delayed treatment control. Subjects in the covert-modeling group imagined four different models coping with test anxiety in a variety of scenes. The no-model group imagined the same test-anxiety related scenes without a model.

The prediction was that covert modeling would be significantly more effective in the treatment of test anxiety than either the no-model or delayed-treatment control groups.

METHOD

Subjects

Subjects for this study were solicited via advertisements and announcements on campus for a treatment study on test anxiety. Those subjects who expressed an interest in participating in the study were further screened using Sarason's (1972a) Test Anxiety Scale (TAS). Only those subjects who obtained a score of at least 21 on the 37-item scale were included in the study. The mean of the 281 questionnaires gathered from students was 19.87 (SD = 7.60), with 140 students measuring 21 or higher on the TAS.

Test Anxiety Scale scores of the subjects who agreed to participate were arranged in descending order. The three highest scoring subjects were then randomly assigned to one of three conditions: covert modeling, no-model treatment, and a delayed-treatment control. This procedure was repeated until all of the trios were assigned to groups. Thus, we utilized a randomized blocks design as discussed by Campbell and Stanley (1963).

Participation in this study was strictly voluntary, with no payments or class credits given.

Assessment of Test Anxiety

In addition to the Test Anxiety Scale, subjects were assessed individually by one of three undergraduate research assistants, blind to the experimental hypotheses.

This assessment consisted of the administration of the General Anxiety Scale (GAS, Sarason, 1972a), and a timed anagrams performance test administered with anxiety arousing instructions. In addition, subjects rated their degree of anxiety on a 100 point self-rating scale of anxiety, the Subjective Unit of Disturbance Scale (SUDS, Wolpe and Lazarus, 1966).

The GAS is a 17-item true-false questionnaire related to non-situational anxiety, used to assess the subject's level of non-test related anxiety.

The timed anagrams performance test consisted of the presentation of eight scrambled words to be unscrambled by the subject. Subjects were given a 4 minute limit for each word. After two minutes, if they had not discovered the solution, they were told the first letter of the word. After three minutes they were told the second letter.

The purpose of the anagrams task was to provide a behavioral measure of test anxiety. Anagrams have been used in previous test-anxiety studies, with the assumption that test anxiety, if present, would interfere with maximal performance (Garlington and Cotler, 1968). Experimental support for this assumption has been shown by Russell and

Sarason (1965). They found that high test anxious subjects were markedly inferior in performance on anagrams problems to the low test-anxious subjects. It has also been demonstrated that high test-anxious subjects do more poorly on an anagrams task with high-anxiety arousing instructions, than on the same task with low-anxiety arousing instructions (Sarason, 1961).

Subjects in this study were given the following high-anxiety arousing instructions for the anagrams task:

The anagrams I am going to give you are a measure of general intelligence and the ability to think in abstract terms. College freshmen have been found to solve these particular anagrams quickly and with little difficulty, so you should have little trouble. I purposely selected easy ones for college students, so I could get at the mental processes you use.

To determine whether the subjects were imagining scenes appropriate to their experimental condition post-session questionnaires were administered by the therapist immediately after the first and last treatment sessions. Subjects in the covert modeling condition were asked: "What was the age and sex of the person in the scene?" In addition, treatment subjects were asked to rate on a scale from 1 to 5 their answers to the following questions: "How anxious were you while imagining the treatment scenes?"; "How clearly were the scenes imagined?"; and "What amount of material presented by the therapist could you imagine in a given scene?"

The posttreatment assessment was identical to the pretreatment assessment. The Test Anxiety Scale, the General Anxiety Scale, and the timed anagrams test (using eight new anagrams) were administered to all subjects individually. The Subjective Unit of Disturbance Scale again followed the anagrams task.

After the posttreatment assessment, the delayed-treatment subjects were offered the covert modeling treatment.

Three weeks after the posttreatment assessment subjects were mailed the Test Anxiety Scale. Since this was shortly after final exams, subjects were asked to fill out the questionnaires as they felt during their exam period.

Treatment

The treatment procedure was designed directly after the covert modeling procedure employed by Kazdin (1973, 1974a, 1974b, 1974c, 1974d, 1975).

Treatment was administered by six female undergraduate research assistants, blind to the experimental hypotheses. Photocopied instructions were supplied to the research assistants to insure standardization of procedure. In addition, the assistants underwent a one-hour training session during which the procedures of treatment were rehearsed. The assistants were each randomly assigned 4 or 5 subjects, including subjects from both the covert modeling

and no-model group. Treatment was administered individually to the covert modeling and no-model groups in four half-hour sessions over a two-week period. Subjects in the delayed-treatment group were called after the pre-treatment assessment and informed that there was no room in treatment at the present. They were told that they would be contacted for treatment in several weeks.

At the beginning of each session, the subjects were asked to imagine a practice scene unrelated to test anxiety. Thirty-two tape-recorded scenes were used during treatment, eight each session. Each scene consisted of two parts: (a) a description of the context and situation in which test anxiety would be likely, and (b) a model who initially expresses anxiety, yet performs appropriately in the situation. An example of one of the scenes used in the covert modeling condition is as follows:

(a) The scene is a lecture hall the day of an examination. The students are being handed the exams row by row. The teaching assistants have started at the bottom of the lecture hall. As the tests are handed out, the feelings of expectation rise in the students who are seated in the last rows. To them it seems like it has taken a long time for the tests to be distributed and that the other students are probably far ahead.

(b) Now imagine the model you have practiced as a student in the back of the lecture hall. He is beginning to become very anxious to see the test. As he receives his exam he tells himself that it is silly to worry about any advantage the other students might have, since they will be the first to pass in their exams. He begins to work on his exam, not thinking about the performance of the other students.

Subjects in the no-model group were asked to imagine only part (a) of the scenes. Subjects in the covert-modeling group were asked to imagine parts (a) and (b) with a different model being specified each session. The models imagined by the covert-modeling group were varied along the dimensions of age and sex. For the first session the model imagined was similar in age and of the same sex as the subject. During the next three sessions the models imagined were, in order: older and of the opposite sex as the subject, similar in age and of the opposite sex, and older and of the same sex.

The subjects were instructed to signal the therapist, by raising a finger, after each scene was presented and the image clearly pictured. The therapist instructed the subject to keep imagining the scene for 30 seconds at which time they were told to terminate the scene.

RESULTS

Subjects

Of the 52 subjects who received the pretreatment assessment, 36 (12 within each group) completed the study. The distribution of sexes within the group was as follows: covert modeling (10 female, 2 male); no-model (9 female, 3 male); and delayed-treatment (10 female, 2 male). One-way analysis of variance revealed no group differences on any dependent measure at the pretreatment assessment period.

Two-tailed t-test comparisons of pretreatment assessment showed that the subjects who remained in the study were not significantly different from those who dropped out on any dependent measures except the Subjective Unit of Disturbance Scale. Subjects who remained in the study rated themselves, at pretreatment, as significantly less anxious on a typical day than those who dropped out of the study, $t(14) = 3.52, p = .001$. The group mean of the drop-outs was 59.67, the group mean of the remaining subjects was 39.31. In addition, subjects who remained in the study rated themselves as significantly more anxious after the anagrams performance task at pretreatment, than subjects who dropped out, $t(14) = -2.47, p < .05$. The group mean of the drop-outs was 39.73, the group mean of the remaining subjects was 55.0.

Treatment Effects

The means and standard deviations for all groups on all measures is presented in Table 1. Main treatment effects were analyzed by one-way analyses of covariance using pretreatment scores as the covariate. An analysis of covariance on posttreatment Test Anxiety Scale scores showed a significant treatment effect, $F(2,32) = 3.66$, $p < .05$. Post-hoc paired comparisons among the adjusted post-treatment means were made by the Newman-Keuls test. The Newman-Keuls test showed that the subjects in the covert-modeling group reported significantly less test-anxiety on the TAS than did the delayed-treatment control group ($p < .05$). None of the remaining comparisons were significant.

An analysis of covariance showed that treatment had no significant effect on the subjects' scores on the General Anxiety Scale ($F < 1$). There was also no significant treatment effect on the timed anagrams task. Subjective Unit of Disturbance Scale ratings of anxiety experienced during a normal day ($F(2,32) = 1.761$, $p = .187$), and after the anagrams task ($F(2,32) = 2.713$, $p = .08$) were also not significant at posttest.

Follow-up

Of the thirty-six Test Anxiety Scale questionnaires mailed to subjects for a follow-up assessment, twenty-five (69.6%) were returned. The follow-up questionnaires

Table 1. Mean Pre- and Posttreatment Scores Across Treatment Conditions

		Covert Modeling		No-model		Delayed-treatment	
		<u>M</u>	<u>S.D.</u>	<u>M</u>	<u>S.D.</u>	<u>M</u>	<u>S.D.</u>
Test Anxiety Scale ^a	pre	25.6	3.45	27.1	4.42	26.3	3.86
	post	20.2	7.18	23.6	5.84	26.8	4.31
General Anxiety Scale ^b	pre	8.3	2.86	10.3	3.62	9.6	2.47
	post	8.1	3.70	9.9	3.58	10.2	3.16
Anagrams ^c	pre	976.8	200.46	935.4	182.5	830.0	223.5
	post	977.7	143.7	988.8	213.01	987.0	229.78
Subjective Unit of Dis- turbance Scale (current) ^d	pre	52.9	22.91	59.6	18.15	52.5	20.84
	post	37.2	19.95	56.4	21.54	46.6	15.99
Subjective Unit of Dis- turbance Scale (normal day) ^d	pre	34.75	15.46	43.3	16.42	39.8	18.02
	post	26.83	15.62	42.7	20.04	35.42	18.52

^aMaximum score 37.

^bMaximum score 17.

^cTime in seconds.

^dMaximum score 100.

returned were distributed across the groups as follows: covert modeling (83% returned), no-model (67%), and delayed-treatment (58%).

An analysis of covariance of follow-up Test Anxiety Scale scores, with pretreatment scores as the covariate, showed no treatment effects ($F < 1$). However, there was a trend suggesting that a greater percentage of subjects in the covert-modeling group showed improvements on the Test Anxiety Scale at follow-up than did subjects in the other two conditions. These percentages are presented in Table 2.

Table 2. Percentage Pretest/Follow-up Change on the Test Anxiety Scale

Group		Percentage of Subjects ^a
Covert Modeling	decrease ^b	80% (8)
	same	-- (0)
	increase ^c	20% (2)
No-model	decrease	57% (4)
	same	-- (0)
	increase	43% (3)
Delayed-treatment	decrease	62.5% (5)
	same	12.5% (1)
	increase	5% (2)

^aNumber in parentheses indicates the number of subjects.

^bA follow-up TAS score of one or more points less than pretest.

^cA follow-up TAS score of one or more points greater than pretest.

Imagery Assessment and Compliance

All of the subjects in the covert modeling group were able to identify accurately the age and sex of the specified model for both the first and the fourth session. There were no significant differences between the covert-modeling and the no-model groups on any of the imagery descriptors.

As mentioned earlier, subjects were instructed to rate their anxiety to the imagined scenes on a 5-point scale. The combined means of the covert modeling and the no-model groups after the first and fourth session ratings were 3.25 and 2.17 respectively. A two-way analysis of variance of these anxiety ratings (groups by time) was significant across the time variable only, $F(1,22) = 38.54$, $p < .01$. Subjects in both groups reported significantly less anxiety while imagining treatment scenes in the fourth session than in the first.

Two-way analyses of variance of the subject's ratings of imagery clarity, and the amount of the scenes imagined (on a 5 point scale) were not significant across groups or time. These ratings showed, however, that the subjects in both treatment groups were imagining the scenes clearly (first session, $M = 4.33$; fourth session, $M = 4.17$), and were able to imagine almost all of the scenes as presented (first session, $M = 4.5$; fourth session, $M = 4.4$).

Intercorrelations Among Dependent Measures

To assess interrelationships among the dependent measures, Pearson product-moment correlations were computed for pretreatment scores on all measures. These intercorrelations are presented in Table 3.

Table 3. Correlation Between Pretreatment Measures

Pretreatment Measures	Pearson Product-Moment Correlations			
	GAS	ANA	SUDSC	SUDSN
Test Anxiety Scale (TAS)	.50***	.11	.15	.31*
General Anxiety Scale (GAS)		.09	.25	.39**
Anagrams (ANA)			.31*	.19
Subjective Unit of Disturbance Scale, current (SUDSC)				.36**
Subjective Unit of Disturbance Scale, normal day (SUDSN)				

* $p < .05$.

** $p < .01$.

*** $p < .001$.

The correlation between the pretreatment scores on the Test Anxiety Scale and on the Subjective Unit of Disturbance Scale (after the anagrams task) was not significant, $r = .15$, $p = .19$. A moderate correlation was found between

the subject's pretreatment self-report of general anxiety on the General Anxiety Scale, and on the Subjective Unit of Disturbance for a normal day, $\underline{r} = .39$, $\underline{p} = .01$.

Similarly, the obtained correlational coefficient between self-reported test anxiety on the Test Anxiety Scale, and anagram performance time at pretreatment ($\underline{r} = .12$, $\underline{p} = .26$) was not significant.

The subjects' general anxiety as measured pretreatment on the General Anxiety Scale correlated with pretreatment test anxiety on the Test Anxiety Scale ($\underline{r} = .50$, $\underline{p} = .001$). A correlation of Subjective Unit of Disturbance ratings after the anagram task and for a normal day was also found to be significant ($\underline{r} = .37$, $\underline{p} < .02$). Self-reported test anxiety thus correlated highly with self-reported general anxiety.

DISCUSSION

The main results of this study demonstrated that covert modeling led to significantly greater improvements on the Test Anxiety Scale compared to the delayed-treatment control. Treatment consisting of the presentation of a test-anxiety related scene, without a coping model, did not produce a significant reduction in test anxiety on any dependent measure. The fact that the covert modeling group showed no significant decrease in ratings of general anxiety would support the specificity of this treatment to test anxiety. These results are consistent with the experimental predictions, and suggest that covert modeling holds promise as a treatment technique for test anxiety.

However, the results suggest some clear limitations on the clinical effectiveness of this procedure for the treatment of test anxiety. Treatment effects were obtained on only one measure (the Test Anxiety Scale), and did not maintain at follow-up. In addition, while the results for the TAS were statistically significant, the absolute amount of change was relatively small. The covert modeling group changed from a pretreatment mean of 25.6 to a posttreatment mean of 20.2. By clinical standards, a score of 20 items in the test anxious direction represents a high degree of anxiety.

Methodologically, the treatment in this study suffered from the same weaknesses present in many analogue studies. These include: a relatively short treatment duration; a treatment plan which was standard across subjects regardless of individual differences; and subjects who were bright, verbal college volunteers. The drop-out rate, while high particularly in the no-treatment control group, did not produce consistent differences between drop-outs and the remaining subjects that would alter our interpretation of the results.

Perhaps a more central criticism of the external validity of this study concerns the poor correlation shown among the dependent measures of test anxiety. Contrary to the findings of Russell and Sarason (1965), we found no significant correlation between self-reported test anxiety and anagram performance time. The anagrams task has been used as a dependent measure of test anxiety in other treatment studies. Garlington and Cotler (1968) found that desensitization was effective in the reduction of test anxiety as measured by the Test Anxiety Scale and the Fear Survey Schedule II (Geer, 1965). On an anagrams task there was no significant difference between the treatment and control groups posttreatment. Kostka and Galassi (1974) found a significant difference between treatment and control groups in anagram performance after treatment. The differences, however, did not concur with those shown on two

self-report measures; the Suinn Test Anxiety Behavior Scale (Suinn, 1969) and the Achievement Anxiety Test (Alpert and Haber, 1960). The above results, and those of this study would suggest that the anagrams task is not a consistent behavioral measure of test anxiety, and its further use warrants a critical evaluation.

In using covert modeling in the treatment of test anxiety we assume that by guiding an individual through a series of imagined scenes, in which both coping behaviors and cognitive patterns are modeled, the individual will learn this modeled behavior and be able to apply it to his own problem. Several studies, however, have pointed to the importance of cognitive patterns in the maintenance of test anxiety. High test-anxious individuals are more self-preoccupied and self-deprecatory than low test-anxious individuals (Doris and Sarason, 1955; Meunier and Rule, 1967; Sarason and Ganzer, 1962, 1963; Wine, 1971). Attention to this internal dialogue rather than to the task at hand has been cited as a central characteristic of test-anxiety, and more debilitating than the emotional arousal component (Doctor and Altman, 1969; Meichenbaum, 1972; Morris and Leibert, 1969).

Recently, cognitive modification treatments have been aimed at increasing the high test-anxious subject's awareness of his debilitating self-statements, and teaching the subject to modify or inhibit those statements.

Meichenbaum (1972) found that cognitive modification treatment was more effective in significantly reducing test anxiety than group desensitization. Wine (1970) found that a treatment group instructed to attend to the task at hand and inhibit self-statements was as effective in reducing test anxiety as a group receiving the same treatment plus relaxation.

Covert modeling appears to be a promising vehicle for the teaching of behavioral and cognitive skills aimed at the reduction of test anxiety. The results of the above research would suggest that treatment generalizability and persistence in this present study were possibly hindered by an initial lack of focus on the subject's maladaptive cognitive skills, prior to treatment with covert modeling.

Due to the high degree of concentration needed for criterion performance in a testing situation, modification of covert self-statements appears to be a centrally important target area in breaking the test anxiety cycle. Self-awareness and modification of distracting cognitions, although they no doubt exist, may not be as crucial in the treatment of other behavioral problems where the desired behavior may be performed despite the cognitions. This may partially explain the somewhat stronger results shown with covert modeling by Kazdin in the treatment of snake phobias, and subassertive behavior (Kazdin, 1973, 1974a, 1974b,

1974c, 1974d, 1975, 1976] where the self-verbalization component may be less crucial in maintaining the anxiety.

In summary, this study has suggested that covert modeling shows promise as a moderate treatment for test anxiety. It has further been suggested, as a direction for subsequent research, that the effectiveness of covert modeling could be enhanced by making the subject aware of his own anxiety producing self-statements, thereby utilizing covert modeling as a vehicle for the teaching of alternate behavioral and cognitive coping skills for test anxiety.

APPENDIX A

DEPENDENT MEASURES

Test Anxiety Scale

The following questionnaire contains 37 statements concerning different feelings about examinations. You are to read each of these statements carefully and answer either true (T), or false (F), as that statement applies to you. Please answer all of the statements.

Sex: Male _____ Female _____ Age _____

- _____ 1. While taking an important exam I find myself thinking of how much brighter the other students are than I am.
- _____ 2. If I were to take an intelligence test, I would worry a great deal before taking it.
- _____ 3. If I knew I was going to take an intelligence test, I would feel confident and relaxed beforehand.
- _____ 4. While taking an important examination I perspire a great deal.
- _____ 5. During course examinations I find myself thinking of things unrelated to actual course material.
- _____ 6. I get to feel very panicky when I have to take a surprise examn.
- _____ 7. During tests I find myself thinking of the consequences of failing.
- _____ 8. After important tests I am frequently so tense that my stomach gets upset.
- _____ 9. I freeze up on things like intelligence tests and final exams.
- _____ 10. Getting a good grade on one test doesn't seem to increase my confidence on the second.
- _____ 11. Sometimes I feel my heart beating very fast during important tests.
- _____ 12. After taking a test I always feel I could have done better than I actually did.
- _____ 13. I usually get depressed after taking a test.

- _____ 14. I have an uneasy, upset feeling before taking a final examination.
- _____ 15. When taking a test my emotional feelings do not interfere with my performance.
- _____ 16. During a course examination I frequently get so nervous that I forget facts I really know.
- _____ 17. I seem to defeat myself while working on important tests.
- _____ 18. The harder I work at taking a test or studying for one, the more confused I get.
- _____ 19. As soon as an exam is over I try to stop worrying about it, but I just can't.
- _____ 20. During exams I sometimes wonder if I'll get through college.
- _____ 21. I would rather write a paper than take an examination for my grade in a course.
- _____ 22. I wish examinations did not bother me so much.
- _____ 23. I think I could do much better on tests if I could take them alone and not feel pressured by a time limit.
- _____ 24. Thinking about the grade I may get in a course interferes with my studying and my performance on tests.
- _____ 25. If examinations could be done away with I think I would actually learn more.
- _____ 26. On exams I take the attitude, "If I don't know it now there's no point worrying about it."
- _____ 27. I really don't see why some people get so upset about tests.
- _____ 28. Thoughts of doing poorly interfere with my performance on tests.
- _____ 29. I don't study any harder for final exams than for the rest of my course work.
- _____ 30. Even when I'm well prepared for a test, I feel very anxious about it.

- _____ 31. I don't enjoy eating before an important test.
- _____ 32. Before an important examination I find my hands or arms trembling.
- _____ 33. I seldom feel the need for "cramming" before an exam.
- _____ 34. The University ought to recognize that some students are more nervous than others about tests and that this affects their performance.
- _____ 35. It seems to me that examination periods ought not be made the tense situations which they are.
- _____ 36. I start feeling very uneasy just before getting a paper back.
- _____ 37. I dread courses where the professor has the habit of giving "pop" quizzes.

General Anxiety Scale

The following questionnaire contains 17 statements. You are to read each statement carefully, and mark it true (T), or false (F), as it best applies to you. Do not skip any of these statements.

- ___ 1. I freeze up in a competitive situation.
- ___ 2. I worry about my mental health more than do most people.
- ___ 3. I worry about my social adjustment more than do most people.
- ___ 4. I am a high-strung person.
- ___ 5. I wish I could be as happy as others seem to be.
- ___ 6. I don't seem to be able to control worrying about something even when I know there is no basis for it.
- ___ 7. I practically never blush.
- ___ 8. When I have to talk to a group I get very anxious.
- ___ 9. I am usually calm and not easily upset.
- ___ 10. I perspire a lot when I am with a group of strangers.
- ___ 11. I sometimes become so excited that I find it hard to get to sleep.
- ___ 12. When I go to the doctor I worry that he will tell me that something is wrong with me.
- ___ 13. I am inclined to take things hard.
- ___ 14. I have had periods in which I have lost sleep over worry.
- ___ 15. I have been afraid of things or people that I know could not hurt me.
- ___ 16. I am easily embarrassed.
- ___ 17. I have periods of such restlessness that I cannot sit long in a chair.

Pretest Anagrams Task

Student's identification _____ Tested by: _____
 (last four digits of Social Security number)

Date _____

(1) Ask the student, "How many tests do you think you will be having in the next 3 weeks?" _____

When will those exams be held? (Approximately) _____

Instructions for the Anagrams Task:

I am now going to give you a task involving the solution of anagrams. Anagrams are nothing more than words that have been scrambled. Your job is to unscramble the letters to make a word.

The anagrams I am going to give you are a measure of general intelligence and the ability to think in abstract terms. College freshmen have been found to solve these particular anagrams quickly and with little difficulty, so you should have little trouble. I purposely selected easy ones for college students so I could get at the mental processes you use.

I will set out tiles with letters on them. You are to unscramble these letters to make a word. When you know the solution, and have spelled it out with letters, pronounce it for me.

For instance if I set out the tiles "r i b c h" you can make a word out of these letters. You can see that when these letters are rearranged they will spell "birch." (Show the student the correct arrangement.) O.K., let's begin.

	SOLUTION	TIME	PASS/FAIL
(1) D R O U N	round		
(2) X S L A E U	sexual		
(3) M Y S L O B	symbol		
(4) N O R O D	donor		
(5) T I N Y A X E	anxiety		
(6) G U L E G A G	luggage		

	SOLUTION	TIME	PASS/FAIL
(7) G S M L P E I	glimpse		
(8) P C N A Y O	canopy		

Posttest Anagrams Task

Student's identification _____ Tested by: _____
 (last four digits of Social Security number) _____
 Date _____

(1) Ask the student, "How many tests have you had in the last 3 weeks?" _____

When were those exams held? (approximately) _____

Instructions for the Anagrams Task:

I am now going to give you a task involving the solution of anagrams. Anagrams are nothing more than words that have been scrambled. Your job is to unscramble the letters to make a word.

The anagrams I am going to give you are a measure of general intelligence and the ability to think in abstract terms. College freshmen have been found to solve these particular anagrams quickly and with little difficulty, so you should have little trouble. I purposely selected easy ones for college students so I could get at the mental processes you use.

I will set out tiles with letters on them. You are to unscramble these letters to make a word. When you know the solution, and have spelled it out with letters, pronounce it for me.

For instance if I set out the tiles "r i b c h," you can make a word out of these letters. You can see that when these letters are rearranged they will spell "birch." (Show the student the correct arrangement.) O.K., let's begin.

	SOLUTION	TIME	PASS/FAIL
(1) E R A L N U T	neutral		
(2) T I N O N S E	tension		
(3) L P M Y I	imply		
(4) R M N O I	minor		
(5) H O T T A R	throat		
(6) R E L A R U G	regular		

	SOLUTION	TIME	PASS/FAIL
(7) D G N B A E O	bondage		
(8) D L R C E A	cradle		

Subjective Unit of Disturbance Scale

Think of the worst anxiety you have ever experienced, or can imagine experiencing and assign to this the number 100. Now think of a state of being absolutely calm and call this zero. Now you have a scale.

How would you rate yourself at this moment? _____

How would you rate yourself on a normal day? _____

Can you tell me what your worst imagined or real anxiety was? _____

_____ (optional).

Imagery Assessment

Covert Modeling Group

What was the age and sex of the person in the scenes? _____

How anxious were you while imagining the treatment scene?

not at	1	2	3	4	5	very
all						

How clearly were the scenes imaged?

not at	1	2	3	4	5	very
all						

What amount of material presented by the therapist could
you imagine in a given scene?

almost	1	2	3	4	5	everything
nothing						

Imagery Assessment

No-Modeling Group

How anxious were you while imagining the treatment scenes?

not at	1	2	3	4	5	very
all						

How clearly were the scenes imagined?

not at	1	2	3	4	5	very
all						

What amount of material presented by the therapist could
you imagine in a given scene?

almost	1	2	3	4	5	everything
nothing						

APPENDIX B

INSTRUCTIONS FOR MODELING SCENES

Instructions for the No-Modeling Group

Session 1

Before we start, I would like to explain to you what we will be doing for the next four sessions. It has been found that if people practice, through their imaginations, visualizing scenes or situations in which they are usually afraid or anxious, they are less likely to be as afraid in those situations the next time they face them. That is why, over these four treatment sessions, you will be asked to imagine many scenes related to being tested or evaluated.

It is important for you to imagine these situations as vividly as possible. In order to help you imagine your treatment scenes, I would now like to guide you through the imagination of a practice scene.

I will read you the scene. I would like you to close your eyes and visualize the scene I describe as clearly as possible. When you feel it is very clear, raise your finger and hold that scene vividly in your imagination until I tell you to open your eyes. OK, let's try that!

(Read the student the following scene): "Imagine a nice restaurant. At a table in the center of the restaurant

sits a couple. They both order steak. In a while the waiter returns to the table with their orders. They nod their approval, and send him on his way." (The student imagines the scene, and holds it for 30 seconds.)

That was good, any questions? Let's try this scene one more time. I will read it to you. Again you will signal when the image is clear, and hold that image until I ask you to open your eyes. (Read the same scene again.)

OK, now we are able to begin on the treatment scenes. I will play eight scenes which have already been recorded. You are to do as we have practiced for each scene. Any questions?

Let's begin (turn on the tape recorder, sit where you can see the student, but not directly facing him).

Session 2

Before we go on to the treatment scenes for today, let's start with a practice scene. Just as we did the last time, I will read the scene, and with your eyes closed you will try to imagine that scene as vividly as possible. When you have imagined it clearly, you will signal by raising your finger. You will hold that scene until I tell you to open your eyes. Let us begin (read the following scene).

"Imagine a crowded city bus. It is rush hour and the bus is full of businessmen, students, and shoppers. The bus makes a stop and into the bus walks an elderly man."

Good! Let's repeat this scene. Try to imagine all of the details of this scene. Remember to signal me with your finger when you feel that the image is very clear.

(Read the same scene to the student.)

Let's begin (start the tape recorder).

Session 3

Before we go on to the treatment scenes for today, let's start with a practice scene. Just as we did the last time, I will read the scene, and with your eyes closed you will try to imagine that scene as vividly as possible. When you have imagined it clearly, you will signal by raising your finger. You will hold that scene until I tell you to open your eyes. Let us begin (read the following practice scene).

"The scene is a crowded grocery store. It is a Sunday, and everyone has come to do their weekly shopping. As a woman leans over to get a box on a bottom shelf, her wallet drops out. She is not even aware that it is gone."

Good! Let's repeat this scene. Try to imagine all of the details of this scene. Remember to signal me with your finger when you feel that the image is clear. (Read

the same scene to the student.) Let's begin (start the tape recorder).

Session 4

Before we go on to the treatment scenes for today, let's start with a practice scene. Just as we did the last time, I will read the scene, and with your eyes closed you will try to imagine that scene as vividly as possible. When you have imagined it clearly, you will signal by raising your finger. You will hold that scene until I tell you to open your eyes. Let us begin (read new practice scene).

"Imagine the scene as a drug store. It is very crowded in the store. You see customers lined up at the counter, checking out their goods. Imagine the customer at the counter. Receiving his change, he notices that he is missing a dollar."

OK, let's repeat this scene. Try to imagine all of the details of this scene. Remember to signal me with your finger when you feel that the image is clear (read the same scene to the student).

Let's begin (start the tape recorder).

IMPORTANT: After the first and the fourth sessions give the student a short form of the imagery questionnaire.

Instructions for the Covert Modeling Group

Session 1

Before we start, I would like to explain to you what we will be doing for the next four sessions. It has been found that if people practice through their imaginations, visualizing another person facing a situation in which they themselves would be afraid or anxious, they are less likely to be afraid in that situation the next time they face it. That is why, over these four treatment sessions, you will be asked to imagine many scenes in which another person is being either tested or evaluated. For each time that we meet you will be asked to imagine a different person, or model, in the scenes I present.

For today I would like you to choose a person to imagine who is similar in age to you, and of the same sex. This can be either a friend, relative, acquaintance, or a person you have made up completely. The important thing is that you be able to visualize this person clearly in each of the situations presented.

I will now give you some time to imagine someone you would like to be your model for today's treatment scene. Remember, the model must be of your same sex, and similar to your age. (Pause) Now that you have chosen your model, you can imagine this model in the practice scene I will read you. It is important for you to imagine each scene as

vividly as possible. In order to do this we will follow these steps: You will listen to the scene I read to you with your eyes closed. As I read this scene you will try to visualize both the scene and the model as vividly as possible. After I have finished the scene, and you feel that the image is very clear, you will signal me by raising your finger. You will keep that image as clear as possible until I ask you to open your eyes. I will now read you the scene (read the subject the following scene).

"Imagine a nice restaurant. At a table in the center of the restaurant sits a couple. They both order steak. In a while the waiter returns to the table with their orders. They nod their approval, and send him on his way."

"Imagine the model you have chosen sitting at the table. He or she cuts into the steak and finds it too rare. He or she immediately calls the waiter over and asks to have the steak taken back to the kitchen."

That was very good! Any questions? OK, let's try this scene one more time. I will read it to you again. Like the last time you will signal when the image is clear, and hold that image until I ask you to open your eyes (repeat scene).

Now you are ready to begin the treatment scenes. I will play 8 scenes which have already been recorded on the

tape recorder. You are to imagine the model you have practiced in all 8 scenes. Any questions? OK, let's begin (turn on the tape recorder).

Session 2

Before we go on to the treatment scenes, let's start with a practice scene. Today you will be imagining a different model than you did last week. Today I would like you to imagine a model who is both older than you and of the opposite sex. This can be either a friend, acquaintance, relative, or a person you have made up completely. The important thing is that you be able to visualize this person clearly in each of the situations presented. I will now give you some time to imagine someone you would like to be your model for today's treatment scene. Remember the model must be of the opposite sex, and older than you.

Now that you have chosen your model I will give you a chance to imagine that model in the practice scene I will read you. Just as we did the last time, I will read the scene, and with your eyes closed you will try to imagine that scene as vividly as possible. When you have imagined it clearly, signal by raising your finger. Then hold that scene until I tell you to open your eyes. Let's begin (read the student the following scene).

"Imagine a crowded city bus. It is rush hour and the bus is full of businessmen, students, and shoppers.

The bus makes a stop and into the bus walks an elderly man. Imagine the model you have practiced as a passenger on this bus. He sees the man, and promptly offers him a seat."

Let's repeat this scene. Try to imagine all of the details of the model, and the situation as clearly as possible (read the scene again).

Any questions? OK, now we can begin with the treatment tapes (start the tape recorder).

Session 3

Before we go on to the treatment scene, let's start with a practice scene. Today you will be imagining a different model than you did the last session. Today I would like you to imagine a model who is similar in age to you, but of the opposite sex. This can be either a friend, acquaintance, relative, or a person you have made up completely. The important thing is that you be able to visualize this person clearly in each of the situations presented.

I will now give you some time to imagine someone you would like to be your model for today's treatment scene. Remember the model must be of the opposite sex, and of the same age as you.

Now that you have chosen your model, I will give you a chance to imagine that model, in the practice scene I will read you. Just as we did the last time, I will read the

scene, and with your eyes closed you will try to imagine that scene as vividly as possible. When you have imagined it clearly, signal by raising your finger. Then hold that scene until I tell you to open your eyes. Let's begin (read the subject the following scene).

"The scene is a crowded grocery store. It is a Sunday, and everybody has come to do their weekly shopping. As a woman leans over to get a box on a bottom shelf, her wallet drops out. She is not even aware that it is gone. Imagine the model you have chosen as a customer in this market. He or she notices the wallet fall, and picks it up and returns it to the woman."

Let's repeat this scene. Try to imagine all of the details of the model, and the situation as clearly as possible (read the scene again).

Any questions? OK, now we can begin with the treatment tapes (start the tape recorder).

Session 4

Before we go on to the treatment scenes, let's start with a practice scene. Today you will be imagining a different model than you did last week. Today I would like you to imagine a model who is older than you, and of the same sex. This can be either a friend, acquaintance, relative, or a person you have made up completely. The important thing is that you be able to visualize this person clearly

in each of the situations presented. I will now give you some time to imagine someone who you would like to be your model for today's treatment. Remember the model must be of the same sex, but older than you.

Now that you have chosen your model, I will give you a chance to imagine that model in the practice scene I will read you. Just as we did the last time I will read the scene, and with your eyes closed you will try to imagine it as vividly as possible. When you have imagined it clearly, signal by raising your finger. Then hold that scene until I tell you to open your eyes.

Let's begin (read the student the following scene).

"Imagine the scene as a drug store. It is very crowded in the store. You see the customers lined up at the counter, checking out their goods. Imagine a customer at the counter. Receiving his change he notices that he is missing a dollar. Imagine the model you have chosen as that customer. He or she tells the cashier that he has been short-changed and asks her to recount the amount."

Let's repeat this scene. Try to imagine all of the details of the model, and the situation as clearly as possible (read the scene again). Any questions? OK, now we can begin with the treatment tapes (start the tape recorder).

IMPORTANT: After the first and last session give the student the long form of the questionnaire.

APPENDIX C

MODELING SCENES

For convenience sake, all of these scenes were written in the masculine gender. Both the feminine and masculine gender were used in the actual recordings, and were played dependent upon the subject's sex and the sex of the model imagined.

Treatment Scenes: Session 1

(1a) It is the morning of a big exam. Imagine a bedroom. On the desk you see books opened, with notes and charts scattered all over the desk. In a cup on the desk is some stale coffee. The room looks as if a student has been studying all night for the exam. In bed remains the student, not wanting to get out of bed. His head is pounding.

(b) Imagine the model you have practiced as that student. Instead of staying in bed, the model gets up, showers, and readies himself for class and the exam.

(2a) The scene is a classroom, the day of an exam. Most students are quiet, awaiting the arrival of the professor. One student exclaims to her friend that she has been studying for this exam for a week, and she still does not think she knows the material. Several of the students

standing around hear her, and begin to doubt their own knowledge.

(b) Imagine a student in this class. He hears the girl's announcement, and begins to wish that he did not have to take the exam that day. The model tells himself, however, that he will do the best he can, and not concern himself with the girl's comment.

(3a) It is three days after an exam. Today is the day that the grades are to be posted on the professor's door. The students crowd up to the door, attempting to see their grades. Although the grades are not listed by names, most of the students are sharing their scores with the other students who are waiting.

(b) Imagine a student coming to see his scores. He sees the crowd of students around the door, and hesitates, thinking that he would like to come back later, when there would be fewer students around. Imagine the model you have practiced as that student. He decides, that it would be too inconvenient to come back, and goes ahead to look at his score.

(4a) It is an ordinary day in Spanish class. Imagine a classroom with posters of foreign countries lining the walls. On the blackboard is a notice left by the professor. It says that the assignment for the day will be an oral presentation by each student, using the vocabulary

they had studied the night before. The students entering the class are quite surprised.

(b) Imagine the model you have practiced as a student entering the room and seeing the notice on the blackboard. Although he had studied his vocabulary, he fears that he will forget the words in front of the class. He decides that the longer he waits for a turn, the more nervous he will be. Instead of waiting to be called upon, he volunteers to go first.

(5a) It is midterms time at the University. Imagine a class in which the professor is handing out notes to the students, telling them their present grades, and whether he considers that they need extra help in the subject. He hands out the notes one by one to the students. Imagine a student in the class receiving a note from the professor stating that he could use extra help in the class. His best friend in the class asks him how he is doing.

(b) Imagine the model you have practiced as that student. While he would like to shrug off the question and say fine, he decides instead to tell his friend about the note and his standing in the class, and asks his friend for help.

(6a) The scene is a lecture hall the day of an examination. The students are being handed the exams row by row. The TAs have started at the bottom of the lecture hall. As the tests are handed out, the feelings of

expectation rise in the students who are seated in the last rows. To them it seems like it has taken a long time for the tests to be distributed and that the other students are probably far ahead.

(b) Now imagine the model you have practiced as a student in the back of the lecture hall. He is beginning to become very anxious to see the test. As he receives his exam he tells himself that it is silly to worry about any advantage the other students might have, since they will be the first to pass in their exams. He begins to work on his exam, not thinking about the performance of the other students.

(7a) The scene is a placement office at the University. Many students are coming to the office to interview for jobs with business firms. At the reception desk, the interviewers are handed a test to complete, concerning their general business knowledge. Most of the students were not expecting the test and were quite surprised. Imagine a student receiving his test and seeing many questions that he does not know the answer to.

(b) Now imagine the model you have practiced as that student. Although he does not know some of the answers he finishes the test and decides to go through with the interview despite his deficiencies.

(8a) Imagine a classroom of students writing an essay exam. In the room next door, a film is being shown.

While the sound is not loud, if the students were to listen very carefully they would be able to hear the dialogue of the film. Some of the students are restless, particularly when the sound in the next room gets louder. Imagine a student in this class. He is in the middle of writing his first essay, and is beginning to feel very distracted. He is getting uptight and finding it harder to concentrate on his essay. He thinks that he might fail the exam if he keeps this up.

(b) Imagine the model you have practiced as that student. He decides to stop thinking about failing and merely concentrate on the exam. He finds that he can now concentrate without the film bothering him.

Treatment Scenes: Session 2

(1a) The scene is a professor's office. Imagine the professor sitting at his desk, looking over the tests he will soon be reviewing individually with each student in his class. It is well known among students that he demands quality and is a hard grader. Several students are congregated outside of his door, deciding among themselves who will be the first to talk to him about their paper. Imagine a student entering the professor's office. He has decided to be the first to see the professor.

(b) Now imagine the model you have practiced as that student. He tells the professor that he is not only

interested in his test grade, but would also be interested in constructive criticism of his work, and any advice for the future exams.

(2a) Imagine a class of students who have been given a take-home exam. They have been allowed one evening to complete it. Most students in the class were anticipating a strenuous evening, and had arranged their schedules so that nothing would interfere with their work. Imagine a student in this class. He is beginning to work on this exam when he receives a call from a friend asking him to dinner.

(b) Imagine the model you have practiced as that student. Although he would like to get away for an hour, he knows that he will need all of the time he can get to do a good job on the exam. He declines the offer from his friend, and continues to work.

(3a) It is the day of a big psychology exam. Imagine the students sitting in rows, working on their tests. People, one by one, are finishing their tests and leaving the lecture hall. Several students are left working on their tests. They occasionally look up, noticing another student leaving.

(b) Imagine the model you have practiced as one of those students left working. At first he seems concerned over all of the students leaving before him, but then he

glances at the clock and notices that he has plenty of time left.

(4a) It is the day of a quiz in a statistics class. While some of the students did well on the first exam, other students did not do well at all. All of the students are a little nervous for the exam, but those who did not do well on the other exam, know how important this exam is for their grade. Imagine a student who did not do well on the first exam. He is very apprehensive about the exam.

(b) Imagine the model you have practiced as this student who is very nervous. When he gets his exam he tells himself that he can only take one test at a time, and therefore will not worry about the last exam as he takes the one today. The student starts working on the exam calmly.

(5a) Imagine a classroom of students at the University, taking a midterm exam. The professor has told them that they would receive a multiple choice exam. While the majority of questions are multiple choice, on the last page there is an essay question. All of the students are quite surprised when they see this last question. Imagine a student working on this exam. As he turns the last page and sees the essay question, his mind goes blank.

(b) Imagine the model you have practiced as this student. Instead of "freezing" he takes a deep breath,

stretches his muscles and is able to begin working on a sketchy outline of the essay.

(6a) Imagine this scene to be in the school dining hall. All around there is a buzz of conversation, as people are discussing with their friends the events of the day. Over the crowd, however, can be heard the voice of a student who is very distressed about a test he has taken. He talks on and on about the difficulty of the test and his own poor performance. Imagine someone sitting at a table next to this student. The student at the table becomes distressed also, because he knows that that very same night he has to begin studying for his midterm exams.

(b) Now imagine the model you have practiced as this student. Even though his exams are soon, he decides that it would be silly to get upset now, and he excuses himself from the table. He returns to his dorm room and begins reviewing the material calmly.

(7a) Imagine this scene to be a classroom the day of a chemistry exam. The answers to the questions must be very precise, and many students in the past have lost points by making very simple mistakes. The professor is encouraging the students to read over each of their answers carefully before handing in the test. Imagine a student taking this exam. The student is so relieved to finish this difficult test, that when he starts to check it over he

finds that he is unable to concentrate anymore, and his mind goes blank.

(b) Imagine the model you have practiced as this student. Rather than giving up, he sits back, takes a deep breath and relaxes a few seconds. He then begins to check over his answers with a fresh mind.

(8a) Imagine a student's room. There are papers scattered all over the room. It is a few hours before the student who lives in this room must give an oral presentation to his class. Imagine the student working on the presentation. Looking over all of the material he has, he begins to feel very apprehensive about giving the presentation. The thought crosses his mind to call in sick for his class.

(b) Imagine the model you have imagined as that student. He realizes that calling in sick would not be a good solution. So instead he gathers his notes and spends the next hour rehearsing the presentation.

Treatment Scenes: Session 3

(1a) Imagine this scene as a college orientation meeting. Students are told that after a 15 minute break, they would be given a general intelligence and achievement test. During the break there is much discussion among the students on how important this upcoming test will be for

their future placement in college classes. Many of the students are quite nervous about the test.

(b) Imagine the model you have practiced as one of the students who will be taking the test. Although many of his friends are worried, he says that he has decided not to scare himself about how the test will be used, but only to do the best he can.

(2a) The scene is an English class. It is being taught by a professor who is not only very knowledgeable in the subject, but also has very high demands for his students. One of these demands is that students participate actively in class. While most students find it very hard to speak up in this class, they are still required to say something. Imagine the feeling of a student in this class.

(b) Now imagine the model you have been practicing as a student in this class. While he is usually quite inhibited in class, today he hears the professor ask a question that he knows the answer to. Without even thinking he raises his hand, and gives the answer.

(3a) It is the day of a big psychology exam. Imagine the students sitting in rows, working on their tests. People, one by one, are finishing their tests and leaving the lecture hall. Several students are left working on their tests. They occasionally look up, noticing another student leaving.

(b) Imagine the model you have practiced as one of those students left working. At first he seems concerned over all of the students leaving before him, but then he glances at the clock and notices that he has plenty of time left.

(4a) Imagine that it is the week before an exam. The teacher of the course decides to leave the class period open for review. Since no one has had any questions, she is beginning to review a very complex theory. There are several formulas which must be memorized. Many people in the class are looking confused. Imagine a student sitting in class, thinking that he does not understand all of the material, and wondering how he will remember it for the exam.

(b) Imagine the model you have practiced as this nervous student. He decides to review a little of the material each night before the exam, and thus avoid cramming in all of the difficult facts.

(5a) It is the week after midterms. The scene is a classroom, where a course required for all psychology majors is being held. The professor is discussing the grading system, and telling several of the students that they must earn an A or a B on their next exam, in order to remain in the major. Imagine the feelings of a student in this class who has just discovered that he must earn an A on the next test in order to use this course toward his major.

(b) Imagine the model you have practiced as this student. He considers dropping the course and taking it next semester. He decides however that he will be able to pull himself through if he studies hard and does not scare himself.

(6a) Imagine a classroom of students writing an essay exam. In the classroom next door, a film is being shown. While the sound is not loud, if the students were to listen very carefully they would be able to hear the dialogue of the film. Some of the students are restless, particularly when the sound in the next room gets louder. Imagine a student in this class. The student is in the middle of writing his first essay. He begins to feel very distracted. More and more he is getting uptight and finding it harder and harder to concentrate on his essay. He thinks that he might fail the exam if this keeps up.

(b) Imagine the model you have practiced as this nervous student. Suddenly he decides to stop thinking about failing and merely concentrate on the exam. He finds that he can now concentrate without the film next door bothering him.

(7a) It is the class period after a big exam. Several students in the class had missed the exam because of illness and must ask the professor for a make-up exam. It is rumored that he frowns on make-up exams and makes them more difficult than the other exams. Imagine the

student approaching the professor to ask for his exam. He can see that it is a difficult test.

(b) Now imagine the model you have practiced as this student. Although the test is difficult, he sits down and immediately begins working, without worrying about the outcome.

(8a) The scene is the University library in the middle of final exams week. The library is filled with students. While most students are studying individually, some are talking and laughing nervously with their friends. Some students are annoyed by this laughter and noise. Imagine a student seated at a table in the library. He too is distracted by the noise, and his own thoughts about the exam.

(b) Now imagine this person as the model you have practiced. He has decided to forget the exam, and merely concentrate all of his attention on the subject matter. He continues to study more intensely than before, and soon the background noise no longer bothers him.

Treatment Scenes: Session 4

(1a) The scene is a classroom. Imagine the professor handing back exams to the students. The students are asking each other how they have done on the exam. Some students look very happy, while most of the class appears

to be disappointed. Imagine one of the disappointed students.

(b) Now imagine the model you have practiced as that student. While he would like to forget about the exam and go home, instead he approaches the professor after class and asks if he can make an appointment to go over the exam with her.

(2a) Imagine a room full of students taking a very long, but precisely timed intelligence test. The results of this test will determine their chances of getting into graduate or professional schools. Looking around the room one can see the students glancing up at the clock occasionally, working as rapidly as they can to complete the exam. Imagine a student taking his exam. The student glances at the clock and realizes that he has very little time left and over a page of questions to answer.

(b) Now imagine the model you have been practicing as that student. He begins to panic, until he remembers that very few people are able to finish the complete exam. He continues working rapidly, and is able to complete several more questions before time is called.

(3a) The scene is a lecture hall. Students are receiving their semester exams. The test is multiple choice. As the students look over the pages, they realize that it is not as simple an exam as many of them had expected. Many of the questions could be answered with

several of the choices given. The students will have to choose the best answers. It is a test which is going to require a lot of thought.

Imagine one of the students taking the test. He has come across one of the most difficult questions. As he mulls over the question, thinking through the different possibilities for an answer, he realizes that he is spending far too much time on only one question.

(b) Now imagine the model you have been using as this student. He decides to move on to the other questions and do as well as he can on those, and to come back to the difficult question if he has time.

(4a) It is a few minutes before an exam. Students are milling around in the hall waiting for the doors to the room to be opened. Some students are reviewing their notes quickly, while others are smoking one last cigarette, or talking to their friends. One of the students waiting wonders if he should take one last look at his notes.

(b) Imagine the model you have practiced as this student. He decides not to since cramming would probably only make him more nervous. Instead, he decides to step outside for a few minutes of sunshine and fresh air.

(5a) Imagine a classroom of students being handed back an exam. There are many questions on the exam. As they receive their individual paper, each student checks it closely to make sure that the grade on the test is what

they deserve. The professor of this class does not like students to question his grading once he has recorded it in his book, and this is their chance to find any mistake.

Imagine a student in this class. As he examines his paper, he notices that an answer has been marked wrong which he is sure is actually right.

(b) Now imagine the model you have practiced as that student. While he is somewhat hesitant to approach the professor, he knows that it would be nice to have the points. The model raises his hand and asks the professor if he could look over this particular answer.

(6a) Imagine this scene as in the University library. Even though it is mid-terms time, many students are milling around visiting friends, or discussing their upcoming exams. Those students sitting at the table are unable to study due to the noise. One of those students in the library has a test the next day. Although he knows that he has much more to study, he is so nervous about this test, that he feels he would like to go and talk to a group of his classmates at a table across the room.

(b) Imagine the model you have practiced as this student. He decides that instead of visiting them now, he will finish reviewing what he must for the test and then go visit them.

(7a) It is a history class. Imagine the professor breaking the class into four sections. Each section will

discuss a topic, and one member of the group will report at the end to the whole class. There are approximately 60 people in the class. The professor is getting ready to announce who the leaders will be. Imagine a student in this class. His name has just been announced as a group leader. At first his stomach drops at the thought of talking in front of all of those people, and he considers letting someone else do it.

(b) Now imagine the model you have practiced as this student. Instead of giving up, he does represent his group, and summarizes their discussion in front of the class for about 15 minutes.

(8a) It is the morning of a big exam. Imagine a bedroom. On the desk you see books opened, with notes and charts scattered all over the desk. In a cup on the desk is some stale coffee. The room looks as if a student has been studying all night for the exam. In bed remains the student wanting to get out of bed. His head is pounding.

(b) Imagine the model you have practiced as that student. Instead of staying in bed, he gets up, showers, and readies himself for class and his exam.

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