Effects of the Center for the Self-Management of Academic Performance on High Risk Students

Connie J. Wittkopp

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EFFECTS OF THE CENTER FOR THE SELF-MANAGEMENT OF ACADEMIC PERFORMANCE ON HIGH RISK STUDENTS

by

Connie J. Wittkopp

A Thesis Submitted to the Faculty of The Graduate College in partial fulfillment of the requirement for the Degree of Master of Arts Department of Psychology

Western Michigan University Kalamazoo, Michigan December 1984
The purpose of the present study was to evaluate the effectiveness of a behavioral package designed to help keep high risk students in school. Thirty-four undergraduate students on academic probation were referred to the Center for the Self-Management of Academic Performance by the College of Arts and Sciences. These students were divided into two groups: an experimental group which consisted of 21 students and a control group which consisted of 13 students. Members of the experimental group were exposed to a treatment package which included behavioral contracting, lectures, and mandatory attendance at a study center; members of the control group only attended lectures. Mean grade point averages of the two groups did not significantly differ during the semester in which treatment was in effect. However, the mean grade point average of each group was significantly higher during the semester in which the study was conducted than during the preceding semester.
ACKNOWLEDGEMENTS

I would like to thank Dr. Barbara Fulton for her unfaltering confidence in me, Dr. Richard Malott for his encouragement and dedication, Dr. David Lyon for his patience and advice. I would like to give special thanks to Dr. Alan Poling for his friendship and guidance, who kept me going when things got rough. Finally, I would like to thank the entire Self-Management staff, who made this project possible.

Connie J. Wittkopp
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DEDICATION

Dedicated with love to my parents whose untiring encouragement and constant support have given me the strength to pursue my dreams.
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CHAPTER I

INTRODUCTION

Three of ten students who enter college will never attain a degree (Eckland, 1964a; Iffert, 1957; Statistical Abstracts, 1974). Attrition in higher education is a matter of great concern; administrators and other professionals have long sought effective strategies to retain students who would otherwise leave college before completing degree requirements. Student attrition has been the topic of a large number of empirical and theoretical articles, many reviewed by Pantages and Creedon (1978). These articles can generally be divided into a) those which deal with factors that correlate with attrition and b) those which attempt to keep high risk students in school.

Studies of the former sort are in a loose sense concerned with the "causes" of attrition, and have typically focused on ill-defined and mentalistic personality characteristics or motivational variables. As Pantages and Creedon (1978) note, research in this area is frequently marred by methodological errors, and has yielded generally conflicting results. For example, Rossman and Kirk (1970) categorized entering freshmen into one of four groups based on their first year grade point average and whether or not they returned for their sophomore year. The groups consisted of persisters, voluntary withdrawals, and failures. The subjects were asked as freshmen to complete three instruments: School and College Ability Tests, Omnibus
Personality Inventory and a Student Questionnaire designed to look at general ability, personality characteristics and attitudes. The authors concluded, surprisingly enough, that freshmen with high scholastic ability and interest in intellectual matters were among the first to withdraw from college.

Contrary results were reported by Hackman and Dysinger (1970). These investigators collected data on 1407 students and defined four possible categories: persisters, transfers, voluntary withdrawals, and academic dismissals. Each group was then tested for academic competence and reported college commitment. The findings suggested that the students most likely to persist (i.e., least likely to withdraw) were those with high academic achievement and moderate to high college commitment.

In a related study, Johansson and Rossman (1973) conducted a 5-year longitudinal analysis designed to identify factors related to persistence in college. These investigators looked at differences in ability and achievement between persisters and voluntary withdrawals using the Scholastic Achievement Test (SAT) and grade point average at the time of graduation or withdrawal. No significant differences were found between voluntary withdrawals and persisters on SAT scores. However, there were significant differences in mean cumulative grade point averages, with persisters scoring significantly higher.

It is hardly surprising that students with low grade point averages and poor academic records are most likely to leave college without degrees. A crucial question, however, is whether something
can be done to increase the likelihood that such students will stay in college. Although it appears that the procedures developed by behavioral psychologists could be used effectively in programs designed to reduce attrition in high risk college students, behaviorists have essentially ignored this problem area. However, a few relevant studies have appeared.

In an early investigation, Jackson and Van Zoost (1972) demonstrated that simple reinforcement procedures were effective in increasing study skills and academic performance. In this study, 47 college freshmen were randomly assigned to one of four conditions: self-administered reinforcement, external reinforcement, no reinforcement, and no treatment. Significant gains in study habits were observed only in those subjects in the two reinforcement groups; these gains persisted over a four-month follow-up period.

Systematic reinforcement, or contingency management, also formed the basis of an intervention evaluated by Bristol and Sloane (1978). These researchers studied the effects of contingency contracting on study rates (amount of time spent studying) and test performances with a group of undergraduate psychology students. Results indicated that contingency contracting significantly increased the study rates of students. However, the results did not generalize to non-contracting courses.

A more elaborate treatment package was examined by Dean, Malott and Fulton (1983), who conducted two experiments in an introductory psychology course to determine if the implementation of self-management techniques, including use of self-recording and self-monitoring (which
involved recording daily activities that they were engaged in) increased student's quiz scores. The authors concluded that the self-management package was effective in improving performance.

Beneficial effects of an elaborate system of personalized instruction based upon Skinnerian principles also were demonstrated by Pennypacker, Heckler, and Pennypacker (1978). In this study, a learning center available to all students at the University of Florida, and attended by over 1,000 students, was staffed by approximately 150 individuals trained to evaluate and consequeate academic performance. According to the authors, "In the first two years of the center's existence, the drop-out rate for that important segment of our student clientele whose problems occasioned our initial ventures was reduced from 40% to less than 6%." (p. 598). Despite this, the program apparently is no longer extant.

The studies reviewed to this point have convincingly demonstrated that behavior change procedures based upon the principles of operant conditioning can be used to improve academic performance. They have not, however, shown that such procedures are useful in keeping high-risk students in college.

In the present study, students whose academic performance placed them at significant risk for dismissal from a university were exposed to a treatment package designed to improve their study techniques and hence their overall academic performance. This treatment package combined a number of behavior change techniques previously demonstrated to be effective in increasing appropriate behavior in other contexts, and reported by Yancey (1983) to be of value in improving the academic
performance of high-risk students. Since the goal of the present study was practical - to develop a program that would help keep high-risk students in school - the individual components of the package were not evaluated separately (cf. Azrin, 1978).
CHAPTER II

METHOD

Subjects

Thirty-four undergraduate students enrolled at Western Michigan University served as the subjects. An academic advisor from the College of Arts and Sciences referred the subjects to the Center for the Self-Management of Academic Performance where they were required to enroll in a course entitled "Self-Management". At the onset of the study the subjects were on Academic Review, which occurs at Western Michigan University when a student's cumulative grade point average falls below 2.0 (on a 4.0 scale where A = 4, B = 3, C = 2, D = 1 and E = 0.)

Two sections of the course were offered. One met on Monday and Wednesday, the other on Tuesday and Thursday. Students in the Monday/Wednesday section served as the control group, which consisted of 13 students. Students in the Tuesday/Thursday section served as the experimental group, which consisted of 21 students.

The experimental group involved 12 males and 9 females; their mean age (at the beginning of the study) was 21.2 years (range 18.1 - 32.1 years). The control group involved 9 males and 4 females; their mean age was 21.1 years (range 19.3 - 24.2 years). At the time the study began, the mean cumulative grade point average of the experimental group was 1.65, and the mean grade point average of the control group was 1.63.
The staff involved in the Center for the Self-Management of Academic Performance consisted of one professor and 11 students, 6 females and 5 males, ranging in age from 19 - 24 years. The staff consisted of a Program Director, Contracting Supervisor, Feedback Analyst, Educational Programmer, Program Evaluator and Contractors. The Center was open Monday - Friday from 8:00 a.m. - 5:00 p.m. Each staff person spent approximately 4 - 8 hours a week at the Center. Appendix A provides job descriptions for each of these positions.

Procedure

The instructors, which were both graduate students in the Psychology Department at Western Michigan University, divided the semester into even and odd weeks, with two class sessions scheduled for each week. The experimental group attended all sessions while the control group attended only those sessions that occurred on even weeks. A description of activities follows.

Even weeks

During even weeks, in which members of both the experimental and control groups attended sessions, the instructors gave lectures. The lectures were designed to enhance learning in the form of study skills. The instructors followed each lecture with a worksheet. Both groups were required to complete the worksheets, but only the experimental group received points upon completion of a worksheet. A brief description of each worksheet follows. (See Appendix B for the actual worksheet.)
A. **Course Load Survey.** This was a brief description of each course in which the student was currently enrolled. The purpose of this survey was to determine the course the students were taking, number of credits associated with each course, and the status of each course (i.e., whether the course was being taken for the first time, whether the course was required).

B. **Hourly Schedule Record.** This worksheet was a 3 x 5 matrix with time blocks from 7 a.m. to 9 p.m. The instructors required the students to fill out the "main activity" during those times. The purpose of this worksheet was to help the student determine his or her most productive hours in a day.

C. **Long-Term Planning.** The student was required to report the dates of his or her midterms, finals, and any projects that were due during the semester. This worksheet was designed to enable the students to plan ahead for their current courses.

D. **Operational Definition.** This worksheet was designed to teach students how to distinguish whether or not a particular behavior was emitted (i.e., to define behavior in observable and measurable terms). For example, the instructors taught the students how to define "studying" in such a way that the student could distinguish an instance from a non-instance.

E. **Task Analysis.** This worksheet was intended to teach students to break a large task down into weekly or daily goals. The student would calculate this by taking the number of days between the current date and the due date and dividing the total number of assignments by the number of days remaining until the completed assignment was due.
F. **Knowledge Mapping.** The instructors designed this worksheet to teach a student how to organize information in such a way that it would enable him or her to predict test questions.

G. **Short-Term/Long-Term Paradox.** This worksheet was designed to teach students the importance of short-term vs. long-term consequences of their studying.

H. **Graph.** The instructors required the students in the experimental group to keep a graph recording daily study accomplishments for each class in which they were enrolled. The students recorded the day along the Y axis and the task (i.e., number of pages read) along the X axis. During the weekly contracting session the contractor checked the graphs and awarded points contingent upon the graph being updated.

In addition to the foregoing, daily phone calls and group discussions were arranged for the experimental group as described below.

**Daily phone calling.** Contractors required daily phone calls (Monday - Friday) from their contractees stating what was accomplished the previous day and what was going to be accomplished that day. The contractor kept a phone log of his or her contractees' daily study behavior and awarded points contingent upon the daily phone call.

**Group discussion.** The instructors gave the students an opportunity to give constructive feedback on any aspect of the course. Also, the instructors encouraged students to discuss any problems they might have encountered and to suggest possible solutions.

**Odd weeks**

**Study center.** Part of the course requirement for the experimental
group consisted of spending two hours at the study center. Upon entering the center, the students had to sign in and state what they planned to accomplish (in the form of a permanent product). Upon leaving the study center, a staff person would review his or her permanent product, and award points contingent upon the permanent product.

**Behavioral contracting.** Behavioral contracting can be defined as a written agreement between two people in which tasks, accomplishments, and consequences are stated. At the beginning of the course, the instructors assigned each member of the experimental group to a staff person (contractor). The role of the contractor consisted of meeting with their students individually on a weekly basis to go over accomplishments for the previous week. Each session lasted approximately 30 minutes. The contract included five critical features:

1) Course and number for each course were listed.

2) Task and criterion stating exactly what the student would accomplish for the week stated.

3) Permanent products (an observable measure of the task and criterion) were specified.

4) Due date specified for the permanent products.

5) Points contingent upon the specified permanent product were defined.

During the session the contractor would check the permanent products, administer the right number of points, and write a new contract for the following week. Each contract included at least one task from each class in which the student was currently enrolled.
CHAPTER III

RESULTS

Since whether or not a student was placed on academic review was determined by his or her grade point average, grade point was the most significant dependent variable. The mean cumulative grade point average for the experimental group before the study began was 1.64; for the control group, 1.62. Comparisons of these values via the T test (Hopkins & Glass, 1977) indicated that the difference in means was not significant at the .05 level (T = 0.21, df = 32, p > .05). The mean grade point average of each group for the full (i.e., Fall or Winter) semester prior to the onset of the study was 1.64 for the experimental group, and 1.56 for the control group; these means were also not significantly different at the .05 level (T = 0.33, df = 32, p > .05).

The mean grade point average for each group during the semester of participation in the study, not including the grade received in Self-Management, was 2.39 for the experimental group and 2.12 for the control group. These values were not significantly different at the .05 level (T = 0.90, df = 32, p > .05). However, correlated T tests indicated the mean grade point average of both the experimental group (T = 4.74, df = 19, p < .01) and the control group (T = 2.26, df = 11, p < .05) was significantly higher during the semester in which the study was conducted than during the preceding full semester.

Every member of the experimental and control groups had been
dismissed from the University at least once prior to the beginning of the investigation. Eight of the 21 members of the experimental group (38%) and 4 of the 13 members of the control group (31%) were dismissed at the end of the semester in which the study was conducted.

Figure 1 shows the relation between the grade earned in the Self-Management course and mean GPA (grade point average excluding Self-Management) for the semester in which that course was taken. In general, these measures were highly related for subjects in the experimental group. Further, of the 16 members of the experimental group who earned a B (3.0) or above in Self-Management, only two earned a semester GPA below 2.0. Overall, five members of the experimental group (24%) earned a semester GPA below 2.0. Five members of the control group (33%) earned a semester GPA below 2.0. Grades in Self-Management and semester GPA were positively related in this group although the relation appeared weaker than that evident in the experimental group.
FIGURE 1
Relation Between Grade Earned in Self-Management and Mean GPA (Excluding Self-Management)
CHAPTER IV

DISCUSSION

The present study was an evaluation of a treatment package designed to improve the study time of students whose academic performance placed them at significant risk for dismissal from a university. Students exposed to this package did not earn significantly higher grade point averages than members of a control group who only attended lectures. However, the mean grade point average of both groups was significantly higher during the semester in which the study was conducted than during the preceding full semester. Insofar as the practical goal of treatment was to increase grade point averages, the treatment was successful, as was the lecture-only control procedure. The finding that the cumulative GPA of both the control and experimental groups increased in the present study is consistent with results of an earlier investigation by Yancey (1983), as is the present finding that the cumulative GPA of the experimental group increased significantly during the semester in which treatment was arranged.

Although many studies have looked at factors related to student attrition (see Pantages & Creedon, 1978), few of those studies have attempted to directly improve students' performance and hence, reduce attrition. The present study implemented a behavioral system designed around the assumption that attrition as an environmental problem - specifically a problem of time management - would be an effective method for decreasing student attrition. Why the program was not more
effective than a minimal, lecture-only treatment is unclear. However, a number of potential problems were observed in implementing the treatment package. These include the following:

1) Clients were overloaded by forms. The present study involved many forms that the students were required to fill out. The problems identified with the forms were: a) complaints about filling one out without understanding the utility, and b) some of the information obtained from the various forms was not utilized and therefore unnecessary for meeting the system's goals.

In view of these problems, it appears that specific forms should be changed as follows:

A. **Course Load Survey.** It was found that information from this form was rewritten in the performance log, which is a form used by the staff. Therefore, this should be eliminated.

B. **Hourly Schedule Record.** The student was required to complete ten of these forms within the first two weeks of the semester. Upon completion of the ten forms, the staff summarized and analyzed data collected. These data quantified students' daily activities (i.e., work, study, leisure time, etc.) and were used to evaluate the time schedules of students when necessary, to determine when they could attend study center, and to allow contractors to contact their students when needed. The requirement of filling out the ten forms is unnecessary and the task could be simplified by requiring just one form which summarizes the weekly schedule of the student.

C. **Long-Term Planning.** Information provided on this form appears useful. However, the information could also be collected through the
use of the performance log.

D. **Operational Definition.** This form alone did not help students distinguish between accomplishments and behaviors; this discrimination could be taught more readily through contracting meetings. When staff and client complete contracting forms, the staff awards points contingent upon permanent products, those points make up the final grade in the course. This contingency should be strong enough for students to discriminate between accomplishments and behaviors.

E. **Task Analysis.** This form seemed to be effective in estimating the time a student had to complete a specific assignment. However, it did not seem effective in motivating the student to work on a daily basis. This form could be used in conjunction with the graph in which the students would be required to draw a task analysis line on the graph and in this way have a daily goal.

F. **Knowledge Mapping.** This form did not provide the adequate structure the student needed to learn the theory behind knowledge mapping - that of organization. Therefore, this form should be eliminated.

G. **Short-Term/Long-Term Paradox.** This form appeared to be effective in teaching students the importance of short-term goals and long-term planning, but was ineffective in motivating students to actually plan their activities in any systematic productive order. Therefore, the form should be eliminated and students should be taught theoretical implications and usefulness of such procedures in the contracting meetings.

H. **Graph.** Staff and students found that this form and procedure
were useful in the management of study time. By viewing their own individual graphs, the students were better able to notice trends or deficiencies and to decide what procedures may be needed to improve or maintain study behavior.

In view of the foregoing, it appears that 50% of the forms used in the present study were of little or no value and should be eliminated. The potential benefits of so doing would save considerable time, money, and energy for the Center and its members. The cost effectiveness of this procedure would reduce money spent on reproducing forms. Time and energy could be saved by reducing staff, the time spent by supervisors and students in producing, administering and completing these forms. It would also allow the staff to spend more of their time following the progress of students in other courses, which is, after all, the main goal of the Center.

2) Quality control within the study center. In the present study, students in the experimental group were required to spend two hours in the study center on odd weeks. One of the major problems with students on academic review may be that they do not expend the necessary study time needed to pass their courses. Student performance in the study center was evaluated on the basis of production of permanent products. Each student showed a permanent product (i.e., number of problems completed, notes taken, pages highlighted, etc.) to staff upon departure from the study center. The staff person simply viewed the permanent product and signed his/her initials and time out to verify completion. There were no quality control measures of behavior or accomplishments within the study center. The apparent
problem might be dealt with in several ways. First of all, the students should be required to spend more time in the study center—ten hours a week. During scheduled hours, one staff member would be required to monitor study behavior in the center. Monitoring would consist of intermittent checks on students' study behavior to verify that they were either on or off task. The staff person on duty would then record whether each student engaged in mainly on task or off task behavior. This record would be posted for each student to check. Students would not be given points for study center attendance if they engaged in more off task than on task behavior during the interval checks. This would be calculated by taking three checks on each student per hour. The final check would involve the large percentage of behaviors observed as the behavior recorded. The staff person would also examine permanent products by use of a quality control checklist, which could easily be devised, as in the example provided in Appendix C. Permanent products would be required to meet specification for students to receive credit for study center activities. Ten points would be available contingent on the type of permanent product specified (notes, pages read or problems completed); pages highlighted would be eliminated as an appropriate product since students could quickly outline pages without reading and obtaining knowledge. Since it is widely recognized that contingency contracting can be used to modify a wide range of behavior (see Birdwell, 1972; George, 1973; Williams & Anandam, 1973), it appears that careful attention to this component of the program may be of value in increasing its future effectiveness.
## APPENDIX A

### JOB MODELS

<table>
<thead>
<tr>
<th>Job</th>
<th>Accomplishment</th>
<th>Measures</th>
<th>Standards</th>
<th>Relevant Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Programming</td>
<td>Met with Supervisor</td>
<td>1. Average # of times attended</td>
<td>1. Must attend 100% of scheduled meetings</td>
<td>1. Rate</td>
</tr>
<tr>
<td></td>
<td>Office Hours Attended</td>
<td>1. Average # of times attended</td>
<td>1. Must attend 100% of scheduled office hours</td>
<td>1. Rate</td>
</tr>
<tr>
<td></td>
<td>Non-recurring Tasks Completed</td>
<td>1. Task assigned is task completed</td>
<td>1. Task assigned must be completed 100% of the time by next meeting</td>
<td>1. Accuracy</td>
</tr>
<tr>
<td></td>
<td>Worksheets Graded</td>
<td>1. Forms checked</td>
<td>1. All items on forms checked for accuracy</td>
<td>2. Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Points assigned</td>
<td>3. Points subtracted from total possible</td>
<td></td>
</tr>
<tr>
<td>Study Center Forms Checked and Recorded</td>
<td>1. Forms gathered</td>
<td>1. All forms gathered</td>
<td>1. Accuracy</td>
<td>2. Volume</td>
</tr>
<tr>
<td></td>
<td>2. Time checked</td>
<td>2. Give students total points possible if they stayed for duration</td>
<td></td>
<td>2. Volume</td>
</tr>
<tr>
<td></td>
<td>3. Points assigned</td>
<td>3. Place point total at top of form</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### JOB MODELS

<table>
<thead>
<tr>
<th>Job</th>
<th>Accomplishment</th>
<th>Measures</th>
<th>Standards</th>
<th>Relevant Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Evaluator</td>
<td>Met with Supervisor</td>
<td>1. Average # of times attended</td>
<td>1. Must attend 100% of the scheduled meetings</td>
<td>1. Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Average # of times stayed for duration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Hours Attended</td>
<td></td>
<td>1. Average # of times attended</td>
<td>1. Must attend 100% of scheduled office hours</td>
<td>1. Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Average # of times stayed for duration</td>
<td>2. Must stay for duration</td>
<td></td>
</tr>
<tr>
<td>Non-recurring Tasks Completed</td>
<td></td>
<td>1. Task assigned is task accomplished</td>
<td>1. Task assigned must be completed 100% of the time</td>
<td>1. Accuracy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. Management</td>
</tr>
<tr>
<td>Terminal Data Gathered</td>
<td></td>
<td>1. Students' names obtained</td>
<td>1. All terminal data collected on each student</td>
<td>1. Volume</td>
</tr>
<tr>
<td>Descriptive Statistics Computed</td>
<td></td>
<td>1. Relevant measures selected</td>
<td>1. Program Director &amp; Program Evaluator select relevant measures</td>
<td>1. Accuracy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Statistics computed</td>
<td>2. Statistics computed on all relevant measures</td>
<td>2. Volume</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. Class</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4. Management</td>
</tr>
<tr>
<td>Data Presented at Assistant's</td>
<td></td>
<td>1. Appropriate data presented</td>
<td>1. Program Director &amp; Program Evaluator agree at weekly meeting what data will be presented</td>
<td>1. Accuracy</td>
</tr>
<tr>
<td></td>
<td>Meeting</td>
<td>2. Data outlined such such that it is understood</td>
<td></td>
<td>2. Class</td>
</tr>
<tr>
<td>Job</td>
<td>Accomplishment</td>
<td>Measures</td>
<td>Standards</td>
<td>Relevant Requirements</td>
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<tr>
<td>-------------------------</td>
<td>----------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Feedback Coordinator</td>
<td>Met with Supervisor</td>
<td>1. Average # of times times attended</td>
<td>1. Must attend 100% of the scheduled meetings</td>
<td>1. Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Average # of times stayed for duration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Hours Attended</td>
<td></td>
<td>1. Average # of times times attended</td>
<td>1. Must attend 100% of scheduled office hours</td>
<td>1. Rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Average # of times stayed for duration</td>
<td>2. Must stay for duration</td>
<td></td>
</tr>
<tr>
<td>Non-recurring Tasks</td>
<td>1. Task assigned is task accomplished</td>
<td>1. Task assigned must be completed 100% of the time</td>
<td>1. Accuracy</td>
<td></td>
</tr>
<tr>
<td>Completed</td>
<td>2. Task completed by next meeting</td>
<td>2. Must be completed 100% by next meeting</td>
<td>2. Rate</td>
<td></td>
</tr>
<tr>
<td>Staff Performance</td>
<td></td>
<td></td>
<td>3. Management</td>
<td></td>
</tr>
<tr>
<td>Data Collected</td>
<td>1. Program Director &amp; Contracting Supervisor</td>
<td>1. Program Director &amp; Contracting Supervisor</td>
<td>1. Timeliness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>contacted</td>
<td>contacted by Friday of each week</td>
<td>2. Accuracy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. All forms checked for accuracy by Friday of each week</td>
<td>3. Class</td>
<td></td>
</tr>
<tr>
<td>Staff Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Recorded and</td>
<td>1. Scores recorded on on hall board</td>
<td>1. All staff scores must be recorded and</td>
<td>1. Accuracy</td>
<td></td>
</tr>
<tr>
<td>Posted</td>
<td>2. Scores recorded &amp; posted neatly</td>
<td>posted by Friday of each week</td>
<td>2. Timeliness</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Class</td>
<td></td>
</tr>
</tbody>
</table>
## JOB MODELS

<table>
<thead>
<tr>
<th>Job</th>
<th>Accomplishment</th>
<th>Measures</th>
<th>Standards</th>
<th>Relevant Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractors</td>
<td>Met with students</td>
<td>1. Contracted weekly with each student</td>
<td>1. Met with each student 100% of the time</td>
<td>1. Rate</td>
</tr>
<tr>
<td>Contracting Form Completed</td>
<td></td>
<td>1. Each class listed</td>
<td>1. All items completed on form 100% of the time</td>
<td>1. Accuracy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Task specified</td>
<td></td>
<td>2. Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Due date specified</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Points assigned to each task</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Attendance data recorded</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Data recorded</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. Graph points assigned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relevant Academic Topics Discussed</td>
<td>1. Grade in 397 discussed</td>
<td>1. Topics discussed when student performance declines</td>
<td></td>
<td>1. Timeliness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Attendance discussed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Worksheet completion rate discussed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students Contacted When Absent</td>
<td>1. All students contacted within 24 hours after missing contracting session</td>
<td></td>
<td>1. Students contacted 100% of the time</td>
<td>1. Timeliness</td>
</tr>
</tbody>
</table>
APPENDIX B

WORKSHEETS

Courseload

Psychology 397

Fill out one form for EACH course in which you are currently enrolled.

Name ____________________________

Date ____________________________

Name of Course:

Department:

Course #:

Number of Credits:

First time enrolled ____ Repeating course ____ Making-up incomplete ____

Previous courses completed in this same area

<table>
<thead>
<tr>
<th>Course</th>
<th>Where taken</th>
</tr>
</thead>
</table>

This course is: Required ____ Recommended ____ General Ed. ____

It will count for: Major: ____ Minor: ____ Neither: ____

Professor’s Name ____________________________

Location of course ____________________________

Time of course: Days: Hours: 
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Hourly Schedule Record

Name ____________________________________________

Below is a schedule of the hours in the day. In each box, you should put a word or phrase that describes the main activity in which you were engaged during that hour.

Be as specific as possible, but brief. For example, rather than "studying" say "reading" or "math problems" (more specific).

Report EACH hour throughout the day. Some hours may be nothing but sleeping, watching TV, or whatever.

Remember, just the main activity. Be brief and specific.

<table>
<thead>
<tr>
<th>7 A.M.</th>
<th>8 A.M.</th>
<th>9 A.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 A.M.</td>
<td>11 A.M.</td>
<td>12 NOON</td>
</tr>
<tr>
<td>1 P.M.</td>
<td>2 P.M.</td>
<td>3 P.M.</td>
</tr>
<tr>
<td>4 P.M.</td>
<td>5 P.M.</td>
<td>6 P.M.</td>
</tr>
<tr>
<td>7 P.M.</td>
<td>8 P.M.</td>
<td>9 P.M.</td>
</tr>
</tbody>
</table>
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**Long-term Planning**

Please fill this form out and bring it back to your contractor. Due Date:

Class ________________ Day _ Time _ Instructor & Phone Number

Midterm

Final

Projects (e.g., term paper, journal, reading, etc.)

Extra Credit (e.g., anything else like extra reading, papers, etc.)

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Operational Definition

1. Dusting the Furniture - defined as rubbing a rag over the entire surface of all those pieces of wooden furniture: bed, dresser, desk, table, stereo, and chair.

   Rules:  
   1) Is it measureable?  Yes  No  
   2) Is it observable?  Yes  No  
   3) Can you easily discriminate between an instance and non-instance?  Yes  No

2. Dusting the Furniture - defined as rubbing a rag over the entire surface of all those pieces of furniture: bed, dresser, desk, table, stereo, and chair. This will be done in such a manner that there is no visible dirt or dust on any of the above mentioned furniture when checked for correctness within ⅛ hour of completion of the task. The person measuring the correctness of the task will wear a white glove and wipe at least 3 of the 6 pieces of furniture. If no dust or dirt is visible on the glove, then the task has been completed correctly.

   Rules:  
   1) Is it measureable?  Yes  No  
   2) Is it observable?  Yes  No  
   3) Can you easily discriminate between an instance and non-instance?  Yes  No
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Task Analysis Worksheet

Name ___________________________ Section ___________________________

Writing Task: __________________________________________

Due Date: ______________ Today's Date: ______________

Course for which writing task was assigned: ______________

# of pages long (planned): ______________

# of references planned: ______________

Is an outline required? ______________

Topic you plan for paper: ___________________________________________

Task List

Below, list as many separate tasks as you can think of, which are needed in order to actually write your paper. These will be things like getting materials from the library, making reading notes, etc. After you have a fairly complete list, look it over, decide which things must be done before others can be completed. Then copy items from the list into the right-hand column IN THE ORDER IN WHICH YOU PLAN TO COMPLETE THEM. Thus, the left-hand list is a rough list in the order you think of these items; the right-hand column is the same list in CHRONOLOGICAL ORDER.

Tasks:

______________________________

______________________________

______________________________

______________________________

______________________________

______________________________

______________________________

______________________________

Tasks in Chronological Order:

______________________________

______________________________

______________________________

______________________________

______________________________

______________________________

______________________________

______________________________

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**Knowledge Map**

Name: 

Course: 

Date: 

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Short-term/long-term Paradox Worksheet

<table>
<thead>
<tr>
<th>Activity of Behavior</th>
<th>Immediate Result</th>
<th>Long-Term Outcome</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Alternative Activity of Behavior</th>
<th>Immediate Result</th>
<th>Long-Term Outcome</th>
</tr>
</thead>
</table>

1. In the example you chose above, which behavior would be more likely to occur?

2. What could you change in the middle column to make it more likely that the OTHER behavior would occur?

3. Which types of outcomes are most influential - immediate or long-range?
APPENDIX C

QUALITY CONTROL CHECKLIST

Permanent Product Checklist:

Specification:

1. Number of problems completed
   a. Are all required problems attempted?
   b. Are all required problems completed?
   c. Did student generate original questions?
   d. How does number of pages read compared to number of hours spent in Study Center?

2. Number of pages read
   a. Are pages underlined or highlighted?
   b. Did student take notes while reading?
   c. Did student generate original questions?
   d. How does number of pages read compared to number of hours spent in Study Center?

3. Notes
   a. Do notes pertain to specified material?
   b. Did student generate at least three questions and answers from material?
   c. If notes involve definitions, can student recite if picked at random?
   d. Can student generalize in simple statement what is said in notes?
   e. How does volume of notes compare to time spent in Study Center?

NOTE: Each permanent product specification is worth ten points – student must receive 7 - 10 points to receive credit for Study Center hour time.


Malott, R. W. (1982). *Skinner on issues relevant to rule-governed behavior.* Unpublished manuscript, Western Michigan University, Psychology Department, Kalamazoo, MI.


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