SELF-MONITORING: THE EFFECTS OF VARYING DEGREES OF CONTACT WITH A STUDY-SKILLS COUNSELOR ON THE ACHIEVEMENT AND COMMITMENT OF COLLEGE STUDENTS

by

Margaret Ann Sloss

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SIGNED: Margaret Ann Hess

APPROVAL BY THESIS DIRECTOR

This thesis has been approved on the date shown below:

Ronald W. Henderson
RONALD W. HENDERSON
Professor of Educational Psychology

April 25, 1977
Date

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ABSTRACT

This experiment was designed to assess the effects of varying degrees of contact with a study-skills counselor on two kinds of behaviors of college students: academic achievement (test scores) and commitment, defined as the decision to continue using the self-monitoring process to structure their study habits.

The 75 students were selected from volunteers in an introductory Educational Psychology class. Within the limits of individual schedules, subjects were assigned to each of five groups. One group received no instruction; two groups received two initial weekly one hour training sessions. The fourth group, in addition to the training sessions, met with the counselor on an individual basis for the next three weeks. The fifth group, in addition to the training sessions, met weekly as a group with the counselor. The results indicated that ongoing counseling (either individual or group) had a positive effect on record keeping (commitment). However, there were no differences among groups on academic achievement.

CHAPTER 1

INTRODUCTION

In recent years researchers have studied the technique of self-monitoring, which is a therapeutic tool that can be used in counseling situations to change people's behavior. Self-monitoring consists of systematically observing and keeping record of an aspect of one's behavior. Such procedures make individuals more accurately aware of their actions. In self-monitoring programs the systematic observation and record-keeping are supplemented by varying combinations of the following:

1. The establishment and periodic reevaluation of achievable goals.
2. The development of an awareness of discrimination stimuli that trigger certain behaviors.
3. The use of self-administered external reinforcement contingent on the performance of desired behaviors.
4. The use of verbal self-reinforcement.
5. The introduction of behaviors that will obstruct the occurrence of undesired behaviors.

Individuals define these activities differently by delineating the way they act, establishing their own goals, determining their particular reinforcement needs, etc.

The Value of Self-Regulation

There is a growing trend for clinical psychologists to use techniques which assume that people can take more control over their lives instead of being victims of immutable personality characteristics (Mischel, 1968). Kanfer and Karoly (1972) suggest that social, cultural, and technological changes have caused a reevaluation of the role that "individual self-determination" can play in changing behavior. They maintain that self-regulation is essential for people to organize some of the chaos in their constantly changing lives. They suggest that as a consequence of the inconsistency and transcience of reinforcing practices in one's culture and the impossibility (much less undesirability) of continuous external monitoring, people must develop more control over their own actions.

Effectiveness of Self-Monitoring

The research conducted in the field has demonstrated that the effectiveness of self-monitoring (s-m) for changing some behaviors varies. In some early studies in which s-m was an extraneous technique it seemed to change behavior (Fox, 1962; Ferster, Nurnberger, and Levitt, 1962; Goldiamond, 1965). However, since s-m was not the focus of these experiments, the conditions influencing s-m were not carefully controlled.

Intrigued by these experiments, researchers began to explore s-m in more depth. Experiments which demonstrated the effectiveness of s-m included Lipinski and Nelson (1974) who, experimenting with eight college students in two introductory education classes, focused on face touching. When students were requested to record the number of times they touched their faces, independent observers reported a decrease in frequency of this behavior. This finding corroborated the earlier results of McFall (1970), Broden, Hall, and Mitts (1971), and Herbert and Baer (1972), who reported studies in which s-m was helpful in changing behavior. McFall (1970) found that college students who monitored their own smoking in class significantly increased their cigarette consumption, whereas those who monitored the number of times they considered smoking but refrained, tended to decrease.

Broden et al. (1971) demonstrated that the disruptive classroom behavior of two junior high school students decreased dramatically when the students recorded their own behavior. Johnson and White (1971) asked undergraduate college students to observe and record their studying behavior for a college course. Their findings support the hypothesis that self-observation changes behavior in a predictable direction. Herbert and Baer (1972) found that parents increased the amount of attention they gave to desired behavior of their children when they self-monitored.

Romanczyk, Tracey, Wilson, and Thorpe (1973) demonstrated that self-monitoring decreased overeating.

A number of investigators exploring a variety of behaviors found that s-m was not effective in changing behavior. Mahoney (1973) and Mahoney, Moura, and Wade (1973) did not find self-minotiring of eating habits to be effective as a primary weight-reduction technique. Bellack, Rozensky, and Schwartz (1974) suggest that the seemingly contradictory results stem from the reason that self-monitoring is not an independent invariant phenomenon but a variable response that interacts with the behavioral chain. In weight-reduction programs eating habits, food intake, or weight could be monitored. Behaviors monitored must be defined specifically for the results desired. Berecz (1972), Hall (1972), McNamara (1972), and Stollak (1967) also found s-m ineffective in the situations to which they applied it. The inconsistent results reflect the varied procedures involved and the diverse factors and the variables, that probably affect self-monitoring.

Factors Involved

Several theories specify factors at work within s-m that would explain why it is effective in changing some behaviors and not others.

1. Informational Feedback: Kanfer (1970) and Locke, Cartledge, and Koeppel (1968) suggest that the

individual receives informational feedback through observing himself. Bellack, Rozensky, and Schwartz (1974) suggest that self-monitoring itself does not change behavior, but the process provides information which may or may not be useful depending on the content, time, and nature of monitoring.

2. Cueing: Johnson and White (1971) and Kazdin (1974) consider cueing a possible process in initiating change. The very act of systematically watching one's own actions reminds the subject of the observed behavior, thus increasing or decreasing the rate.

These factors and/or others may be at work, depending on the nature of the behavior, the subjects, the experimenter, the situation, and the aspects of s-m that have been chosen for emphasis.

Influential Variables

Because several variables had differed across s-m studies, the need to further analyze the situations in which self-monitoring is effective became obvious to some experimenters (Lipinski and Nelson, 1974; Romanczyk et al., 1973; Romanczyk, 1974; Kazdin, 1974; Jeffrey, 1973). Four of those variables are described below:

1. The behaviors selected to be changed have included weight loss, smoking, and studying, among others.

The behavior's amenability to change through s-m varied. For example, monitoring the number of calories one eats or monitoring the amount one weighs at the day's end had different results.

2. The desire to change has varied. Subjects have ranged from highly motivated subjects to juvenile delinquents who were confined through a court decision to live in a half-way house.

Johnson and White (1971), and Kanfer (1970) propose that the way people feel about a behavior when they enter a situation affects the changes which may occur. Thus, a desired behavior will increase in frequency--an undesirable behavior will decrease. Kazdin (1974) also said that this attitude influenced the direction and magnitude of change in a self-monitoring situation.

3. Training given to subjects included any combination of self-observation instructions, awareness to stimulus cues, contingency consequation, incompatible behavior, self-reinforcement, and goal setting.

4. The experimenter or therapist involvement can range from non-involvement to intensive involvement in the amount of time spent discussing the changes that did or did not occur.

Romanczyk et al. (1973) have attempted to assess the effects of different s-m variables and/or their interactions. Using a "sequential dismantling" strategy developed by Lang (1969) they found that s-m plus daily graphing of daily caloric intake without therapist contact or any other self-control techniques effectively helped obese individuals lose weight. They found this true again in another study, but this time the addition of ther self-control methods resulted in a statistically significant greater treatment effect than that obtained with s-m alone.

Romanczyk (1974), in his attempt to study the parameters of s-m, repeated the 1973 experiment. He found that s-m of daily caloric intake without therapist contact was as effective in producing weight loss as either of the full treatment groups. However, s-m of daily weight was not effective. He proposed that it was the frequent and immediate punishment of monitoring caloric intake that worked effectively, not the s-m itself.

Other experiments included Kazdin (1974) who explored the specific effects of s-m, valence, goal-setting, and feedback. He advocates the additional dismantling of treatments to further isolate the effects of s-m. Jeffrey (1973) suggests that if s-m is being used as an independent variable, then its effects must be clearly isolated and controlled.

Experimenter Effects

One variable of an experimental s-m situation which has been investigated is the effect of the experimenter or therapist. Basic issues still to be resolved are the amount and form of external control needed to maintain the use of self-control (Mahoney, 1972; Bellack, Schwartz, and Rozensky, 1974).

The therapist's role often has been to start the program, to provide information and directions, then to meet with the client regularly until the behavior has changed. This issue of the necessity of a regular ongoing relationship is controversial.

Ongoing Experimenter Relationship Not Necessary

Marston and Feldman (1972) maintain that an external agent is necessary only to help establish initial commitment. They recognize a cognitive set that is related to the focal response to be controlled. They say that this conscious experience is based on evaluative attitudes which, when vocalized, direct the person toward making certain responses and reinforces appropriate responses. The individual contrasts the payoffs and when a behavior is seen as self-defeating, he may make a commitment to change. Marston and Feldman say that when this commitment is established, some persons maintain the change through subvocal reference to their commitment. They need little external support as long

as the initial commitment within the cognitive set is strong enough.

Ongoing Experimenter Relationship Necessary

On the other hand, Kanfer and Karoly (1972) state that the experimenter or counselor serves to maintain the program by the ongoing application of external control. Coining the phrase "beta-control" for an individual's control over himself and "alpha control" for the external control, they conclude that the two constantly interact and that beta control depends on evaluative reactions of others.

Bellack, Schwartz, and Rozensky (1974) suggest that neither of the conflicting hypotheses have been adequately examined. Using their previous weight reduction study (Bellack, Rozensky, and Schwartz, 1973) as the foundation for this investigation, they examined the role of external control as a supplement to self-control. Three groups were used, one having no ongoing contact, one having contact by mail only, and one meeting regularly with an experimenter. They found that the degree of relationship was less important than the presence or absence of such control when the primary focus is self-control. This finding provides support for Kanfer and Karoly's (1972) contention that continuing external control needs to be incorporated into a program in order to maintain the use of self-control.

There have been inconsistent results in the research studying the necessity of ongoing contact due to the complexities in the varying situations. Harris and Bruner (1971), Mahoney (1973), and Quick (1973) applying s-m to weight reduction studies found that with minimal contact, groups made no significant change. Hall (1972) and Mahoney (1973) found regular contact ineffective while Harris (1969) successfully used the self-monitoring treatment with subjects who wanted to lose weight. The experimental groups met with the counselor twice a week for approximately two months. Bellack et al. (1973) also found regular contact to be effective. Bellack, Schwartz, and Rozensky (1974) in a weight reduction study maintain that there does seem to be an increased chance of success when some external control is included, although the function of that control is uncertain.

In order to shed more light on the controversy regarding the need for ongoing experimenter/counselor contact, this study was designed to examine the effects of varying degrees of contact on five groups with a study-skills counselor (using a s-m technique) on:

1. College students' achievement.
2. College students' commitment to continue using the s-m process.

The study investigated the following hypotheses:

1. There will be no difference in achievement among groups with varying degrees of exposure.
2. There will be no difference in achievement between the students who received the ongoing individual counseling and those who received ongoing counseling in a group.
3. There will be no difference in commitment to continue using the self-monitoring process among the four groups who received the training.

CHAPTER 2

METHOD

In order to determine the effects of varying degrees of contact with a therapist on achievement and commitment to continue using self-monitoring, five groups of students received different treatments. The types of training include an introduction to the techniques and theories only, that introduction plus follow-up on an individual basis and that introduction plus follow-up on a group basis.

Subjects

At the opening of the 1976 Spring semester, college students who enrolled in an Introductory Educational Psychology course were told that a series of sessions was available in How to Improve Study Habits.

The course consisted of three lectures per week in a lecture hall. Attendance was not required. No formal discussion meetings were offered, although time was made available for students to discuss the material with the professor and/or teaching assistants.

Of 160 students who volunteered to participate, 75 were selected, primarily on the basis of whether their schedules fit in with the times the sessions were to be held. The students were not informed that this was an

experiment; they were simply told of a service being offered. No class credit of any kind was offered and the material covered in their psychology course was to be kept out of the study sessions. The study sessions were to be conducted by the author. The instructor was minimally informed about the proceedings.

Procedures

Subjects were randomly assigned to each treatment condition within the limitations of their daily schedules. There were five groups.

1. The Control Group: The control group was informed that more students had volunteered than could be accommodated at the present time, but that they would be contacted again after Spring break. These students received no treatment or knowledge of the treatment.

2 and 3. Initial Sessions Only: Two groups were given the two weekly initial training sessions during which the s-m techniques were explained and practiced. These groups were to turn in records of the amount of time they had spent studying for the Introductory Educational Psychology course each time they took their weekly quiz.

4. Initial Sessions Plus Ongoing Individual Contact: The students in Group 4 were also given the

introductory training sessions. However, in addition, they met individually with the counselor for the next three weeks during which they discussed and explored their progress. They were also asked to turn in their study record sheets with their weekly quiz or at the study session.

5. Initial Sessions Plus Ongoing Group Contact: The students in Group 5 were also given the introductory training sessions. However, they met with the Experimenter for the next three weeks on a weekly basis, as a group, instead of on an individual basis. Although the sessions were en masse, the discussions were conducted on a one-to-one basis. However, the students could listen to the discoveries of the others. They were also asked to turn in their study record sheets at the study session.

The two initial training sessions occurred once a week for the first two weeks. Then Groups 4 and 5 met for an additional three weeks.

Description of the Training Sessions

The First Session

The four experimental groups took part in the first training session which consisted of a discussion of

self-observation and recording. The training sessions included a combination of the following components: explanation, example, student participation, counselor feedback, and discussion. The following elements were emphasized:

1. A brief introduction of the counselor.
2. A general discussion of the underlying concepts of self-responsibility, personal awareness, self-observation, and self-recording.
3. An analysis of study conditions that promote enduring efficient study habits. (These included such methods as trying to study at consistent times, studying at one place that is well lit and comfortable, and taking occasional breaks.)
4. A discussion of the questions that are important to ask oneself:
   a. What kinds of behaviors do I contribute to the situation?
   b. What kinds of behaviors do I want to exhibit more of?
   c. What kinds of behaviors do I want to eliminate?
5. An explanation of how to observe one's own behaviors. (The counselor modeled, observing her own study habits. Topics included internalization [what one says to oneself], surrounding conditions, how, when, and what one studies.)

The counselor stressed the need for developing an awareness of these issues. Then the students were given an opportunity to practice looking objectively and closely at their individual study habits. The ensuing discussion centered around examples:

6. Specific behaviors to be changed or acquired were defined. During the discussion, the process of operationalizing the specific behaviors was modeled. Expressions such as "I'm lazy; I can't concentrate; I get sleepy" were described as imprecise. The importance of being aware of these was stressed, so that changes could be made. Each person in the group took a turn at the activity and immediate feedback from the counselor was offered to clear up any ambiguities.
7. Each person attempted to answer all of the questions mentioned in sections four and five in an effort to recall the internalizations that he used to encourage and discourage himself.
8. The students were asked to keep records of their study habits for the Educational Psychology class. The records were to be turned in weekly with the exam, or, in the case of two of the groups, during the meetings.

The Second Session

During the second session with each of the experimental groups the initial concepts were reviewed and various behavioral techniques were explained. These included goal establishment and analysis, awareness of discrimination stimuli, external reinforcement, verbal reinforcement, and the introduction of behaviors that obstruct the occurrence of undesired behaviors. The counselor used the same teaching techniques that were used in the first session: explanation, modeling, student participation, feedback from the counselor, and discussion.

At this point the counselor presented plans for the balance of the project to the various groups.

1. Students would all continue to send in their study time report with their quizzes.
2. It would be up to the students in Groups 2 and 3 to continue using the technique since the counselor did not have time for all volunteers.
3. Groups 4 and 5 received information about times and locations for the meetings that would follow.

The Follow-up Sessions for Groups 4 and 5

The follow-up sessions consisted of analysis and evaluation. Students were asked to continue to analyze their problems by describing the following elements:

1. The cues for the behavior's occurrence:

a. What happens afterward?

b. How can I use this information?

2. Specification of behavior to be acquired or to be stopped.

3. Keeping a record.

4. Verbal rewarding of the student.

5. Student self-praise.

Evaluation of changes was structured by describing the following elements:

1. Did I change?

2. What happened? What did I find out about myself?

a. What were the changes?

b. Did I improve? Do I want to do more?

c. Did I stay the same? Why?

d. It was not a problem after all. Let us work on another problem.

3. What goals shall I set?

a. Precisely how much better do I want to be?

b. Analysis of the week's record in contrast with the previous week's.

c. Planning specifically the changes to be made.

4. How should I reevaluate my progress?

a. Did I meet my goal?

b. Did I set it too high?

c. Should I continue longer?

d. Am I ready to select a new behavior?

e. Am I satisfied and should I continue it longer?

Although this basic outline was followed, modifications were made which allowed for individual differences among students. For example, two of the students in a group required much more intensive and extensive personal counseling before they could begin to focus on study habits. Neither of them understood why they were in school. Discussions of their topics of study and their interests occurred during the sessions. Once these were resolved and motivation was more stable, then the remainder of the sessions were spent analyzing specific study behaviors to self-monitor.

The follow-up sessions consisted of analysis and evaluation as delineated in the above outline and decisions to change or remain with the goals that had been set. The behaviors that were emphasized included:

1. Find time.
2. Eat breakfast.
3. Catch up in a class.
4. Shut out distractions.
5. Organize time and use it efficiently.
6. Catch myself when I let my mind wander.
7. Not let myself doze off when I start to study.
8. Study half an hour more on each subject.

9. Start sooner; put in more time.
10. Determine the appropriate length of study time that is conducive to concentration.
11. Set a certain time to study.
12. Improve study conditions.
13. Study at the appropriate time.
14. Listen to internalization.
    a. Be more positive about school.
    b. Not get discouraged.

Throughout all sessions the counselor demonstrated the following affective attitudes:

1. Obvious concern for and interest in the problems and the students.
2. Pleasure and enthusiasm in the project.
3. Supportiveness toward each person.
4. Enthusiasm toward the process of growth, change, and improvement.
5. Personal commitment toward working through the problems and boring times. A personal commitment toward improving a situation that an individual finds dissatisfactory.

Instrumentation

Weekly multiple-choice quizzes consisted of ten items per test. Scores were posted before the following class session. The only attempt made by the author to

control content validity was to select the items from a teacher's handbook and from class lectures. The professor of the class based his lectures on the material in the text. Although reliability was assumed, no measurement was made. Both the instructor and teaching assistant agreed that the items had face validity.

The number of correct answers for each of the eight weekly quizzes measured academic performance. The eight quizzes were combined into four trials. Trial 1 consists of quizzes 1 and 2, Trial 2, quizzes 3 and 4, and so on. This action was taken partially to increase the reliability (since it doubled the number of items) and partially to allow for absences. Since the professor offered the students the option of dropping their lowest grade, many of them did not take one of the quizzes. No student missed two consecutive quizzes; therefore, all missing data points could be compensated for by combining data. This procedure eliminated the necessity of throwing data out or averaging all of the scores by group.

The records that the students kept (see Appendix A) consisted of recordings of the amount of time each student studied, the subject he was studying, and the place he was studying. Students wrote down the information whenever they studied for this particular Educational Psychology course. These records were turned in either during the study session or at the same time that the students turned in their quiz.

Experimental Design

The design is depicted in Table 1. Within the limitations of daily schedules, students were randomly assigned to one of the five groups.

Table 1. Experimental Design

Group	Quiz 1	Quiz 2	Quiz 3	Quiz 4	Quiz 5	Quiz 6	Quiz 7	Quiz 8
A[a]	NT	NT	NT	NT	NT	NT	NT	NT
B	NT	IS	IS	NT	NT	NT	NT	NT
C	NT	IS	IS	NT	NT	NT	NT	NT
D	NT	IS	IS	IM	IM	IM	NT	NT
E	NT	IS	IS	GM	GM	GM	NT	NT

[a]Control.

NT = No Treatment
IS = Introductory Session
IM = Individual Meetings with counselor
GM = Group Meetings with counselor

The experiment provided both between and within group analysis of the relative effects of contact with the counselor. Time spent with the counselor was the independent variable and effects on the academic performance and on the number of records that were sent in weekly were measured.

CHAPTER 3

RESULTS

Academic Achievement

Two-way analysis of variance on a mixed design with repeated measures was performed on the test scores. The first nominal scale was group type, while the second nominal scale was trials. As both Figure 1 and Tables 2 and 3 illustrate, there were no differences among groups. Although there was a main effect for trials, Tukey's post-hoc test (Kirk, 1968) to compare pairs, performed for all four trials, offered no further clarification.

Study Time Records

A one-way analysis of variance revealed a significant main effect (at the .05 level) for groups in the number of records returned. The mean frequencies of records kept by each group are presented in Table 4. Post-hoc tests, employing Tukey's HSD, indicated a difference between those who met with the counselor on an ongoing individual basis and those students who received only the initial training sessions (HSD = 4.349, df = 3.51, $p < .01$).

There was no significant difference in the number of records kept between the students who met with the counselor on an ongoing individual basis and those who met as a group

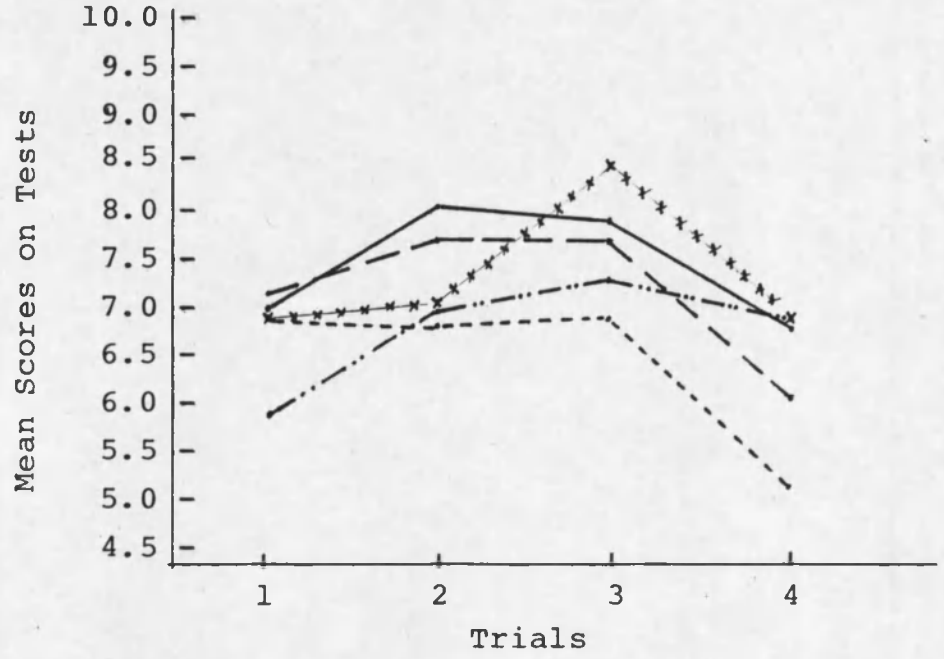

Figure 1. Mean Performance on Achievement Tests

Table 2. Analysis of Variance--Achievement Tests

Source of Variation	DF	Mean Square	F	Signif. P
Groups	4	8.0662	1.523	.2063
Error	59	5.2973		
Trials	3	17.5374	7.830	.0002
Interaction	12	3.617	1.615	.0906
Error	177	22.397		

Table 3. Mean Scores on Achievement Tests

	Trial			
Group	1	2	3	4
1--Control N = 12	$\bar{x}$ = 6.96 SD = 1.34	$\bar{x}$ = 6.88 SD = 1.96	$\bar{x}$ = 6.88 SD = 2.07	$\bar{x}$ = 5.17 SD = 2.43
2 and 3 (Initial sessions only) N = 12	$\bar{x}$ = 7.00 SD = 1.55	$\bar{x}$ = 8.08 SD = 1.15	$\bar{x}$ = 7.85 SD = 1.819	$\bar{x}$ = 6.808 SD = 1.910
4 (Ongoing contact-- individual) N = 11	$\bar{x}$ = 7.18 SD = 1.44	$\bar{x}$ = 7.73 SD = .786	$\bar{x}$ = 7.73 SD = 1.62	$\bar{x}$ = 6.14 SD = 2.47
5 (Ongoing contact-- group) N = 7	$\bar{x}$ = 6.93 SD = 1.64	$\bar{x}$ = 7.07 SD = 1.86	$\bar{x}$ = 8.50 SD = 1.00	$\bar{x}$ = 6.93 SD = 2.34

Table 4. Mean of the Number of Records Students Turned In

Group 2	Initial two training sessions	.5385
Group 3	Initial two training sessions	1.7273
Group 4	Ongoing individual treatments	3.2308
Group 5	Ongoing group treatments	2.1333

on an ongoing basis. There also was no difference between those who met on an ongoing basis and those who had only the two initial training sessions.

CHAPTER 4

DISCUSSION

Academic Achievement

The results indicated that there was no significant difference in achievement between groups. This left the first hypothesis tenable that there would be no differences in achievement among the five groups. Hypothesis 2, stating that there will be no difference in achievement between the students who received the ongoing individual counseling and those who received ongoing counseling in a group, also remained tenable. Possible reasons for the lack of differences in academic performance include the following:

1. The weekly multiple choice quizzes may not be an accurate reflection of the learning that occurs, or they may be too indirect a measurement of the effects of learning the s-m process. Thus, the validity of the assessment procedures may need to be increased.
2. In order to reduce the possible statistical error, it may be useful to increase the number of subjects. To avoid depersonalization, the number of groups who receive the treatments should be increased, rather than increasing the size of a group.

3. The treatment may take longer than the five weeks to have sufficient effect.
4. There may be a lack of reliability of the assessment procedures.

Study Time Records

Hypothesis 3, stating that there will be no difference in commitment to continue using the s-m process for the entire period among the four groups who received training was rejected. As can be seen in Table 2, the students who had the most contact with the counselor turned in the most records. The results indicated that students who met on an ongoing individual basis with the counselor sent in significantly more records than did any of the students who only participated in the two initial training sessions. This confirms Kanfer and Karoly's (1972) contention that continuing external control is an important process to maintain the use of self-control. However, there is a possible additional complexity to the theory, since those who met on an individual basis turned in more records than did those who met in groups although the difference was not significant. Since there was a trend for the ongoing group meetings to have a positive effect, this issue could be further explored. Group meetings are less time consuming than meeting with individuals. Perhaps increasing the N would decrease the statistical error. Or if the changes in

treatment described above were implemented, the students might turn in more records.

Various aspects of the treatment may need to be adapted: How did the treatment affect the processes at work in self-monitoring which were mentioned earlier? These include the evaluative set, informational feedback, and cueing.

1. Evaluative set: Since the sample consisted of volunteers, this author has no suggestions for making certain the participants care enough.
2. Informational feedback: This feedback could possibly be enhanced by having the students monitor and keep records on the particular behavior they choose to work on, instead of having everyone keep records on the amount of time they spent studying.
3. Cueing: This also may have been enhanced by individualizing the record keeping.
4. Function of the External Control: Bellack, Schwartz, and Rozensky (1974) had considered the function of the external control uncertain. This function will not only vary between counselors, but will probably depend on the individual subject's needs.

The results indicated that students who met on an ongoing individual basis with the counselor sent in significantly more records than did any of the students who

only participated in the two initial training sessions. There were no differences among groups on academic achievement.

APPENDIX A

RECORD-KEEPING FORMAT

Name_____

Records for Monitoring Study Habits:

	Date	Where	What	When	Length of Time
Sun.					
Mon.					
Tues.					
Wed.					
Thurs.					
Fri.					
Sat.					

Total length of time:_____

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