Coping With Stress and Anxiety

TI 015 - Thematic

By

J. Eugene Knott and George Kriebe

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By J. Eugene Knott and George Kriebe

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Introduction

This program is designed to assist people to manage better the influence of various stressors in their life. It is aimed at enabling participants to identify, monitor, and cope successfully with both generalized levels of tension and worry, as well as with situationally–generated anxiety. In particular, the program to follow is a systematic way of learning a very important skill for dealing with a universal human phenomenon bearing on all social interaction — stress, and its manifest form we call anxiety.

A special, optional segment of this program will address the issue of academic stressors and the performance anxieties that frequently are found in student life in a campus milieu. Study and test taking aids are provided based on the SQ3R system.

“Coping with Stress and Anxiety” is a structured group experience that has the following specific goals:

(a) To give participants an understanding of the concepts and dynamics of stress and anxiety.

(b) To enable individuals to identify and recognize sources and manifestations of stress and anxiety in their daily living (including academic milieu).

(c) To provide strategies for coping with stress and anxiety, and to allow participants to gain practical experience in using them.

The target audience is basically an individual who describes him- or herself as “anxious.” Experience with self-referred participants over several years has yielded very few self-described “anxiety-burdened” individuals, and such individuals always have exhibited more general and obvious dysfunction interpersonally. Thus pre-screening would appear to be unnecessary, and, where
inappropriately enrolled group members appear, they are somewhat easily and helpfully urged to seek another form of assistance, usually therapy.

The best arrangement thus far for this group experience appears to be five weekly 90-minute sessions, with six to eight participants, both males and females. A maximum of 12 participants is recommended. The ideal is arrived at by restricting the group’s size to one that allows for comfort in a carpeted, quiet room, with adequate floor space for all members to be able to lie on the floor without being too near one another.

As noted earlier, this group program has a couple options in the course of its delivery which give the leader flexibility to abbreviate or extend the experience, or to focus intensively on particular aspects of the topic. Several appendices, too, are included in the manual that provide a variety of working materials, and some suggested “patter” for leader use. Also, a number of references for further information are cited at the end of the manual.

Note that a electromyograph or EMG is used in Session II.
Session I

A. Introduction

Introduce leaders and group goals (which are spelled out in the Introduction to this manual). The leader then asks participants to introduce themselves, modeling a simple format, such as: “I’m _________ (name), a _______________ (freshman, sophomore, junior, etc.), majoring in _______________, and I’m here because ____________________.

B. Pre-Testing

The leader briefly describes the rationale for and uses of the pre/post measure format (as feedback to leaders, demonstration of growth, etc.), then administers one or more of the paper/pencil instruments selected (see Appendix A for suggestions).

C. Overview of sessions

The leader describes what each session of the workshop will include. It should be sufficient to read the statements about each session included in the Table of Contents, with one or more explanatory sentences.

D. Mini-lecture on stress, anxiety, and their effects on behavior

Workshop training begins with an introductory discussion of the concepts of Stress and Anxiety. Appendix B summarizes this mini-lecture for participants and can be used as a handout.
Mini-Lecture on Stress, Anxiety and their Effects on Behavior

DEFINITIONS

**Stress**: Any action or situation that places special physical or psychological demands upon a person (no valence — see below).

**Anxiety**: Individual’s particularized response to stress (may have positive or negative valence — see below and Webster: “uneasy” vs. “eager desire”).

Introduce the following **paradigm** to describe the *interaction* of stress and anxiety.

<table>
<thead>
<tr>
<th>Paradigm:</th>
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<tbody>
<tr>
<td>Anxiety</td>
</tr>
<tr>
<td>(-) &lt; --------------- &gt; (+)</td>
</tr>
<tr>
<td>Stress</td>
</tr>
</tbody>
</table>

To clarify this, show the cartoon illustration in Appendix C. The **stress** is the roller coaster ride, a situation that places special demands on its riders. The demands are, *per se*, neither good nor bad. Each individual rider may perceive his or her own **anxiety** positively (“eager desire”) or negatively (“uneasiness”).

Since this workshop focuses on anxiety, its further elaboration will be useful.
ANXIETY is...

a) A universal phenomenon

b) A normal, inevitable, and often useful occurrence

c) Essentially a learned phenomenon with three main attributes:

<table>
<thead>
<tr>
<th>“WORRY” (mental)</th>
<th>1. <strong>Feelings</strong> of apprehension (in absence of real threat).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Interference with <strong>thinking</strong> (especially the ability to organize thoughts toward coping).</td>
</tr>
<tr>
<td>“TENSION” (physical)</td>
<td>3. <strong>Physiological</strong> changes (internal bodily changes following an “alarm” reaction with increased secretion of adrenaline / norepinephrine, including: rapid breathing, rapid heartbeat, hyperactive gut -- vomiting/diarrhea, perspiration, urge to urinate, increased muscle tension, diminished sleep).</td>
</tr>
</tbody>
</table>

d) Of two primary forms

1. **Situational**: a specific reaction to a particular type of performance demand.

2. **Generalized**: somewhat “free floating”; a socially inhibiting level of anxiety
Two interactive models of anxiety with implications for managing the anxiety.

I. Anxiety as a measure of the distance between one’s expectations and perception of performance.

Interpretation: if you expect little of yourself, you can live up your expectations. There is mild/moderate anxiety, since there is uncertainty that you will live up to expectations. This anxiety is helpful motivation (see below). The higher expectations rise above perception of ability to perform, the more anxiety, which begins to paralyze and further diminish performance. (Implication is to move one step at a time and not expect to start at the top).
II. *Anxiety as a motivating force.*

**Interpretation:** with low/no anxiety, there is little motivation to act. With high anxiety, one becomes paralyzed (with feelings of apprehension, impaired thoughts, physiologic changes), panicked, and may give up. With a moderate amount of anxiety, one is stimulated to act as efficaciously as one can.
E. Explanations of Anxiety Management Methods

Anxiety Management Training is:

- Designed to teach one how to relax and better monitor levels of anxiety
- A systematic way to learn to control one’s distressing thoughts and the tenseness that accompanies them
- A process that involves learnable skills
- A skill-building experience that requires practice

F. Autogenic Deep Muscle Relaxation Discussion

To introduce autogenic deep muscle relaxation, a modification of the Jacobsen (1938) technique popularized by Wolpe (1969) is utilized. In the first instruction, the “height of tenseness’ paradigm is exploited to later advantage by covering the six major muscle groups that are to be “taught to relax.” These are

1. face and head (scalp) muscles;
2. neck and shoulder muscles;
3. arms and hands;
4. chest, stomach, and abdominal muscles;
5. back and buttocks; and
6. legs and feet.

The sequence of training is always as above, going from head to toe, so to speak.

Then demonstrate the technique, beginning with some exaggerated tensing in each of the muscle groups. Note that participants should avoid holding their tension too long and thus avert “cramping,” the extreme opposite (to relaxation) physical state. The exercise provides a sense of contrast and enables group members to attain a feeling of discrete muscle control—a necessary adjunct to achieving deep muscle relaxation.
Following this, which takes about five minutes, the group is directed once again—this time much more slowly—through the sequence of muscle groups, only **without any tensing**. The goal of this exercise is to begin the process of self-initiated relaxation and in doing so to lay the foundation for enhanced self-control of levels of physical tension in the body. The integrity of the mind and body influencing the overall state of anxiety in a person has already been discussed in this session, and this very important phase of the program provides the first physical experience of increased relaxation and control of one’s tenseness. Appendix D is a reprint of the directions for relaxation offered by Lazarus (1971) to instruct his clients in this way and can be used as a handout to guide participants in their homework.

Later rehearsals will embellish the basic method with several additional methods for deepening the relaxed state still further. Throughout the relaxation training, an important and very effective technique for relieving tension is the use of deep breathing, especially a variation of the so-called “cleansing breath” as borrowed from prepared childbirth education. We use a form we call the 8–count (deep breath). Simply, it involves teaching the participants to inhale (through their noses unless physically obstructed) for 3 slow counts, thus ... 1 ... 2 ... 3; and then even more slowly, to exhale through slightly parted lips for five more counts thus: 4 ... 5 ... 6 ... 7 ... 8! This procedure is used at the beginning of the autogenic muscle relaxation for each different muscle group as outlined earlier. In itself, the 8–count deep breath can prove extremely helpful in bringing out a reduction of felt tenseness.

This initial practice, which takes about 15 to 20 minutes, is best followed with a partial “homework” assignment, as the details seem to be grasped best if stated at this point and summarized briefly again at the session end. Essentially, the group members are told to practice at least daily (and preferably twice a day) the relaxation exercise (sans tensing) on their own, using their own thoughts of the sequence to slowly guide them through the muscle groups to a state of deep relaxation. They should be cautioned to void interruptions and distractions during their practice by choosing a time and place where such would be unlikely. Further, it is a good idea to discourage them from waiting until they are tired and ready for sleep, as the risk of not completing the practice is a real one. Also, it’s a good idea to urge them to take the phone receiver off the hook, and not to play any music—at least until they become more skilled at this in later weeks. Sometimes, persons will report that they feel the need for an external
vocal stimulus in the form of taped relaxation instructions, particularly at the outset, and a couple of prerecorded cassettes of the leaders giving relaxation instructions may be handy for loan at this point.

**G. Homework**

Repeat the “partial homework assignment” discussed above in Section F and handout Appendix D to guide them.

Also ask participants to begin to identify situations that lead them to feel anxious, and to notice and remember associated feelings.
Session II

A. Homework check and “tension keys”

In this second session, the participants are asked to comment on their experience with the daily practice of deep muscle relaxation, which they were assigned for homework. This is also the point at which the concept of “tension keys” is introduced.

Simply put, tension keys are those areas of the body where two related phenomena are most noticeable. One, these are the areas that, in their relaxation practice, were the most difficult of the muscle groups to get relief from a sense of tension. Second, in a related fashion, these “spots” are also the most common sites where stress-induced tension first crops up. These are most commonly areas like the forehead or temples, back of the neck, lower back, stomach or thighs, (although “tension keys” can occur or be identified literally anywhere in the musculature). They’re so named because they can be viewed as the “keys” to successful monitoring and induction of the relaxed versus the tense state. Later in the course of the program, the group members will be able to utilize combinations of breathing and tapping into tension keys as an effective but abbreviated way of becoming quite fully relaxed.

B. Biofeedback instruction and use/demonstration

An option at this point is the use of biofeedback by allowing participants to be connected to an electromyograph or EMG, which measures electrochemical activity in a band of muscle. The most often used muscle is that spanning the forehead (frontalis muscle), although a forearm muscle may be monitored instead.

The purpose of this demonstration is twofold: (1) to exhibit that muscle tension subliminal to the average sensor is still quite present and can be dramatically shown to exist in even an individual who seems most relaxed. This also allows for (2) participants to have an external gauge—usually auditory tracking of the EMG readings, by which to take note of even deeper levels of attainable relaxation.

While time and size of the group usually keep this option to a single demonstration, some agencies with elaborate biofeedback apparatus can enable
several monitorings to proceed simultaneously, thus allowing all the group members to participate. Also, this procedure, as with all the others in this manual, can be utilized quite readily in an individual program for teaching how to cope successfully with stress and tension.

C. Autogenic deep muscle relaxation

At this point, the group is led through another session of deep muscle relaxation, this time with verbal cues and single word imagery added to further build on the relaxation experience. Two particular means for accomplishing this are added in the session. They are, first, the suggestion that the participants are to think of the word “calm” as they inhale each time, and second, to think of the word “serene” as they exhale with each 8-count breath.

A second use of word imagery introduced herein is the recitation of a series of single words after the total body has been relaxed, while participants are still lying down with eyes closed. Sample words used are:

<table>
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<tr>
<th>quiet</th>
<th>peaceful</th>
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<tr>
<td>warm</td>
<td>pleasant</td>
</tr>
<tr>
<td>comfortable</td>
<td>nice</td>
</tr>
<tr>
<td>easy</td>
<td>restful</td>
</tr>
<tr>
<td>tranquil</td>
<td>relaxed</td>
</tr>
<tr>
<td>(and so forth)</td>
<td></td>
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</tbody>
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These essentially positive words can be mixed with some negative ones such as:

<table>
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<tr>
<th>fidgety</th>
<th>stressful</th>
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<tbody>
<tr>
<td>tense</td>
<td>uneasy</td>
</tr>
<tr>
<td>chilly</td>
<td>damp</td>
</tr>
<tr>
<td>unpleasant</td>
<td>uncomfortable</td>
</tr>
<tr>
<td>(etc.)</td>
<td></td>
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However, one should do so only after the group has become fairly adept and capable of returning easily and flexibly to the relaxed state, and leaders should always end on a pleasant word before terminating the rehearsal. At this time, too, continuing homework on relaxation training (using verbal imagery as well) should be assigned. Usually, this is to encourage practice for 20 minutes daily over the next week. Also suggest that about mid-week participants might begin the entire procedure sitting a comfortable floor-to-wall position or in a soft yet firm chair for the rest of the homework sessions.

**D. Lecturette on Ellis “A–B–C” paradigm**

Thus far the techniques used to allay anxiety have been *physical* ones, i.e., those aimed at reducing tension in the body’s musculature. Now, you will introduce a *primary* means for countering the mental part of anxiety, which we’ve labeled “worry.”

To do this, the group is given a handout (Appendix E) and the leader goes over the *Rational Rethinking* schema presented on the sheet. In doing so, a couple of step-by-step examples usually add relevance to the mere presentation of the concept. (An alternative, but infrequently used paradigm for presentation at this time is that derived from Maultsby’s [1973] work of a similar nature. It is referenced at the end of the manual).

**E. Homework: Practice and behavioral goal contracts**

Finally, the leader assigns homework by giving out a behavioral goal contract grid (Appendix F). The participants are told to identify a pair of anxiety-producing situations—one *academic* (labeled A) and one *non-academic* situation (labeled B). They are to state a personal change goal for each, and return with those two items completed for next session.
Session III

A. Homework check and “teaming”

The third meeting begins with a general inquiry about members’ success with the relaxation training homework, probing particularly at their abilities to (a) identify “tension keys”; (b) vary their positions while rehearsing; and (c) use verbal imagery aids.

Following this, the participants are randomly paired or teamed up, with the leader serving as a partner or forming one triad in the event of an uneven number of people.

B. Behavioral goal contracting

Once teams are formed, the leader goes over in some detail the meanings of each of the categories on the contract form on which they have completed two items for each of the two identified anxiety-provoking situations as homework (see Appendix F). Particulars here revolve around such characteristics as making sure the goals are specified in behavioral, i.e., *performance* terms and are feasible. Also, the time frame needs to be set so that the “task(s)” can be attempted within the next week or so, and the particular physical and cognitive strategies for altering one’s behavior toward the desired goal are clearly spelled out, again in feasibly active terms. Lastly, the entire plan for each situation needs to be considered in terms of what “measurable” criteria are to be used to recognize that change has truly occurred.

After outlining these points, the leader should instruct all the members to spend a few minutes completing the contract grids by themselves. Afterwards, the team pairs are to hear one another out concerning the completed material, and to serve as consultants to each other about the various elements in their plan, their specificity, measurability, feasibility, and so forth. The program leader is to serve only as a general resource at this point, available to answer questions anyone might have.

When all the teams have finished checking over each partner’s contract, the group members are to present one of their identified situations aloud to the group, whereupon the leader can suggest any needed refinements as they take
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At the end of this phase, the group members are to sign their own form and date it where it says “Contractor, and date entered.”

C. Relaxation training (with scenic imagery)

The final activity of this session is another deep muscle relaxation sequence, this time with visual or scenic imagery in the form of some guided fantasies added to enhance the elements already introduced. The basic instructions used throughout for inducing relaxation are employed once again, with some verbal imagery throughout, and, in place of the litany of words introduced in the last session, a pair of pleasant, brief fantasies are described after all the muscle groups have been covered. Typically, these are graphic descriptions of environmental settings that are commonly thought of as pleasant, restful and idyllic. Frequently used examples include:

a. A white sandy beach with a cloudless sky, an azure blue ocean gently cresting just within earshot, you basking in the warmth of a noonday sun as a balmy breeze softly wafts across the shore … etc …

b. A cozy fireside setting with logs cracking as the embers burn as your feet, inhaling the smell of mellow smoke from the hearth as you gaze at the snow falling on the windowpane of your mountain retreat cottage after a invigorating morning of brisk skiing … etc …

And so on, with the leader embellishing the entire fantasy scenario to create a restful atmosphere. Use your imagination liberally.

D. Homework

After bringing participants out of the relaxation sequence, homework is assigned in the form of two tasks:

a. To practice using imagery as they continue daily relaxation sessions, and

b. To carry out their behavioral contracts, if possible, prior to the fourth session.
Session IV

A. Homework check

Participants begin this fourth session by joining their partners for an evaluation (in pairs first) of their activities relative to their behavioral contracts. Instruct each person to hear their partner out regarding his or her situations and outcomes.

Then each partner is to present his or her teammate’s experience and his or her (own) assessment of the experience for one (1) of the two situations.

Following this phase, in which anyone can and is urged to ask questions of the “contractors.” each partner is to sign and date the form where indicated if the conditions of the contract have been satisfied. If more time or “trials” are needed, then participants involved should arrange a separate meeting outside the group to do so at a later date within the next few days.

B. “Tension keys” — based on relaxation training

An abbreviated auto-relaxation exercise is conducted at this point, with the leader asking for each member to identify out loud what are his or her particular “tension keys.” Once the group has been surveyed, the leader sets the stage for relaxation practice, but, instead of systematically going through the six muscle groups, the instructions are given to simply using a combination of deep (8-count) breathing and focusing on complete relaxation of their (main) “tension keys.” This is attempted twice, with the group being queried as to the success of this “quick” method of achieving a relaxed state each time. Closing commentary on this aspect then is to encourage practice of this short-cut method, particularly when time and circumstance preclude using the full-blown rehearsal.

C. Biofeedback change demonstration (optional)

This option can be employed as a comparative demonstration of what the overall effects of relaxation training can be. Of course, this segment is at the discretion of the leader, time and equipment allowing, and is conducted as in Session II, only this time as a post-hoc comparison.
C. Stress inventory

An inventory designed to help the group members analyze the influence of “stress” in their lives is administered next (see Appendices G[1], G[2], G[3]). It is scored immediately and a brief group discussion is conducted, using the outcomes and their categorical interpretations as background.

D. Lecturette: Alternative coping strategies

As a sequel to the inventory, participants are then given a brief lecturette on two related topics:

1) Some alternative methods for coping with anxiety (See Appendix H).

2) What you can do about stress (See Appendix I). This part is conducted with the use of a handout.

E. Closure or Homework for Optional Session on Academic Anxiety

Option 1: If final session

The next step depends whether this is the final session or whether an optional fifth meeting on academic anxiety is scheduled. In the former case, the leader should summarize briefly the goals and activities used in the preceding weeks of the program, distribute evaluations (see Appendix J) to be completed without signing — and post-tests (See Appendix A; these should be identified); finally, solicit verbal comments in closing from the group, and adjourn.

Option 2: If Session V scheduled on Academic Anxiety

Or, in the latter case, the Achievement Anxiety Test (See Appendix K) is distributed and participants are told to bring or send them in not later than one day prior to the final session (for scoring).
Session V

A. Mini-seminar on sources of stress in the academic environment

Use the following list to serve as a focus around which participants may discuss the (possibly conflicting) demands which various aspects of their environment place on them. The suggestions following each item may stimulate discussion in the group. However, it is clearly better if the participants themselves can generate and organize the data for this “seminar,” with active encouragement from the leader.

Hopefully, one outcome of teasing out the components of environmental demand sources will be to help participants realize in a more focused way dilemmas they experience as a result of conflicting demands. Participants may find themselves asking questions such as: “Do I know myself well enough to know which of these demand sources I think it’s important to attend to?” and/or “Can I recognize the absurdity of my (implicit) belief that I can simultaneously satisfy all of these (conflicting) demand sources?

Environmental Demands

<table>
<thead>
<tr>
<th>Environmental Demand Sources</th>
<th>(Sample Demands)</th>
</tr>
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<tbody>
<tr>
<td>1) social</td>
<td>“Come to the party; only a bore would study tonight.”</td>
</tr>
<tr>
<td>2) curricular</td>
<td>“If you’re planning to major in __________ and graduate in 2 years, you’ve have to take __________, __________, _________ next semester.”</td>
</tr>
<tr>
<td>3) faculty</td>
<td>“My advisor is hard to talk to and doesn’t seem to be concerned with anything besides my grades.” Or “My professor doesn’t understand me.”</td>
</tr>
<tr>
<td>4) psychological</td>
<td>“I didn’t really want to come to college in the first place, but what kind of future can I have without education?”</td>
</tr>
</tbody>
</table>
5) physical/ecological

| Or | “I’ve got class from 8 am to 3 pm; when will I eat?” |
| Or | “If my class weren’t clear across campus, I’d have another 20 minutes to study.” |

6) performance (classroom/practicum)

| Or | “I just can’t get in front of the class to give this speech.” |
| Or | “I’m not sure I passed that exam.” |

7) significant others (family/peers/others)

| Or | “My folks expect me to be a doctor someday. I thought so too... how do I tell them that I’m not so sure now?” |
| Or | “Everybody else seems to wear clothing I don’t find comfortable in; will I look out of place if I please myself and feel physically comfortable?” |

B. Cognitive Strategies for Academic Inadequacy

At this point, we’ll focus on the primary source of academic anxiety—fear of inadequacy! This concern usually is centered around failure of an examination precipitated by insufficient preparation. Therein lie the two main “places” for anxiety to be generated, namely questions like “Am I ‘ready’ for this test?” and “Do I know the correct answers?” The majority of performance anxiety in the academic arena emerges from consideration of these two questions or a variation thereof.

This segment starts with an attempt to get folks to specify where their anxiety comes to a head on this matter of academic preparation and performance. Open discussion can accomplish this with material drawn from their previous session with the contracts, as well as merely soliciting the same particulars from each group member in turn. The emphasis here should be on specification of what aspects of academic work are the greatest sources of anxiety.

Once this is completed and summarized by the leader, the group is led through a brief RET–like preparation for examinations and obtaining perspective
in general. The most successful way to do so has involved a series of “telescoping” questions about the importance of a particular testing situation in one’s life. This involves “so what if...” questions ranging from being unprepared at all to the importance of this test’s outcome five or six years hence.

This can be also be augmented by following up with a look at the “social” implications of academic inadequacy by a series of semi-rhetorical questions about the students’ personal worth in the face of a poor academic performance. These range from questions about worth as a student to those reflecting one’s worth as human being. The points of ultimate comparison enable a realistic perspective to be obtained especially well in this circumstance.

On occasion, we’ve either combined the above with their obverse i.e., a series of positive self-statements about both academic ability and overall personal worth, or merely used the positive comments without the interrogative phase. Generally, the question-only format has proven more satisfactory and less time-consuming. The entire premise here simply is to challenge ones fear-generating thoughts and beliefs so that a more rational, operational perspective may be attained.

C. Techniques for Reducing Performance Anxiety

The next step in combating academic anxiety has two parts:

1. Use of autogenic relaxation with a “walking through” of the entire scenario from studying to completion of the test (or, in some instances, the presentation of a paper, report, talk, etc.) and receipt of the results.

2. The other basic strategy in controlling academic anxiety is devoted to the importance of “being prepared” to the best of one’s ability for the performance demands of the situation. Preparation of this nature, aside from actual knowledge of the material tested, comes from a feeling of being “test-wise.” This refers to the sense of confidence one can acquire from knowing about “test taking” systematically which can aid the one taking the test, particularly in gaining confidence and in resolving ambiguous moments in the testing itself.

For this, several so-called “academic survival skills” handouts are used, and key concepts are highlighted as they are distributed. These have been put
together from a variety of other sources as well as local devices and are found in Appendices L through Y.

**D. Summary, Post-Test, Evaluation and Closing**

Following this, the session is summarized and post-tests and evaluations are administered.

The group is then adjourned with closing comments of encouragement from the leader(s).
References


Biomonitoring Applications, Inc. 270 Madison Ave., NYC. Produce a number of audiocassette programs of worth and relevance to this topic, e.g., “Clinical management of anxiety” — two sets of tapes on self-modification and relaxation respectively; also “Biofeedback applications in counseling and education.” They publish Fuller, G.D. *Biofeedback: Methods and procedures in clinical justice* as well.


Williams, R.L. and Long, J.D. *Toward a self-managed life style*. Boston: Houghton Mifflin, 1975. (Several chapters; #5 re: academic anxiety.)

Appendices
Appendix A: Assessment Instruments

The following psychometric tools have been used singly or in combination as this program has been offered over the past few years. All but the MPI are standardized tests available commercially. The typical design for research has been a pre/post/+ 6 months scheme. Results have often been significant, especially for the immediate post-testing.

Multidimensional Personality Inventory (MPI) - C. Salvatore: (This is a 47-item questionnaire which has been a factor analyzed and normed on several age groups and which measures three related dimensions: anxiety, internality, and external locus of control. It is available from the authors of this manual).

*State Trait Anxiety Inventory (STAI) – Spielberg et al; several forms.

*Wolpe Fear Inventory – Wolpe; two forms.

*Taylor Manifest Anxiety Test – Taylor.

*Achievement Anxiety Test – Alpert and Haber.
Appendix B: Mini-Lecture: Stress and Anxiety

**Stress:** Any action or situation that places special physical or psychological demands upon a person (no valence — see below).

**Anxiety:** Individual’s particularized response to stress (may have positive or negative valence — e.g. Webster: “uneasy” vs. “eager desire”)

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<th>Anxiety Paradigm:</th>
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Anxiety described further is...

1) A universal phenomenon

2) A normal, inevitable, and often useful occurrence

3) Essentially a **learned** phenomenon with **three** main attributes

<table>
<thead>
<tr>
<th><strong>“WORRY”</strong> (mental)</th>
<th>1. <strong>Feelings</strong> of apprehension (in absence of real threat).</th>
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<td>2. Interference with <strong>thinking</strong> (especially the ability to organize thoughts toward coping).</td>
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<th><strong>“TENSION”</strong> (physical)</th>
<th>3. <strong>Physiological</strong> changes (internal bodily changes following an “alarm” reaction with increased secretion of adrenaline / norepinephrine, including: rapid breathing, rapid heartbeat, hyperactive gut — vomiting/diarrhea, perspiration, urge to urinate, increased muscle tension, diminished sleep).</th>
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4) Of two primary forms

a) **Situational**: a specific reaction to a particular type of performance demand.

b) **Generalized**: somewhat “free floating”; a socially inhibiting level of anxiety

Two models of anxiety with implications for managing it.
Appendix C: Anxiety / Stress Cartoon
Appendix D: General Relaxation Instructions

Begin by getting as comfortable as you can.* Settle back comfortably. Just try to let go of all the tension in your body. Now take in a deep breath. Breathe right in and hold it (5-second pause). And now exhale. Just let the air out quite automatically and just concentrate on feeling heavy all over in a pleasant way. Study your own body heaviness. This should give you a calm and reassuring feeling all over (10-second pause).

Now let us work on tension and relaxation contrasts. Try to tense every muscle in your body. Every muscle: your jaws, tighten your eyes, your shoulder muscles, your arms, chest, back, stomach, legs, every part just tensing and tensing. Feel the tension all over your body—tighter and tighter—tensing everywhere, and now let it go, just stop tensing and relax. Try to feel this wave of calm that comes over you as you stop tensing like that. A definite wave of calm (10-second pause).

Now I want you to notice the contrast between the slight tensions that are there when your eyes are open and the disappearance of these surface tensions as you close your eyes. So while relaxing the rest of your body just open your eyes and feel the surface tensions which will disappear when you close your eyes. Now close your eyes and feel the greater degree of relaxation with your eyes closed (10-second pause).

All right, let us get back to the breathing. Keep your eyes closed and take in a deep, deep breath and hold it. Now relax the rest of your body as well as you can and notice the tension from holding your breath. Study the tension. Now let out your breath and feel the deepening relaxation—just go with it beautifully, relaxing now. Breathe normally and just feel the relaxation flowing into your forehead and scalp. Think of each part as I call it out—just relaxing—just letting go, easing up, eyes and nose, facial muscles. You might feel a tingling sensation as the relaxation flows in. You might have a warm sensation. Whatever you feel, I want you to notice it and enjoy it to the full as the relaxation now spreads very beautifully into the face, into the lips, jaws, tongue, and mouth—so that your lips are slightly parted as the jaw muscles relax further and further.

The throat and neck relaxing (5-second) pause, shoulders and back relaxing, further and further, feel the relaxation flowing into your arms and to the very tips of your fingers (5-second pause). Feel the relaxation in your chest as you breathe regularly and easily. The relaxation spreads even under your armpits and down your sides, right into the stomach area. The relaxation becomes more and more
obvious as you do nothing but just give way to the pleasant serene emotions that fill you as you let go more and more. Feel the relaxation—stomach and lower back, all the way through in a warm, penetrating, wave, calm and down your hips, buttocks, and thighs to the very, very tips of your toes. The waves of relaxation just travel down your ankles and toes. Feel relaxed from head to toe. Each time you practice this you should find a deeper level of relaxation being achieved—a deeper serenity and calm, a good calm feeling.

Now to increase the feelings of relaxation at this point what I want you to do is just keep on relaxing, and each time you exhale, each time you breathe out for the next minute, I need want you to think the word “relax” to yourself. Just think the word “relax” as you breathe out. Now just do that for the next minute (one-minute pause). Okay, just feel that deeper relaxation and carry on relaxing. You should feel a deeper, deeper feeling of relaxation. To even further increase the benefits, I want you to feel the emotional calm, those tranquil and serene feelings which tend to cover you all over inside and out, a feeling of safe security, a calm indifference — these are the feelings that relaxation will enable you to capture more and more effectively each time you practice a relaxation sequence.

Relaxation will let you arrive at feeling a quiet inner confidence — a good feeling about yourself (5-second pause). Now once more feel the heavy sensations that accompany relaxation as your muscles switch off so that you feel in good contact with your environment, nicely together, the heavy good feeling of feeling yourself calm and secure and very, very tranquil and serene.

Now we can deepen the relaxation still further by just using some very special stimulus words. Let’s use the word “calm” and “serene.” What I would like you to do is to think these words to yourself 20 times or so. Don’t bother to count. Approximately 20 or 30 times just say to yourself “calm” and “serene” and then feel the deepening — ever, ever deepening — waves of relaxation as you feel so much more calm and serene. Now you just do that: Take your time, think of the words, and feel the sensation over and over (pause of about one minute). Good.

Now I am going to count backward from 10 to one. At the count of 5 I would like you to open your eyes, and then by the time I reach one, just kind of stretch and yawn and then you can switch off the recorder and just go back and relax on your own. Okay, now counting backward: 10, 9, 8, 7, 6, 5, open your eyes 4, 3, 2, and 1. Now just stretch and kind of yawn and then slowly get up and switch off the recorder and then you can go back and carry on relaxing as long as you wish.
Appendix E: Ellis “A–B–C–D–E” Paradigm

The following sequential model is based on the assumption that thinking, feeling, and behaving are not separate functions but are, rather, interdependent activities.

This model involves five sequential and cyclical activities in any action taken. They include the following:

A = The activating even or stimulus

B = The beliefs or cognitive learning one has acquired

C = The consequences or reaction(s) to the stimulating event

D = The dispute or internal debate engaged in

E = The effects or outcomes of rethinking the situation

In this schema, the emotional consequences (point C) one experiences are not simply viewed as occurring as a result of the activating events (point A), but are highly influenced by the person’s particular belief system (point B). In order to avoid being enslaved by these emotional reactions, a person must learn to examine and challenge (point D) his or her anxiety-inducing ideas so as to arrive at alternative courses of action and comfort about them (point E). See the diagram below for a sequential representation.*

This paradigm is but one major element in the conceptual schema developed by Albert Ellis, and referred to as RET or Rational-Emotive Therapy.
## Coping with Stress and Anxiety

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Appendix G(1): Stress Inventory

Psychologists have developed this quiz to help you find out just how well you handle the stress in your life. The test is based on a careful assessment of current clinical psychology. Nevertheless, it is intended as a guide only and not as a logical evaluation. There are no absolute rights or wrongs.

Directions

To achieve the most satisfactory results, you should obey the following simple rules:

1) Mark your choices on a separate sheet of paper and answer each question as honestly as you possibly can. If you do not, you will end up with a distorted and misleading picture of yourself.

2) Don’t rush into the quiz. Set aside a time when you can do it properly on your own and without discussing your answers or the questions with anyone else. Don’t, on the other hand, linger over it unduly. Allow yourself a maximum of five minutes to complete it (not including scoring).

3) In many of the questions you will be asked to make a choice between a number of different views and attitudes. You may not find a perfect match on all occasions. When that happens, pick the one that is closest to the way you feel.

4) Check your score carefully, and don’t peek at the score guide until you have completed the test.

5) Do not administer the quiz to anyone else. It is not designed for this purpose and will give a misleading and inaccurate picture.

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**Stress Inventory**

1. Try to imagine that you overhear two people whom you know very well talking about someone. After a while they say something that makes you realize that they are talking about you because what they say fits pretty closely with how you think other people see you. Which of the following statements is closest to the one that you “overheard?”

   a) “X” seems to be a pretty well balanced person. Nothing much bothers him/her.

   b) I like “X” but I wish he/she weren’t so fussy and finicky.

   c) Poor “X” always seems to have something the matter with him/her!

   d) “X” is very moody, don’t you think? I wish he/she were a bit easier to get along with.

   e) I simply don’t understand “X.” I wish I knew what made him/her tick.

2. Here’s a question about your relationships with the opposite sex. Which of the following most common corresponds to your own case?

   a) I find it extremely easy to get along with members of the opposite sex, and my love life is smooth and untroubled.

   b) I am quite unable to form a happy relationship with anyone of the opposite sex, and I find this very worrisome.

   c) On the whole, I get along well with members of the opposite sex, and I have difficulties or upsets from time to time.

   d) Occasionally, I get along well with men/women, but most times it’s not too easy.

   e) I lead an active love life, but it’s a very troubled and uncertain one.

   f) I cannot find any statement above that is anywhere near my own case.
3. Here are six statements. Indicate whether you strongly agree, agree, disagree or strongly disagree with each.

a) Politicians tend to be concerned with advancing themselves rather than helping ordinary people. ______________________________

b) “Spare the rod and spoil the child” may be an old-fashioned saying, but there is certainly a good deal of truth in it. ______________

c) Most people who suffer from neuroses could benefit from more firmness and less sympathy. ______________________________

d) Homosexuality is basically wrong and is a matter for punishment rather than treatment. ______________________________

e) People who become alcoholics have only themselves to blame. ______________________________

f) An untidy house denotes an untidy mind. ______________________________

4. Indicate which of the following statements most closely agrees with your overall picture of your attitude toward life.

a) I feel full of confidence about the future most of the time.

b) I’m pretty optimistic about things on the whole.

c) Sometimes, I feel optimistic, sometimes pessimistic, about the way things are going to turn out.

d) Occasionally, I feel optimistic, but most I’m not too hopeful or happy about my future.

e) The future looks pretty black to me most of the time.

5. Indicate the questions to which you answer “yes.”

a. Do you have difficulty sleeping? _____

b. Do you tend to be troubled by dizzy spells or shortness of breath? _____

c. Do you dislike the idea of travel? _____
d. Do you have what you feel to be an unreasonable fear of high places or open spaces? _____

e. Do you often find yourself crying? _____

f. Do you dislike shyness in others? _____

g. Do you find that you get unusually annoyed if someone prevents you from doing something you want to do? _____

h. Are you interested in athletics? _____

6. Here are some drugs that people take to help them when under stress of one kind or another. Say honestly whether you use them never, occasionally or regularly.

a. Aspirin or tranquilizers: _____________________________

b. Sleeping pills of any kind: _____________________________

c. Herbal tonics or medicine: _____________________________

d. Alcohol: _____________________________
Appendix G(2): Stress Inventory Scoring Key

On your answer sheet, next to each answer, mark the appropriate score according to the following directions. When you have finished, group your A, B, C, and D scores separately. (0—zero—will have no capital letter attached). Then add each group individually and set these figures aside. (For instance, you may end up with four A’s, two B’s, four C’s, and five D’s.) Now add your total numerical score. (In our example, that would be 4 + 2 + 4 + 5 = 15.) Next, you can proceed to your personality analysis, which will include both number and letter scoring explanations.

1. a 0 b 4C c 4D d 4A e 0

2. a 0 b 3C c 0 d 3A e 0 f 3A

3. |       | Strongly Agree | Agree | Disagree | Strongly Disagree |
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<td>f</td>
<td>4C</td>
<td>2C</td>
<td>0</td>
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4. a 0 b 0 c 2A d 4A e 6A

5. Scores are for “yes” answers only.

   a 2C b 2D c 0 d 4B e 2A f 0 g 2C h 2D i 4B
   j 2A k 2D l 4B m 0 n 2A 0 2C p 2C p 2A
   r 0 s 4B t 2D u 2C v 2D w 0 x 4B y 2A
   z 2D aa 4B bb 2A cc 2C dd 0

6. |       | Never | Occasionally | Regularly |
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<td>B</td>
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<td>1C</td>
<td>2C &amp; 2A</td>
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<tr>
<td>C</td>
<td>0</td>
<td>1C</td>
<td>2C &amp; 2A</td>
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<tr>
<td>D</td>
<td>0</td>
<td>1C</td>
<td>2C &amp; 2A</td>
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Appendix G(3): Stress Inventory Analysis

Total Numerical Score:

1 – 10. This is a suspiciously low score. Either you’ve misread the instructions or you’ve made an error in your scoring. It’s possible for someone to be so well-adjusted that he or she could score just like you have, but the person would certainly be leading a very dull and unchallenging life.

11 – 25. This is the “normal” range of response. No human being is completely well-adjusted, but you are striking a reasonably satisfactory balance between your personality and the stresses of the world about you. You should also look at the distribution of your letter scores in the four personality strains: A, B, C and D. If your score is fairly evenly drawn from each of the four personality strains, then you are indeed “well-adjusted.” A major contribution from only one of the strains, however, denotes a more marked imbalance. To interpret this tendency, see the individual letter scoring explanation.

26 – 45: No human being is totally free of emotional stress, and most people compensate for this stress with some degree of irrational behavior or neurosis. Your score indicates that there is a measurable neurotic component to your psychological make-up. You tend to be making rather heavy weather of life and some of its problems. Often such stresses are due to unresolved conflicts of a major kind — an unhappy marriage, an unsatisfactory job, or financial troubles. But whatever the reason for it, you may gain greater insight into your condition by looking at the relative balance of the four personality strains.

46 – 60. There’s a little doubt that you lead an erratic and troubled emotional life. If you are young, under 25, this could well be a passing phase brought on by the enormous stresses of transition into adult life. If you are older, you may be faced with crises and conflicts that you are finding very hard to resolve. It is important to realize, however, that neurotic responses to the quiz questions do represent the fact that you are struggling to solve your problems. In that sense, therefore, your high score is nothing to be ashamed of. But you should try to resolve some of your conflicts. If you are having difficulty identifying just what they are, why not confide in a friend or member of your family? This often helps to highlight a way out.

Over 60. This is an exceedingly high score by any standard, and either you are passing through a highly critical time of your life, in which case the
scores are probably inflated and will later decline, or you have been mis-scoring or misinterpreting the questionnaires. If after rechecking your scores you still retain the same high score, then you should seriously set about trying to solve the problems that are obviously troubling you. A long chat with a trusted friend may help you or you might also consider seeking professional help.

**Individual Letter Scores**

The four scores—A, B, C and D—represent four major personality traits. Each of these represents a method by which the individual attempts to deal with problems and difficulties in his or her life.

Clinical psychologists recognize a large number of different “neurotic strains,” but for simplicity’s sake, we have grouped them in this questionnaire into four categories: Anxiety A, Phobic B, Obsessive C and Hysterical D. Anxiety states tend to be dominated by feeling of depression and general uneasiness; phobic states by irrational and immeasurable fears; obsessive states by a tendency toward a rigid personality and preoccupation with trivial detail; and hysterical states by physical and psychological symptoms of one kind or another.

As a general guide, an individual score of over 15 for any one letter does not mean very much but it does indicate that any psychological stress you experience will be reflected in this particular area. If your overall score is less than 25 and no individual letter score exceeds 15, your personality pattern is normal.

However, here are some simple rules that may help you deal with everyday stress:

1. If moderate anxiety score: Do the best you can (despite your inclinations) to mix with other people and engage in productive activities, such as hobbies or sports where possible.

2. If moderate phobic score: Don’t fight the phobias but merely try to avoid them. If they become severe, seek professional guidance.

3. If moderate obsessive score: Try to be a little less fussy and more tolerant of others; your intolerance is really intolerance of yourself.
4. If moderate hysterical score: Try to realize that much of troubles that appear to be affecting you are psychological in origin and will vanish if major conflicts in your life-style can be resolved.
Appendix H: Alternative Methods for Coping with Anxiety

Bugg (1972) proposed a short-form method for confronting stressful stimuli:

1. Take a deep breath and let it go suddenly.
2. Tell oneself to relax.
3. Focus for 10 seconds on something very pleasant.
4. Redirect attention to problem situation.
5. If anxiety recurs, repeat a–c again.

Meichenbaum and Cameron (1974) urge the use of positive self-statements to reduce threat of anxiety-provoking situation, including for example:

- “I’m going to do well at this…”
- “I’m well prepared…”
- “I can handle this!”
- “My (ability, whatever) is as good as anyone else’s here…”
- and so on…

They suggest the person say these to him- or herself ahead of time i.e., before getting into the performance situation itself. This helps by replacing and countering irrational, self-denigrating avoidance statements.

Lazarus (1971) has described a set of six supplemental methods for dealing with various stressful circumstances. These include:

1. Embellishing relaxation training with what he calls relief imagery using words of extreme degree like “heavily relaxed,” “utterly calm,” “totally at peace,” etc.

2. Use of contrary questioning to undo worrying about consequences of inadequacy thus: Whenever tempted to ask oneself “What if…,” simply precede the statement with “So what if….”
3. Visualizing exaggerated metaphors or the so-called “blow-up” technique. For instance, when you feel as if you’re embarrassed to the point of blushing, take that self-image a step further and picture your face turning redder and redder to where it’s becoming so bright a red the feeling is as if the blood in your face is escaping on your cheeks. Or similarly with perspiring … to the point of sweating measurable amount of fluids. The whole point here is that as one gets to where they can “see” the utterly ridiculous extremes, the effect it to lower the anxiety level to a realistic perception.

4. Picturing “aversive imagery,” a technique to thwart self-defeating, anxiety-based behavior. For example, as one is tempted to drink a (forbidden) beverage, picture that there are “bugs” in the bottle. Or, as one is tempted to dig into the cookie jar, imagine that as you dip your hand in, you discover that someone has vomited into the jar.

5. Countering anxious, even low mood moments by “projecting ahead in time.” For example, when feeling you are in the midst of worrisome times, imagine ahead of a time when one might be in a “better place,” engaging in more enjoyable behaviors. For instance, restfully enjoying music, basking in a change of season, a new skill or activity, new acquaintances, more pleasant places, and so on. One should do this gradually, projecting first to a week, then 2 weeks, 1 month, 3 months, etc., to about 6 months hence. At that point, you can reflect on that future time to give you the perspective to defuse present feelings, to affirm that now is not forever.

6. “Thought control,” a technique for vigorously “bossing” one’s adverse or troublesome thoughts around. It involves a vehement, assertive interruption of a negatively tinged thought pattern by shouting (literally) words like “STOP!” or “NO!” in the middle of an anxious series of worrying. This approach does work, but requires repetition when called for over approximately a month’s time to master a thought pattern.
Appendix I: What Can You Do about Stress?

As excessive stress varies in its impact on individuals, so the strategy coping with stress also varies. The strategies described below have been used successfully. The overall strategy recommended by Dr. Hans Selye may be summarized by the statement, “Do your own thing.” Find out your natural speed and live your life at that speed. In the process you can consider the following strategies for coping with stress.

1) **Break out of the Type A habits.**

Type A behavior includes speaking fast, eating fast, constant competition, ignoring or denying tiredness, setting quotas, doing two things at once, pretending to listen, over-scheduling, and clenching muscles in fists or jaws. You can systematically slow down your life and your drive.

2) **Relax.**

Make a list of activities (or non-activities) that are relaxing to you. Design your week so that you involve relaxing activities as a regular part of your life. You might want to include relaxing recordings of music, systematic muscle relaxation, or meditation. These may be done on a regular basis — on arising, before retiring, etc. — and on a basis of choice following a stressful situation. Learn biofeedback techniques for this and the next approach.

3) **Learn new responses.**

As you identify stress cues and your typical responses, you can begin to make new responses to them. If you have learned relaxation techniques, you can utilize relaxation by choice. Using imagery, you can picture yourself in stressful situations and imagine yourself coping successfully. In some situations you can channel responses externally rather than suppressing responses. Learn coping skills, including assertiveness and other communication skills.

4) **Strengthen your resistance.**

Adequate exercise, rest, and nutrition are keys to developing your physical resistance to stress. Most specialists encourage vigorous exercise, including running, brisk walking, jumping rope, swimming, biking, or active sports. Nutrition includes balanced dieting. Stress causes the body to use B and C vitamins rapidly and these vitamins may be used as supplements in coping with continuous stress. Hatha Yoga incorporates dimensions of this and other
alternatives. Its muscle-stretching helps to make your body more usable and its concern with breathing and mediation increase relaxation.

5) **Reappraise your schedule and habits.**

Instead of scheduling to do as much as possible, schedule to maximize your enjoyment of life. Allow time to get to places, time to enjoy the trip, time to reflect. Write down what you are trying to do now and what price you are paying in terms of discomfort, stress, and lack of enjoyment of life. Decide what you would find meaningful and try to play a schedule that adds meaning. Practice saying, “No.” Avoid stress-producing people and activities by design. Where this is impossible, reduce stressful situations to a manageable level or consider a new environment altogether.

6) **Consolidate your stress-reducing allies.**

Make an agreement with a friend for co-counseling. Once a week plus on an on-call crisis basis, spend an hour alternating counseling. For 30 minutes you are the client, being free to vent all the pent-up hostility and fear, without inhibiting your expression. For the next 30 minutes you serve as counselor, listening and responding genuinely, emphatically and non-judgmentally to your friend as he or she expresses feelings openly. At home share with your family some of the relaxation and exercise techniques you want to make into a routine. Ask their support in this and express the desire that their expectations from your former routine be dropped. Find friends with whom you feel good, and spend time with them.

7) **Make a stress plan.**

Look openly at stress in your life, its cues, and its results. Choose from the previous list the elements you want to incorporate into your life. Do this in conference with someone who can be a stress-reducing friend. Decide what you can do immediately and do that for the next week. Choose only goals you believe you can reasonably reach in the next week. Share with your friend periodically your successes. At the end of the week, plan for the next week. Each morning, look at your day with the question, “What shall I do today to make this day more meaningful and less stressful?”

(from Robert E. Davis, Memphis State University, 1978)
Appendix J: Coping with Stress and Anxiety

Program Evaluation

Name of Leader(s): ______________________________________________________

Date Workshop Began:___________________________________________________

Today’s Date:___________________________________________________________

In order that we might know what has been helpful and useful in this group program, your candid answers to the following items are most valuable and appreciated:

1) How would you rate the overall program in terms of its success in your increasing ability to cope with stress and anxiety?
   ____very successful    ____of little help
   ____moderately successful  ____a waste of time

2) What parts of the program were MOST helpful and why?
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________

3) What parts of the program were LEAST helpful and why?
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________

4) What would you comment on each session and its particular high and/or low points:
   Session I: ______________________________________________________
   _________________________________________________________________
   Session II: _____________________________________________________
   _________________________________________________________________
   Session III: ____________________________________________________
   _________________________________________________________________
   Session IV: ____________________________________________________
   _________________________________________________________________
Session V: _____________________________________________________

5) What specific changes would you recommend be made in this program? Add any other comments.

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

6) Please respond on a 1–5 scale to the following:
   1 = strongly disagree  2 = disagree  3 = not sure/no opinion
   4 = agree  5 = strongly agree

   a) The program was well geared to my needs. _____

   b) The leader(s) was/were knowledgeable of the subject. _____

   c) The leader(s) was/were capable of transmitting clearly the content and meaning of the program. _____

   d) The leader(s) set a tone for comfortable group interaction and a climate conducive to learning. _____

   e) Time was well utilized and activities were meaningful. _____
Appendix K: Achievement Anxiety Test

Name: ______________________________
Date: _______________________________

Achievement Anxiety Test

(R. Alpert and R. Haber)

Directions: This scale deals with your feelings about a variety of scholastic situations. Reach each statement and decide to what extent it applies to you. Circle the number in the appropriate column under the heading which best describes the frequency you experience the feelings described by the statements. Do not ponder the questions, rather work as rapidly as possible since your first impression is usually accurate. Answer every item.

<table>
<thead>
<tr>
<th></th>
<th>Almost never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nervousness while taking an exam or test hinders me from doing well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I work most effectively under pressure, as when the task is very important.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. In a course where I have been doing poorly my fear of a bad grade cuts down on my efficiency.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I have a good appetite.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. When I am poorly prepared for an exam or test, I get upset, and do less well than even my restricted knowledge should allow.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. The more important the examination the less well I do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I spend more than ten minutes a day reading the newspaper.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>8.</td>
<td>I think about what I will be doing ten years from now.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>While I may (or may not) be nervous before taking an exam, once I start I seem to forget to be nervous.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>During exams or tests, I block on questions to which I know the answers, even though I might remember them as soon as the exam is over.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Nervousness while taking a test helps me to do better</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>When I start a test, nothing is able to distract me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I spend an hour a day talking with my friends about topics other than those covered in my classes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>In courses in which the total grade is based on one exam, I seem to do better than other people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>I find that my mind goes blank at the beginning of the exam, and it takes me a few minutes before I can function.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>I look forward to exams.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>I am so tired from worrying about an exam, that I find I almost don’t care how well I do by the time I start the test.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Time pressure on an exam causes me to do worse than the rest of the group under similar conditions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Although “cramming” under pre-examination tension is not effective for most people, I find that if the need arises I can learn material immediately before an exam, even under considerable pressure, and successfully retain it to use on the exam.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>I enjoy playing practical jokes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>21. I enjoy taking a difficult exam more than an easy one.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. I tell the instructors in my classes my feelings about how they conduct their classes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. I find myself reading exam questions without understanding them, and I must go back over them so that they will make sense.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. The more important the exam or test, the better I seem to do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. I find myself wishing that I could get a decently paying job instead of being a student.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. When I don’t do well on a difficult item at the beginning of an exam, it tends to upset me so that I block on even easy questions later on.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix L: Some Study Tips

The Job of Learning

1) Learning means work.
2) Being a student is no easy job.
3) Three hours in class may mean at least 6 hours out of class.
4) College work is no “snap,” but it should stimulate and broaden the mind. It should make you see and appreciate more of life.
5) No one should be bored in college.

What To Do

1) Get organized.
2) Budget your time for in-class and out-of-class work.
3) Study hard.
4) Find some interest in each subject.
5) Have a time to study.
6) Don’t get too comfortable.
7) Avoid disturbances such as noise and loud music.
8) Do your studying, and then fool around.
9) Don’t try to do all your studying in one night before a test.
10) Don’t take it for granted that you have a course made.
11) Combine information from your textbook, lectures and your own research.
12) Enter into class discussion.
13) Let your professor know you’re alive.
14) Shoot for an A — not a B or C
15) Don’t be afraid to accept responsibility.
16) Study your hardest subject when you’re most alert.
17) Make use of odd minutes as well as blocks of hours to study.
**Appendix M: What is the SQ3R Method of Study?**

“SQ3R” is a codification of methods actually used by the most successful and efficient college students. The initials stand for steps in the process. Thousands of high-ranking students were interviewed about how they achieved their goals and how long it took them to do so. Their responses were then boiled down into the following formula:

<table>
<thead>
<tr>
<th>1. Survey</th>
<th>Look the job over. Observe headings. Observe the structure of the chapter. If there is a summary (formal or informal) read it. If there are end-of-chapter questions, read them. Note whether the author sums up repeatedly or only once. The survey step gives you a set for the job of reading. Thoughtfully done, it allows you even to predict what the author is going to say. It’s the greatest time-saver ever devised for the good student.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Question</td>
<td>Ask yourself questions based on your survey. For instance, working from headings, turn a heading such as The Genetic Code into an active question such as (at the simplest level). What is the genetic code? Or Why is it called a code? Turn the summary statements into questions. The question step makes you into an active, not a passive, reader. You are reading for answers.</td>
</tr>
<tr>
<td>3. Read</td>
<td>Now settle back and actively start to read the chapter, with your questions in mind. It is usually wise to take the material one major headed section at a time. Do not underline while you read. If you like, set a time goal.</td>
</tr>
<tr>
<td>4. Recite</td>
<td>Look away from the assignment and from any notes you have taken, and ask yourself the questions about what you have just read. Make the deliberate effort to recall the important points. If you can do so, you have mastered that part of the material. If not, you should re-read. The recall step is what fixes the material in your mind. It makes reviewing for exams much easier. Understanding while you read is not enough.</td>
</tr>
<tr>
<td>5. Review</td>
<td>As you complete the work, review it briefly by giving it a quick second reading. Now is the time to underline. The oftener you reread, the better you will understand. Reading college textbook chapters once is scarcely ever enough. The successful student takes it for granted that re-reading is part of the game, but he does it quickly.</td>
</tr>
</tbody>
</table>
Note: Simply reading the chapter is the least of it, and takes the least time. The overall saving time, however, is impressive.

******************************************************************************

Additional sources of questions are charts and graphs, which are after all summaries even if they are presented visually, and italicized phrases, which indicate that the author considers them important.

Is the SQ3R method an easy way to study? _Not at first._ It’s easy to understand and memorize the steps, but putting them into practice will require deliberate effort, and for a while you may find that your older, more passive habits will interfere with the active effort to study.

**But you can learn to apply SQ3R successfully, and you will find it rewarding.**

_P.S. The students who originated SQ3R by revealing that this was the way they got results also reported that they had no problem concentrating. The fact is that when you use this method you are concentrating._
Appendix N: Taking Lecture Notes

There are many reasons for taking lecture notes.

1. Making yourself take notes forces you to listen carefully and tests your understanding of the material.
2. When you are reviewing, notes provide a gauge to what is important in the text.
3. Personal notes are usually easier to remember than the text.
4. The writing down of important points helps you to remember them even before you have studied the material formally.

Instructors usually give clues to what is important to take down.

Some of the more common clues are:

- Material written on the blackboard.
- Repetition.
- Emphasis
  - Emphasis can be judged by tone of voice and gesture.
  - Emphasis can be judged by amount of time instructor spends on points and number of examples he uses.
- Word signals (e.g. “There are two points of view on...,” “The third reason is...,” “In conclusion...”).
- Summaries given at end of class.
- Reviews given at beginning of class.

Each student should develop his own method of taking notes, but most students find the following suggestions helpful:

1. Make your notes brief.
   - Never use a sentence where you can use a phrase. Never use a phrase when you can use a word.
   - Use abbreviations and symbols.

2. Put most notes in your own words. However, the following should be noted exactly:
- Formulas
- Definitions
- Specific facts

3. Use outline form and/or a numbering system. Indentation helps you distinguish major from minor points.

4. If you miss a statement, write key words, skip a few spaces, and get the information later.

5. Don’t try to use every space on the page. Leave room for coordinating your notes with the text after the lecture. *(You may want to list key terms in the margin or to make a summary of the contents of the page).*

6. Date your notes. Perhaps number the pages.
Appendix O: Working with Lecture Notes

There are several good reasons for organizing and reviewing your notes as soon as possible after the lecture.

- While the lecture is still fresh in your mind, you can fill in from memory examples and facts that you not have time to write down during the lecture. Moreover, you can recall what parts of the lecture were unclear to you so you can consult the lecturer, the graduate assistant, a classmate, your text, or additional readings for further information.

- Immediate review results in better retention than review after a longer period of time. Unless a student reviews within 24 hours after the lecture or at least before the next lecture, his retention will drop; and he or she will be relearning rather than reviewing.

A method of annotation is usually preferable to recopying notes, and the following suggestions for annotating may be helpful:

1) Underline key statements or important concepts.

2) Use asterisk (*) or other signal marks to indicate importance.

3) Use margins or blank pages for coordinating notes with the text. Perhaps indicate relevant pages of the text beside the corresponding information in the notes.

4) Use a key and a summary.
   a) Use one of the margins to keep a key to important names, formulas, ideas, concepts and the like. This forces you to anticipate questions of an objective nature and provides specific facts that you need to develop essays.
   b) Use the other margin to write a short summary of the topics on the page, relating the contents of the page to the whole lecture or to the lecture of the day before. Condensing the notes in this way not only helps you to learn them but also prepares you for the kind of thinking required on essay exams and many so-called “objective” exams.
Appendix P: Effective Skill in Reviewing

Knowing that an examination will come sometime after a student has read a lesson, the student will want to set up a review schedule which, with the least effort, will place him or her at a peak of efficiency for the examination. Research studies indicate not only the best timing for these reviews, but also something as to the most effective types of reviews.

Timing of Reviews

Since forgetting takes place so rapidly after learning, it is evident that some review should come early, when review will be easy and most effective. Last-minute careful “cramming” also has the value of returning memory to something of its original freshness just before the examination. Research studies show that both of these timings are more effective than review in between. The student’s problem is to distribute review times so that no single review takes much time and so that studying before an examination does not become too hectic and fatiguing an effort.

Certain principles are also of value in determining the distribution of view time as the student approaches an examination. The very size of the task of reviewing for mid-term or final exam tends to lead to procrastination. The lengthy cramming session that too often occurs just before the exam greatly fatigues the student so he or she cannot be as alert the next day on the test. And during a given study period, there is a tendency to get the next day’s lesson before starting to review; then there is rarely time to review.

The following principles have been found to help with these difficulties:

- Several review times should be scheduled, rather than one lengthy session.
- All review time should be scheduled separately, rather than one length session.
- A definite segment of the material should be assigned to each review time.
- A student probably should not review for more than an hour or two the night before an examination.
Between immediate review and review just before the exam, there is need for some informal intermediate review to keep the material fresh in memory. Because, as indicated in many research studies, memories tend to become reorganized in a dynamic way with the passage of time, such intermediate review tends to keep ideas in line with the actual facts read. An occasional looking over of one’s notes, with rereading on obscure points, will do much to reduce forgetting and will tie in previous material with what is then being studied.
### Appendix Q: Sample — Organized Note-Taking

#### Neurotransmitters

<table>
<thead>
<tr>
<th>Neurotransmitter</th>
<th>Where Found</th>
<th>Removed Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acetylcholine (Ach)</td>
<td>1. All through CNS and PNS</td>
<td>1. Once released, attacked by acetylcholinesterase. Lets in system → inactivates Ach quickly → make quick movement possible</td>
</tr>
<tr>
<td></td>
<td>2. Particularly released at synapse at myoneural junction in PNS. Muscle nerve.</td>
<td></td>
</tr>
</tbody>
</table>

**Monoamines:**

<table>
<thead>
<tr>
<th>Neurotransmitter</th>
<th>Where Found</th>
<th>Removed Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Norepinephrin (NE)</td>
<td>1. In PNS: at postganglionic terminals of sympathetic nervous system causes sympathetic innervation of heart; lungs “ephrine” for asthmatics = NE</td>
<td></td>
</tr>
<tr>
<td>(Catecholamine)</td>
<td>2. In CNS: a) Neuron cell bodies in the brain stem manufacture NE. These cell bodies (nucleus) comprise (others in the reticular activating system) the locus coeruleus. b) Axons transport NE to other places in the brain. Most important pathway (bundle) is from locus coeruleus through the lateral hypothalamic area (LHA). It is called the Medial Forebrain Bundle (MFB). This is a self-uptake</td>
<td></td>
</tr>
</tbody>
</table>

**Catecholamines:**

<table>
<thead>
<tr>
<th>Neurotransmitter</th>
<th>Where Found</th>
<th>Removed Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Norepinephrine (NE)</td>
<td>1. COMT: Catechol methyltransferase is found in synaptic cleft. It acts on (some) catecholamines.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Then Re-uptake occurs. Neurotransmitter taken back into presynaptic surface through knobs again.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Back inside membrane aft re-uptake, NE is acted up by MAO, monoamineoxidase</td>
<td></td>
</tr>
</tbody>
</table>
stimulating pleasure area important for pleasure, reward.

3. Serotonin (SHT) (Indoleamine)

1. In PNS: in gastrointestinal (alimentary) tract. Receptors are here. (drugs to treat duodenal cancer block serotonin)
2. In CNS: a) serotonin produced in brain stem nuclei, most importantly nucleus of raphe b) axons - the Medial Forebrain Bundle - sends serotonin to rest of brain.
   - Limbic system
   - Paleocortex
   - Amygdala
   - Nucleus of raphe important in sleep: lesions → insomnia

Indolamines:
1. re-uptake
2. MAO (no COMT first)

4. Dopamine (Catecholamine)

1. In CNS: a) produced in brain-stem in substantia nigra (black nucleus) (also elsewhere). b) Substantia nigra projects dopamine fibers through much of brain in bundle called nigro-striatal bundle. c) Through MFB to corpus striatum. Destruction of dopamine endings in corpus striatum → Parkinsonism

Catecholamine:
1. COMT
2. re-uptake
3. MAO
Appendix R: Some General Remark about Exams

Before the Exam:

1) Find out what the exam will cover. This will give you a “set” for reviewing.

*No exam covers everything taught in a course.*

2) Find out what kind of an exam it will be: objective, essay, or a combination of both.

   a. If it’s an essay exam, find out whether there will be several short questions of this type, or whether there will be one or more long ones, or both.

   b. Objective exams require a specific type of response from you; essay exams require something just as specific, but different. There are successful techniques for preparing for and taking each kind. *(See our handouts on “Essay Exams” ad “Objective Exams.”)*

3) Reviewing is a big stumbling block, largely because the task looks so large that the human tendency is to postpone it. This leads to the all-night cram session that sends you into the exam with a blurred mind filled with a jumble of facts and no sense of proportion. *(There is, however, such a thing as sensible cramming: see below.)*

Start reviewing methodically and fairly early. Make human nature work for you.

   a) On reviewing methodically.

   Separate review time from work on daily assignments.

   Review in short chunks every day—at the most, two hours at a time. *(If you work more than that, brain-fag sets in and you’re wasting time. If you must work more than that, give yourself a deliberate, unexciting break of 10 to 15 minutes, before you start again. If you’re interested in why this is a good advice, read pages 31-36 in *How to Study and Take Exams* by Lincoln Pettit.)*
Divide the review material in each course into logical sections and concentrate on one at a time. **Terminology** is a good place to start, if you’re weak on it.

Relieve your mind by reviewing your worst subject first. A lot of what is called review is really learning something for the first time, and naturally this will take the most effort.

1) **On reviewing methodically.**
   Re-review your toughest subject just before the exam—the day before, or even the night before. This is a sensible form of cramming, because it is really review.

2) **On reviewing early:**
   There is such a thing as reviewing too early, if you have been thoroughly on top of the material since the course began.

   Assuming you are average, and there’s plenty you don’t remember, the best time to start is probably about two weeks before a major exam if you’re fairly weak in the subject, or a week before it, if you’re moderately sure of yourself.

4) Make sure you know certain elementary additional facts about the exam, such as where it is, when it is, and what you are expected and allowed to bring with you. Then get there early, with the appropriate materials.

  **For more detail on efficient techniques of reviewing, see our handout “Effective Skill in Reviewing.”**

**During the Exam:**

1. Before you start writing:

   a) **Glance over the whole exam.** This does two things for you: It gives you a “set” on the exam: what it covers, where the emphasis lies, what the main ideas seem to be. Many exams are composed of a series of short questions all related to one particular aspect of the subject, and then a longer one developing some ideas from another area.

   b) **Observe the point value of the questions** and then figure out a rough time allowance. If the total value for test is 100, then a 50-point question is worth about half of your time, regardless of how many questions there
are. A quick rule of thumb for a one-hour test is to divide the point values in half.

c) **Underline all significant words in the directions.**

Many a hapless student has penalized himself because he did not see the word “or” in “Answer 1, 2, or 3.” You do not get extra credit for answering three questions in that case.

“Enumerate” does not mean “discuss.” (See the RSSL handout on “Common Key Words Used in Essay Questions.”)

If you do not clearly understand the directions, ask the proctor.

2. When you begin to work;

a) Tackle the questions in the order that appeals to you most. **There is nothing sacred about the order in which the questions are asked.** Doing well on a question that you feel relatively sure of will be reassuring and will free your mind of tension. The act of writing often unlocks temporarily blocked mental processes; when you finish that question, you will probably find the others less formidable. On the other hand, you may be the type of person who wants to get the big one off his mind first, and save the easy ones “for dessert.” If you are writing in an exam book, be sure to identify the questions clearly.

b) Keep the point values and time allowances in mind.

This may save you from a very common and panic-producing mistake--such as taking 20 minutes of an hour test to answer a 5-point question, and then finding you have 5 minutes left in which to answer a 25-point question. It is impossible to score more than 5 points on a 5-point question!

c) Work methodically, forcing yourself, if necessary, to do so. If you tend to rush at things, slow down. If you tend to dawdle, pace yourself.

3. When you are finished:

   Check your entire paper, for two purposes:
• To see if you have left out any questions you meant to tackle later, and to see if you have followed directions.

• To catch careless errors note: don’t take time to copy answers, unless you’re sure they’re really illegible. You are not graded on neatness, but on accuracy.

After the exam:

An excellent way to learn how to take exams is to analyze what you’ve done on one. What you get your paper back, go over it, noting not only what you did wrong, but why. An hour or two spent in this way may be extremely valuable. See if you detect any point-eating tendencies, such as getting the main idea and then rushing sloppily through the proofs, or simply not following directions, or bogging down on relatively unimportant items, or misreading questions entirely. The next time you face an exam, consciously watch yourself for the weakness.

Also note what you did right! This may save you hours of worrying the next time around. That question on the English test that haunted you for the next several days may prove to be one you did best on. Why did it get such a good reception? Often, such analysis proves genuinely reassuring.
Appendix S: Flaws in Test Construction

Relying on flaws in test construction or on cues is not recommended for three reasons: first, the time spent looking for flaws could be better used in tackling the test straight-forwardly; second, guessing on the basis of some extraneous cue is usually less profitable than guessing on the basis of content; and third, learning to lean on cues will be detrimental when you take the major tests of national reputation, which seldom have the types of flaws described below.

We recognize that many items of teacher-made tests contain flaws. We believe that after a test is over, students would be doing both themselves and the teacher a service to discuss with him the obvious cues. After all, future tests will probably provide not only a greater challenge but also a greater learning experience.

On a poorly constructed test the correct option will generally, but not always, show these characteristics:

a. Length: It will be longer than the incorrect options.
b. Qualification: It will be qualified to give it precision.
c. Generalization: It will be generalized to give it wider application than the incorrect options.
d. Physical position: it will not the first or last option.
e. Logical position: It will not be one of the extremes of a set of options which can be put in some natural order (e.g. options which are all numbers).
f. Similarity or oppositeness: It will be one of two similar elements, or it will be one of two options which state the idea or fact diametrically opposite.
g. Phraseology: It will be in a sentence bearing familiar or stereotyped phraseology.
h. Language: It will not contain language or technical terms which you are not expected to know.
i. Grammar: It will be a grammatically perfect extension of the question itself.
j. Emotive words: It will not contain such extreme words as nonsense, fool-hardy, harebrained, etc.
k. Silly ideas: It will be a flippant remark or a completely unreasonable statement.

Never answer on the basis of these cues when you have other reason to believe that one option is most likely to be correct.

Appendix T: SQ3R: Taking Objective Tests

When you study, anticipate questions … make up questions as you go along. Study big ideas first, then fit in the details. It is easier to master details if they are fitted into a framework.

1. Survey
   - When you receive the test, read directions carefully at least twice — gives “set.”
   - Look over the exam.
   - If any questions or directions are unclear to you, ask your instructor to clear time up for you. It’s his responsibility to answer your questions.

2. Question
   a) Ask yourself questions about time, guessing, points (for each question or section), type of items, etc.
   b) Observe the relative point value of different sections, and plan your time accordingly.

3. Read and Recite
   a) Read each question carefully before marking your answer. Circle key words if necessary. Rephrase the question in your own words.
   b) Reread all questions containing negative words such as “not” or “least” or “all” except which answer is true. These can be very tricky.
   c) If you don’t know an answer, it may be advisable to leave it blank (put a check next to the blank answer so you can come back to it after you answer the rest of the questions) and go on with the test. Later parts of the test may give you cues to remind you of those you skipped.
   d) If unsure, guess (especially if the test score is based on “number right”). Unless the test score is based on “rights minus wrongs,” it always pays to guess.
   e) In a true-false statement all parts of the statement must be true or the entire statement is false. One false detail, date, name in a statement makes the statement false.

4. Review
   a) Go over the test paper carefully before you hand it in.
   b) Don’t be disturbed about other students finishing before you do. Don’t try to be the first one to leave — you don’t win a prize for being the first one finished!!
   c) When you get the test back, analyze your mistakes. You may find a pattern to them that you can avoid next time.
Appendix U: True-False Questions

If a true-false question causes difficulty, the following principle is often helpful: Most such questions are built on the pattern of briefly describing two things and their degree of relationship, i.e., “Some cats are black.” The two “things” in each statement (cats and black in our example) are usually true; statements are made false by changing a word so as to overstate or understate the degree of relationship. The following series of words are usually used:

<table>
<thead>
<tr>
<th>all – most – some – none</th>
<th>positively related – not related – negatively related</th>
</tr>
</thead>
<tbody>
<tr>
<td>always – usually – sometimes – Never</td>
<td>good – bad</td>
</tr>
<tr>
<td>great – much – little – no</td>
<td>is – is not</td>
</tr>
<tr>
<td>more – equal – less</td>
<td></td>
</tr>
</tbody>
</table>

When a student sees one of these words in a sentence, he or she can usually test whether the statement is true by substituting the other words in that series. If none of them makes a better statement than the word already in the sentence, the statement is true.

Thus, when the above statement “Some cats are black” is tested by substituting “All cats are black,” “Most cats are black,” or “No cats are black,” the original statement is shown to be true.

Knowing this pattern, a student can go to the key word in a true–false statement and not worry about possible exceptions to each word in the statement.

Many students have learned to look for the key words “no,” “never,” “ever,” “all,” and “entirely,” because they usually indicate that the statement is false; it is difficult to make any statement that is true of all items or no items to which it refers. Knowing this tendency of students to look for these specific words, however, many instructors work hard to formulate some statements in which the use of these terms makes them true, e.g. “An island is entirely surrounded by water” or “All men are mortal.”

Care also should be used in answering a true-false statement containing two independent clauses. If one of these is true and the other is false, the whole statement must be marked “false.”

(from F. Robinson, Effective Study (NJ: Harper & Row, 1970), pp. 63-64.)
Appendix V: Scoring on Objective Exams
“Ten Tips for Educated Guessing”

1. Option B or C of a 4-part multiple choice is keyed correct about 60% of the time.

2. The longest answer is more often right, generally speaking.

3. If five alternatives appear periodically (only by about 10% of items) on an otherwise 4-item based test, 80% of these are “keyed” correct to “E” (5th response).

4. When two direct opposites appear, one of them is generally the correct response.

5. The “odd” technical term among several alternatives is usually an incorrect (non-keyed) response.

6. Seek out agreement between the subject and stem of a question and the verb or answer alternatives. If they don’t agree, that answer is probably wrong.

7. In a True-False test, absolutes and universals, e.g. always, only, never usually render an item false. Also, answers which are only partly true or partly false are to be marked false. Words like sometimes, may, generally, and perhaps usually signal a true.

8. The general principle of learning most applicable to scoring well in an objective exam is “recognition,” not recall or remembering.

9. Always check out prior to the exam, whether there is a penalty for guessing to be applied in scoring the test. (Usually R–W/A–1, where R = Rights, W = Wrongs, and A = # of alternative answers.)

10. In a multiple choice exam, if the options can be narrowed to 2, guessing can become at least a 50% correct strategy. If only 3 alternatives remain, guessing is still a preferred strategy, although it yields points at a lower rate.
Appendix W: Taking Essay Exams

1. Don’t panic.

2. Survey the entire exam.
   a) How many questions are to be answered? Select the items you plan to answer.
   b) How many points does each item count? Jot down the approximate time to spend on each question according to the difficulty and importance of each question.
   c) Important: Keep track of your time so you don’t spend too much time on any one question.
   d) Jot down any ideas that occur to you as you survey the test.

3. Read.
   a) Read directions carefully—does the question ask you to identify, list, compare, etc.
   b) Read the test question carefully before writing. (Look for key words, underline these words.)
   c) Restate the question in your own words.
   d) Jot down points or outline beside each question before you start writing.

4. Write.
   a) Tell the teacher what you’re going to say, say it, and summarize what you have said.
   b) Start off by restating the question in your own words.
      Then give the main ideas, explain terms, give examples (supporting points for main ideas)
Support Your Ideas with Facts and Examples

Sample question: What are the major problems a student faces at the University of Rhode Island?

Answer plan: There are many difficulties a student faces at the University of Rhode Island. The major ones are (1) large classes, (2) lack of housing space, (3) teachers don’t care, etc.

c) Where appropriate include specific facts and examples to support your answer. These give your instructor evidence that you really know what you are talking about.

d) Write neatly.

e) Write something for each item — don’t leave an item blank.

f) If time is running out, jot down an outline for the rest of the answer.

5. Review.

a) Don’t be disturbed about other students finishing before you do. Take your time and you’ll do better on the exam.

b) Don’t try to be the first one to leave the room—you don’t win a prize for being the first one finished! You may feel that the student who leaves first it the bright student; but maybe he or she is the student who doesn’t know the answer!

c) When you have finished, read over your answers.
Appendix X: Some Don’ts on Answering Essay Questions

1. Don’t Rush. Time spent thinking before you write is more valuable than time spent writing without thinking.

   A high-caliber 200-word answer is a great deal better than a rambling, disorganized, incoherent 500-word answer.

   Never mind if most people around you start writing before you do. They may be writing very poor answers.

2. Don’t Answer a Question You Haven’t Been Asked.
   
a. **Read the directions.** If you are told to answer A, B, and either C or D, you will get no extra credit for answering all four, and you may have wasted valuable time you needed on another question.

b. **Understand the question.** (See the handout on Essay Questions.)

c. **Don’t Try to “Snow” Your Instructor.**

   If you don’t know the answers, or can’t think of one, don’t write nervously about something else, in the hope that your instructor will give you some credit for knowing something. Nothing is easier to detect than the “snow job,” and if you try it, you will get a certain dubious reputation for near-dishonesty.

d. **Don’t Try the Scattershot Technique.**

   Don’t fire all the information you have managed to accumulate, in the hope that some of it will hit the target. Just take time to know what the target is, and direct your answer to it. Instructors recognize and discount the scattershot technique, and it does not impress them. It irritates them.

e. **Don’t Give Your Opinion Unless You are Asked for It.**

   *This is a common mistake, particularly when you have strong opinions.*

   **Example:** The question is: “In *Catcher in the Rye*, Holden Caulfield asks a prostitute to come to his room, but then he sends her away. Why does he send her away?”
**Bad answer:** “He is ashamed of his immoral desires.” **Comment:** Not only is this untrue, but the writer has made a moral judgment; nobody asked him what he thought of what Holden did. The question asks why Holden did it. Answer such questions in their own terms, from evidence in the text.

**Good answer:** “Holden says, ‘I just didn’t want to do it. I felt much more depressed than sexy, if you want to know.’ The girl seemed unfriendly and very young, and Holden was sorry for her.”

f. **Don’t Avoid Words Because You Can’t Spell Them.** Just indicate your doubt somehow. Write sp? Above the troublesome word, for instance.

**Common Key Words Used in Essay Questions**

**Compare**
When you are asked to compare, you should examine qualities, or characteristics, in order to discover resemblances. The term compare is usually stated as compare with, and it implies that you are to emphasize similarities, although differences may be mentioned.

**Contrast**
When you are instructed to contrast, you should stress dissimilarities, differences, or unlikeness of associated things, qualities, events or problems.

**Criticize**
In a criticism you should express your judgment with respect to the correctness or merit of the factors under consideration. You are expected to give the results of your own analysis and to discuss both limitations and good points.

**Define**
Definitions call for concise, clear, authoritative meanings. In such statements, details are seldom required, but boundaries or limitations of the definition should be briefly cited. You must keep in mind the class to which the item to be defined belongs and whatever differentiates it from all other classes.

**Diagram**
In a question which specifies a diagram, you should present a drawing, chart, plan, or other graphic representation if your answer. Generally the student is also expected to label the diagram and in some cases to add a brief explanation or description of it.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss</td>
<td>The term <strong>discuss</strong>, which appears often in essay questions, directs you to examine, analyze carefully, and present considerations pro and con regarding the problems or items involved. This type of question calls for a complete and detailed answer.</td>
</tr>
<tr>
<td>Enumerate</td>
<td>The word <strong>enumerate</strong> specifies a list or outline form of reply. In such questions you should recount, one by one, in concise form, the points required.</td>
</tr>
<tr>
<td>Evaluate</td>
<td>In an evaluation question you are expected to present a careful appraisal, stressing both advantages and limitations. Evaluation implies authoritative and, to a lesser degree, personal appraisal.</td>
</tr>
<tr>
<td>Explain</td>
<td>In explanatory answers it is imperative that you clarify, elucidate, and interpret the material you present. In such an answer it is best to state the “how” and “why,” reconcile any differences in opinion or experimental results, and where possible, state causes. The aim is to make plain the conditions that give rise to whatever you are examining.</td>
</tr>
<tr>
<td>Illustrate</td>
<td>A question which asks you to illustrate usually requires you to explain or clarify your answer to the problem by presenting a figure, diagram, or concrete example.</td>
</tr>
<tr>
<td>Interpret</td>
<td>An interpretation question is similar to one requiring explanation. You are expected to translate, exemplify, solve or comment upon the subject and usually to give your judgment or reaction to the problem.</td>
</tr>
<tr>
<td>Justify</td>
<td>When you are instructed to justify your answer, you must prove, or show grounds for, decisions. In such an answer, evidence should be presented in convincing form.</td>
</tr>
<tr>
<td>List</td>
<td>listing is similar to enumeration. You are expected in such questions to present an itemized series or a tabulation. Such answers should always be concise.</td>
</tr>
<tr>
<td>Outline</td>
<td>An outline answer is organized description. You should give main points and essential supplementary materials, omit minor details,</td>
</tr>
</tbody>
</table>
and present the information in a systematic arrangement or classification.

**Prove**

A question that requires proof is one which demands confirmation or verification. In such discussions you should establish something with certainty, by evaluating and citing experimental evidence, or by logical reasoning, with sufficient examples.

**Relate**

In a question that asks you to show the relationship or to relate, your answer should emphasize connections and associations, usually in descriptive form.

**Review**

A review usually specifies a critical examination. You should analyze and comment briefly, in organized sequence, upon the major points of the problem. Sometimes, however, a review question simply asks for a list.

**State**

In questions that direct you to specify, give, state, or present, you are called upon to express the high points in brief, clear form. Details and examples may be omitted.

**Summarize**

When you are asked to summarize or present a summary, you should give in condensed form, the main points or facts. All details, illustrations, and elaboration are to be omitted.

**Trace**

When a question asks you to trace a course of events, you are to give a description of progress, historical sequence, or development from the point of origin. Such questions may call for probing or for deductions.
Appendix Y: Exam Time

A. Look the test over.

B. Read the directions. You may save yourself work.
   
   *Examples:*
   
   1. Answer questions #1, 2, or 3. Note the or.
   2. Check answer(s). Means where may be more than one answer.

C. Do the easy questions first.

D. If you have a choice of questions, try to do the ones that count the most.

E. Essay questions should contain the facts, show their relationship to one another and support your conclusions from your own readings and thoughts.

F. Objective Tests:

   1. Answer all questions you are sure about first and put a small mark by the ones that give you trouble.

   2. If you guess, put down the first answer that occurs to you.

   3. If is usually not wise to change an answer, unless you are positive that another answer is right.

   4. Chances are that “always,” “never,” “all” or “none” make a false statement. However, each statement must be read critically.

   5. In multiple-choice questions, first eliminate the obviously wrong answers, then make your choice from the remaining ones.

   6. If you can narrow your answer to two choices, it is usually better to guess than not to mark it.

   7. In matching, match the items you are sure of; then decide on the more difficult ones.

   8. In completion questions, if possible, insert a technical term or key phrase exactly as if appears in the textbook.
9. If you can’t remember the exact textbook answer, put down an answer in your own words that is an approximate word or phrase.

G. Finally, look over your test paper:

- Have you answered all the questions you were supposed to?
- Are your questions numbered correctly?
- Can you make any corrections in spelling, punctuation or grammar?
- Can you fill in any last minute information?
- Is your name on each page of your test paper?