Individual contracts between the student and instructor are used as a means of modifying behavior in reading and study situations. Desirable behavior is described, and suitable performances of such behavior are outlined. Adult students agree to attempt to modify their behavior during a designated amount of time in order to meet their contracts. The rationale for such a program is that an individual can best modify his behavior when he knows what he is to do, when he is relaxed and free from stress, and when he finds the changes he is asked to make to be personally desirable. It is hoped that such a process might combat the disenchantment with classroom activity which is often a cause of failure. Graphs and references are included. (MS)
RELAXATION AND DESENSITIZATION IN STUDY BEHAVIOR MODIFICATION

Let us imagine a student comfortably seated in front of a book studying for a course. As he is studying he thinks about an upcoming examination. What happens? The thought may elicit some of the panic which he has known in the past. He might become tense, his stomach may contract, his eyes dilate, and his palms begin to perspire.

Unfortunately, the very book he is studying will become associated with the panic reaction. By the process of stimulus generalization, the book, the desk, and in fact, the whole study environment becomes a stimulus for a mild panic response.

What does one do when confronted with an object that for one reason or another has become mildly unpleasant? We might expect that student to leave the book as soon as possible. He might physically get up and go to the ice box for a snack, or go out to the lounge for a "quick smoke break." Faced with a textbook which has become unpleasant, we might expect the student to do anything that gets him physically away from the book, the table, in fact, the whole study situation.

Relaxation

How then to overcome the problem? The basic treatment strategy is to arrange things so that when our student is thinking about studying or taking an exam, he no longer becomes tense and panics. The approach is to teach a new

1Ruthlessly adapted from Test Panic, Daydreaming and Procrastination, by David Wark and Sue Johnson, to be published by the North Central Reading Association. Copies of the full paper available from David Wark, 190 Coffey Hall, University of Minnesota, St. Paul, Minnesota 55101.
response to the book, or test, or study room - a response which counteracts the physical tension of anxiety.

Relaxation is that response, antagonistic to anxiety. A deeply relaxed person cannot be anxious. The muscular tension of anxiety and the muscular calm of relaxation are incompatible. They cannot both occur at the same time in the same person. Thus, a person relaxed in the presence of an anxiety provoking stimulus will not experience anxiety. The first step then in overcoming test anxiety, daydreaming, and procrastination is to teach deep muscle relaxation. The procedure will be demonstrated at the workshop.

Desensitization

The next step, once the student can relax sufficiently, is to help him associate that relaxation with a book, test, or a study situation that is producing some anxiety. One employs a desensitization hierarchy or list of increasingly unpleasant situations. The bottom item in the hierarchy is one which produces very, very little anxiety when the student is asked to imagine it. The top item in the hierarchy is the test, a book, or an examination which is maximally frightening. Fortunately, there is evidence that a student need only think of an anxiety provoking situation, while he is relaxed, in order to reduce the emotional effect of that situation. But it is almost never sufficient to have the student relax and picture the top item in his hierarchy. Rather, he has to work up to it, starting with the least frightening situation and progressing.

Case Example

Juanita appeared to have a great deal of trouble talking in class. On the first night of class she could only answer with a barely audible whisper and had deep facial blush when her name was called in the roll. She appeared to be experiencing a great deal of discomfort in the class on successive evenings. In individual counseling she presented a four step hierarchy. These were the
items presented to her for individual desensitization after class hours on April 7, 14, and 21. By the 28th of May, not only did she answer questions, but twice volunteered comments which included an evaluation of the instructor. She made these evaluations unblushingly and unbidden. This was a tremendous improvement for her.

**TALKING IN CLASS HIERARCHY  Juanita**

**Hierarchy**

1. Only professor present when you raise a question.
2. Students present when you raise a question.
3. Only professor present when you can't answer a question.
4. Students present when you can't answer a question.

<table>
<thead>
<tr>
<th>Date</th>
<th>Class Behavior</th>
<th>Post Class Relaxation Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/7</td>
<td>No talking in class.</td>
<td>See self answering question. &quot;It was child's play.&quot;</td>
</tr>
<tr>
<td></td>
<td>Blushed during roll call.</td>
<td>See self raising hand, asking question. Know answer.</td>
</tr>
<tr>
<td>4/14</td>
<td>Answered general question to class. Raised hand.</td>
<td>1. See other students in room - PANIC.</td>
</tr>
<tr>
<td>4/28</td>
<td>No relevant behavior.</td>
<td>3. See self raising hand and asking. Unknown answer.</td>
</tr>
<tr>
<td>5/5</td>
<td>Asked questions with known answer. Raised hand.</td>
<td>No further desensitization sessions.</td>
</tr>
<tr>
<td>5/12</td>
<td>1. Volunteered comments twice.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Asked questions twice.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Answers not known. Raised hand.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No blush.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Evaluation of instructor. Did not raise hand. Did not blush.</td>
<td></td>
</tr>
</tbody>
</table>
CONTRACTING AND SELF MANAGEMENT IN STUDY BEHAVIOR MODIFICATION

Steps in Behavior Modification of Study Skills

1. Specify important behavior, often working backwards.
2. Develop measures of effect, usually rate of performance like words/minute or pages/hour.
3. Establish cost or pay off rules.
4. Sign contract.
5. Study, keeping track of effects.

Sample Study Systems Contract

I, ____________________________ contract to do the following:

1. Complete the following behavior units by the assigned deadlines for ____.

<table>
<thead>
<tr>
<th>Behavior Unit</th>
<th>Deadline</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
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<tr>
<td>3.</td>
<td></td>
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<tr>
<td>4.</td>
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</tbody>
</table>

2. Perform study behaviors in: ____________________________.

3. Pay off rules:

<p>| | |</p>
<table>
<thead>
<tr>
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<th></th>
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<tbody>
<tr>
<td>1.</td>
<td></td>
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<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>

Signed,

_________________________  ___________________________
Student                      Date

_________________________  ___________________________
Contract Overseer             Date

_________________________  ___________________________
Witness                      Date

_________________________
Witness


Case Studies

NAME: SISTER MARGARET
BEHAVIOR: INCREASE RATE
CONTRACT: FOR 1 PAGE TEXT UNDERLINED READ 2 PAGES RECREATION

![Graph showing words per minute over 15 minute intervals, with pre and under contract periods indicated.]

NAME: WAYNE
BEHAVIOR: SPEND 60 MINUTES IN STUDY, OR ELSE WEAR OLD SPORT COAT TO WORK NEXT DAY

![Graph showing minutes in study, with co-workers complained about old sport coat indicated.]

STUDY SESSIONS
NAME: JANE

BEHAVIOR: FASTER READING

CONTRACT: FOR EVERY 20 PAGES, WALK DOG 1 MILE

NAME: JANE

BEHAVIOR: FASTER READING

CONTRACT: A FOR 40 PAGES, WALK DOG 1½ MILES
B IF RATE BELOW 300 W/M, MUST GAIT DOG AROUND BLOCK
NAME: MARY

BEHAVIOR: FASTER STUDY RATE

CONTRACT: IF RATE GOES BELOW 300 W/M THEN NO SMOKING FOR NEXT HOUR

NAME: TERRY

BEHAVIOR: START DOING HOMEWORK

CONTRACT SIGNED IN CLASS 11/18: 5 PAGES TEXT FOR 15 MINUTES OF MUSIC
Bibliography


Journals containing relevant articles

**Behavior Therapy** Private Subscriptions $14.
Academic Press, Inc.
111 5th Avenue New York, 10003

Members of Association for Advancement of Behavior Therapy pay $9 for membership
Write: Dorothy Susskind
Association for Advancement of Behavior Therapy
415 East 52nd Street New York, 10002

**Journal of Applied Behavior Analysis** Private Subscriptions $8, $4 for students
Write: Mrs. Mary L. Sherman
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Lawrence, Kansas 66044