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Behavioral self-management in organizational settings

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BEHAVIORAL SELF-MANAGEMENT IN ORGANIZATIONAL SETTINGS

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Acknowledgements/Dedication

To my committee members:

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To my father and mother:

Thank you for the direction towards higher education and for the confidence that you've always had in me. When I was unclear about where I was heading you seemed confident that it was in the right general direction.

To my real "educators":

At this stage of my career I look back at three families who taught, coached, fed, and directed me. To Cecil and Pat Wilkinson, Ed and Rowena Taylor, Leandor and Evelyn Raae-Nielsen ...to you I DEDICATE this masters thesis.

ABSTRACT

The intent of this study was to examine the effectiveness of behavioral self-management for mid-level managers in a variety of organizational settings. Behavioral self-management combines some of the current techniques found in behavioral psychology and management research. The present approach uses behavioral self-control and certain aspects of time management in a four-term contingency analysis (SOBC) to systematically control work-related problems that result in less than optimal performance. Eight individuals who occupied middle-management positions participated in the study. The behavioral self-management approach was used to successfully manage a total of about 20 out of 23 target behaviors associated with on-the-job performance. Each manager selected, modified, and evaluated each of their chosen problem events. Seven participants worked on three target behaviors each and one participant worked on two. Results were highly favorable, indicating that the approach can be successfully used by middle-managers in various settings to increase the effectiveness of their own performance. It was concluded that the possibility of success with several types of work-related problems is high, provided the manager is committed to following the

program and that the problems have been adequately identified. An exit interview revealed that seven of the eight managers were convinced of the program's effectiveness and usefulness in managing the target behaviors. Ratings of each manager's graphed results were made by nine individuals who were knowledgeable in the techniques of behavior analysis. Their ratings, which were very similar to the exit interview results, suggest a medium to considerable amount of behavior change on almost all target behaviors.

Behavioral Self-Management in Organizational Settings

Applied behavior analysis techniques (Gambril, 1977; Hampton, 1978) and learning theory (Skinner, 1953), recently have been applied to business and industrial organizational settings. The result is an emerging field of theoretical application entitled organizational behavior modification (Luthans & Kreitner, 1973; Miller, 1978). Within this emerging field, a current approach focused on those in managerial positions is entitled behavioral self-management (Luthans & Davis, 1979). This approach assumes that managers who have control over their personal, daily, work-related affairs such as business phone calls, paper work, and time spent on high priority items, will more effectively manage the more global organizational affairs such as employee productivity, strategic planning, and organizational development. Luthans and Davis' formal definition of behavioral self-management states that it "...is the manager's deliberate regulation of stimulus cues, covert processes, and response consequences to achieve personally identified behavioral outcomes" (1979, p. 43).

The component parts of behavioral self-management are as follows: "Management" refers to controlling or utilizing resource variables of some type (e.g., time, talent, ability, equipment, money, etc.). The term "self-management" entails manipulating resource variables with the direct influence being felt primarily by the manipulator. Adding the term

"behavioral" implies that observable behaviors receive the bulk of the attention, and that the entire approach relies heavily upon operant learning and social learning principles.

A distinguishing factor in behavioral self-management is the use of a four-term contingency analysis. Skinner's original functional analysis (i.e., antecedents, behaviors, consequences, A-B-C) is altered to include organismic, mediating variables. Luthans and Davis (1979) have chosen to diagram behavioral events by using an S-O-B-C sequence. These symbols refer to stimulus (Skinner's "antecedents"), organism, behavior, and consequence, respectively. In this four-term contingency analysis, stimulus management is aimed at adding, subtracting, or modifying stimuli in order to control predetermined target behavior(s). Consequence management is the self-controlled introduction or removal of positive or negative events contingent on whether or not the behavior occurs.

Much of the techniques by which to achieve the objective of managerial behavioral self-management were developed in the general study of behavioral self-control. The unifying premise of the behavioral self-control literature (Kanfer, 1970; Mahoney & Thoresen, 1974; Thoresen & Mahoney, 1974; Watson & Tharp, 1977; Williams & Long, 1979) is that self-management or self-control is achieved by the self-manipulation of the environment to produce increases or

decreases in the person's behavior, or to successfully manage the time and place of the occurrence of a behavior. The behavioral self-control techniques can be used in varied settings. In the organizational setting, the behavioral self-management approach entails structuring the occurrence of stimulus events and response consequences so that barriers to efficient management will no longer result in less efficient on-the-job performance.

As in much of the self-control research (Goldiamond, 1975; Thoresen & Mahoney, 1974; Watson & Tharp, 1977), behavioral self-management also places heavy emphasis on organismic, or mediating variables. Both behavioral self-control and behavioral self-management approaches employ covert strategies and attribute additional effectiveness of the techniques to the participant being aware of the particular contingencies involved in each treatment situation. For the purposes of this study "organismic" variables included mediating, cognitive, or covert activities. Examples would be thinking about past events or future consequences, sub-vocal cuing, self-prompting, repeating a phrase to oneself, inaudibly saying "great job," silent self-evaluations, and so forth.

Staw (1977) emphasizes that methods are needed that directly benefit the manager which should in turn have a positive impact on the organization as a whole. In various articles on managerial behavior, considerable attention is given to the relationship of middle-managers to their respective

organizations (Baker & Wilemon, 1977; Hampton, 1978; Luthans & Davis, 1979). Middle-managers are good targets for specifically tailored self-control techniques because of their position in regards to the line of command and communication, their influence involving the accuracy of information they must relay, and their responsibilities concerning employee performance and organizational productivity.

According to Luthans and Davis (1979) the stated prerequisites for using the complete behavioral self-management approach include:

1. "The individual manager is the proactive agent of change." This implies that the manager must be in a position to initiate change and then can maintain and evaluate it.

2. "Relevant stimulus cues, cognitive processes, and response consequences must be brought under control by the manager." In other words, the manager must have access to, and a reasonable amount of control over, cues and prompts that have a definite relation to the target behavior to be managed as well as the related thought processes and consequences that result from the target behavior.

3. "The manager must be consciously aware of how a personally identified target outcome is being achieved." In order to satisfy this final requirement the manager should thoroughly understand that one's behavior is, to a large degree, dependent upon events that occur around

the person. A manager using this behavioral self-management approach should understand that stimulus cues set the stage for behavior and respond consequences influence whether or not the behavior is repeated. (These expanded definitions are based on the discussion of Luthans and Davis, 1979, p. 43.)

Luthans and Davis (1979) reported the results of the behavioral self-management approach with a retail store assistant sales manager and a newspaper advertising manager. Two different research designs were used to measure the effectiveness of the technique. A reversal design demonstrated that the behavioral self-management technique helped reduce the female sales manager's dependency on her supervisor (frequency of asking questions). The reversal design (ABAB) began by taking baseline data and then introducing the treatment. The treatment was then removed and later reinstated after the sales manager's behavior had been allowed to return to the previous baseline level. The second design was a multiple baseline design where the treatment was sequentially introduced across three different behaviors (i.e., unnecessary paper handling, time out of the office without notifying a secretary, and completing expense forms). The behavioral self-management was effective in improving all three of the advertising manager's behaviors. The purpose of

the present study was to assess the effectiveness of behavioral self-management in a variety of settings with several middle-managers. Luthans and Davis' (1979) multiple baseline design used with the advertising manager was replicated with a variety of target behaviors for eight managers.

METHOD

Participants

The participants in the study were eight individuals in Stockton, California who occupied middle-management positions. All were in positions that required accomodation to superiors and supervision of subordinates. Most managers dealt with from 2 to 5 superiors and from 5 to 12 immediate subordinates. The organizations were chosen as representative of a wide range of organizations including profit and non-profit making. The specific organizations were a private university (three managers), an agribusiness production company (three managers), a property management company (one manager), and a new-home sales company (one manager).

Those participating included one female and seven males. The presumed incentives for voluntary participation were the expectation of improved effectiveness and the free management consultation.

Procedure

Initial contact. The initial contact with the parti-

cipant-managers was made following referrals from individuals who were familiar with the proposed research topic. The prospective participants were each given a brief summary of the experimenter's academic activities and current interest in organizational management. They were given a written description of why they would be appropriate, what types of problem situations would be dealt with, and the basic requirements that they would be asked to meet (Appendix A).

At this point, a contract outlining the manager's and the experimenter's agreed upon responsibilities was reviewed and signed in duplicate by those choosing to participate and by the experimenter (Appendix B). Of the nine managers that went through this portion of the procedure, eight chose to participate. All eight were given verbal assurances that there would be no deception involved in the entire program.

Target behaviors. At the next session following the signing of the contract, each manager was asked to outline three problem events of behaviors that: a) were discrete, observable events that interfered with their daily work activities, b) could be altered in a reasonable length of time (i.e., 4 to 6 weeks), and c) were deemed significant enough to merit attention. Examples of appropriate target behaviors included reducing unnecessarily long phone conversations, reducing excessive paper handling, working on priority items, giving enough positive reinforcement or criti

cism, etc. For those managers who did not have problems that would immediately satisfy all of the requirements, a list of various "office" problems was read and discussed (Appendix C). This session was concluded by scheduling weekly meetings for the manager and the experimenter to discuss the project.

After the three problem events had been chosen they were checked to see that all three were well-defined, observable, and alterable within the time constraints of the study. The next step was to explain to each manager the necessity of identifying potential causal factors, or setting events, that seemed to precede the chosen target behaviors. It was also necessary to pinpoint what consequences were most likely maintaining each of the behaviors. The need for this type of information was explained as the reason for starting to collect baseline data on all three behaviors. A verbal narrative outlined the baseline data collection, materials to be used as stimulus cues, and favorable events as response consequences (Appendix D).

If the managers had any questions or reservations at this time, they were allowed to ask questions, voice concerns, or withdraw from the study; all eight continued. Each manager was given a small binder which was divided into three sections; each section had a target behavior labeled and defined. The remaining pages were used to record the treatment process (i.e., S-O-B-C process), and number of occurrences of the target behaviors. During

the baseline phase of the program, the managers were instructed to record the number of times (or minutes) that the behavior occurred. They were not to make any changes in their daily managerial activities as a result of recording these three behaviors, aside from taking the few minutes each day to record in the book. It was made clear that they were not to delay making any decision or taking any action that, if not performed at that time, would affect their department, company, or themselves in a negative way.

Treatment. Following the determination of a stable baseline trend, each manager was given an explanation of the four-term contingency analysis. It was explained that the behavior (B) we were working on was preceeded by various stimulus cues (S) and possibly some organismic (O) activities. We also discussed the consequences (C) that followed the particular target behavior. At this point the manager chose a behavior that, if performed, would successfully eliminate the problem. This chosen activity became the B in the S-O-B-C sequence. The next step was to select cues in the manager's immediate environment that would serve as prompts for the occurrence of the behavior. The organismic (O) variable was included by having the manager describe to the experimenter any covert, internal activities that could lead to the behavior or possibly highlight some of the tangible environmental prompts. For the consequence (C) end

of the process each manager was instructed to list all the results of performing the activity. Additional reinforcing activities were added to increase the probability of performing the behavior. Participants 1, 2, and 3 were given a reinforcer survey (Williams & Long, 1979) from which to select reinforcers. The reinforcer survey was discontinued in the profit making business settings due to the managers' expressed hesitations about programming in tangible reinforcers. Several managers felt that the intrinsic rewards would be sufficient in the consequence section.

In summary, each manager received the same form of instruction for all behaviors chosen. An S-O-B-C analysis of the problem was followed by an outline of the intended solution, also in S-O-B-C terms. The S-O-B-C solution strategy was recorded in the binder following the description of the problem event. Each of these planning sessions was concluded by informing the manager that he/she was to rehearse and employ each item in the S-O-B-C process. They were reminded that it was essential to continue recording in the binder and also to chart the data from that point on. Each manager was given 8½" by 11" graph paper to chart each of the three target behaviors. As written in the contract (Appendix B) the managers were told that undergraduate students would be collecting the data periodically. If there were any problems or ambiguities, the managers were to present them to the experimenter at the weekly planning session or relay

them via the undergraduate students.

Maintenance. In order to assess the durability of the treatment effects over time a maintenance phase was started about 2 weeks after treatment commenced on the third problem event. Although the students continued to collect the data at 1-week intervals, the planning sessions with the researcher were terminated. The managers were told that the problem-solving portion of the program was at that time completed but they were to continue recording and graphing the data. Maintenance data were collected for periods ranging from approximately 2 to 6 weeks. At the end of this final phase of the program, each manager was given an informal review of the S-O-B-C process. This was to allow them not only to continue with the problem events but also to be able to successfully manage future similar situations.

Exit interview. The final portion of this study involved the administration of a questionnaire and completion of an interview of each of the managers by an undergraduate student (Appendix E). The students performing each of the final exit interviews had no involvement with the particular manager during the course of the program. In other words, if a student collected one participant's data during the study the same student would not interview that manager at the completion of the program. The purpose of the exit interview was to allow the managers to give their estimation of the program's effectiveness and at the same time give

them the opportunity to candidly critique the project itself and all involved parties.

Design

Demonstration of causality. Due to its ability to deal with more than one target behavior at a time and its demonstration of causality with regards to each individual participant's behavior, the multiple baseline design was chosen as the ideal design to expand on the Luthans and Davis (1979) findings. This study used eight multiple baseline designs across behaviors to examine the effectiveness of the behavioral self-management approach. Each of the eight managers chose three problem events, as discussed in the preceding Target Behaviors section. The treatment strategy (i.e., S-O-B-C, stimulus and consequence management) was then suquentially introduced in a time-lagged fashion across the three problem events. Control of time-related extraneous sources of variation was achieved by beginning the treatment at different times for each behavior. Each manager then selected the order of the three problem events to work on. The first behavior was treated after a stable baseline had been obtained. When the treatments were observed to have an effect (usually 3 to 10 days), treatment for the second behavior was started, and so forth.

Data presentation. Behavioral self-management has been specifically devised to blend into the organizational

framework. From this standpoint it was decided that all data involved with the present study would be presented visually. The results of the overall behavioral self-management strategy are graphically displayed in a multiple baseline format. All individual results were graphed by the managers and separately by the researcher. Visual analysis was assumed to be critical for the manager's evaluation of the results (Staw, 1977). From the participant-managers point of view, this graphical presentation, aside from being familiar to them, should be the logical extension of the daily records and charts that they were asked to keep. If the participant managers can be convinced through visual inspection that the procedure was effective, they will be more inclined to keep similar records for continued progress and maintenance.

Reliability. Where possible, estimates of reliability were taken by comparing the managers' recorded data against some type of tangible evidence. Undergraduate student observers performed most of these evidence gathering activities.[1] As many unobstrusive measures as possible were used to record physical traces, indirect evidence, and archival information that related to each manager's actual behavior (Webb,

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1. I wish to thank the following student observers for their invaluable assistance; Dave Dillwood, Joan Siering, Julie Cunningham, and Sheila McClellan.

Campbell, Schwartz, & Sechrest, 1966). Examples of such indirect measures were employee records, personnel files, memos, letters, and completed reports. The managers were given great flexibility in choosing types and context of their problem events, as a result specific behavioral contexts did not always allow for formal reliability checks. It was for this reason that the multiple baseline was replicated eight times instead of the usual one or two. It was reasoned that if favorable results could be repeatedly obtained, then reliability measures, although still important, would not be as crucial.

RESULTS

Participant One

This manager worked in one of the departments of a university library. As supervisor of this department, Participant One was responsible for coordinating the work activities of nine part-time student workers and one full-time assistant. She reported to the immediate department supervisor and to the library director.

Problem event A. The first target behavior was report writing. Participant One had an established pattern of waiting until a few days prior to a deadline before starting on a required report. Her goal was to spend at least 15 min per day working on any one of several periodic required departmental reports. The following stimulus, organism, behavior, consequence (S-O-B-C) sequence was used:

S	O	B	C
wall-chart, binder, notes on desk calendar	daily covert prompt: "got to put the time in"	15 min of report writing per day	achieving preset goal on chart, daily amount of report writing progress, purchase tangible "reward" (i.e., ice cream, record, etc.)

Three major reports (budget, inventory, work-study) were completed and observed by the experimenter during the course of the study. The average number of minutes increased from about 5 per day to about 45 min per day. Observations of report files (two times per week) by the experimenter showed that considerable progress (i.e., 3 to 10 pages) was being made. The manager also gave the names of individuals and outside offices to which the three reports had been forwarded. Although these people were not contacted, this provided additional assurance that the reports had in fact been completed and distributed. (See Figure 1.)

Problem event B. The second targeted behavior was social contacts with employees. The manager thought that increased social exchanges would result in a more relaxed and, at the same time, efficient work environment. Following the collection of baseline data, Participant One chose the five workers with whom she conversed the least. The behavioral self-management strategy was as follows:

S	O	B	C
wall-chart, binder, reminders on desk and desk calendar	internal prompting, goal in mind "talk to _____ today"	contact each of five workers every day	observed charted progress, reported gradual tension reduction

A single reliability check was made by five student observers who interviewed two employees each to ascertain the frequency of social contacts in the preceding 2 days. (See Appendix F.) Percentage agreement/disagreement reliability (i.e., agreements between interviewer and manager data divided by the total, X 100) was computed at 85% for the five target workers. Some workers had difficulty recalling which conversations were actually initiated by Participant One. This may have affected the reliability estimate.

Problem event C. The manager stated that she needed a revised employee performance evaluation procedure and associated evaluation forms. She was convinced that the then current procedure was inadequate, unfair, and incomplete. She decided to collect information and examples of various possibilities for a new system. Again, the manager's goal was set at 15 min per day of compiling information and gathering ideas from different people.

S	O	B	C
wall-chart, binder, prior evaluation system	thoughts of up-coming evaluations	15 min per day of compiling information, seeking ideas	achieving preset goal on chart, increasing number of ideas and suggestions on file, self-permission to buy professional magazines

The target behavior increased from a mean of 5 min to a post-baseline level of 30 min per day. The assessment of reliability consisted of a weekly review by the experimenter of the

growing list of plans, ideas, and suggestions, and a two-page outline of the segments of the new evaluative procedure to be put into use within 5 months. The increase in the amount of information in the evaluation file throughout the duration of the behavioral self-management program seemed consistent with the manager's self-recorded time spent on the task. (See Figure 1.)

Exit interview. During the final interview, Participant One related that all three behaviors were successfully managed and that she planed to continue using the strategies employed in the program. The manager stated that the behaviors were highly important but that the reinforcers would have been more effective had they been completely job-related. She was certain that there were other managers in the department who would benefit from a similar program. She was however, uncertain as to an estimated dollar amount that the department would be willing to pay for similar professional consultation.

Along with the exit interview, Participant One voluntarily submitted an eight-page summary of the results of the program, which expressed very positive reactions to the entire endeavor. She also outlined plans not only to continue the social contacts (B) but also to expand them to include her peers and supervisors. The manager's final conclusions were that the behavioral self-management technique had greatly increased her managerial effectiveness and confidence in her own ability to modify undesireable behavior patterns.

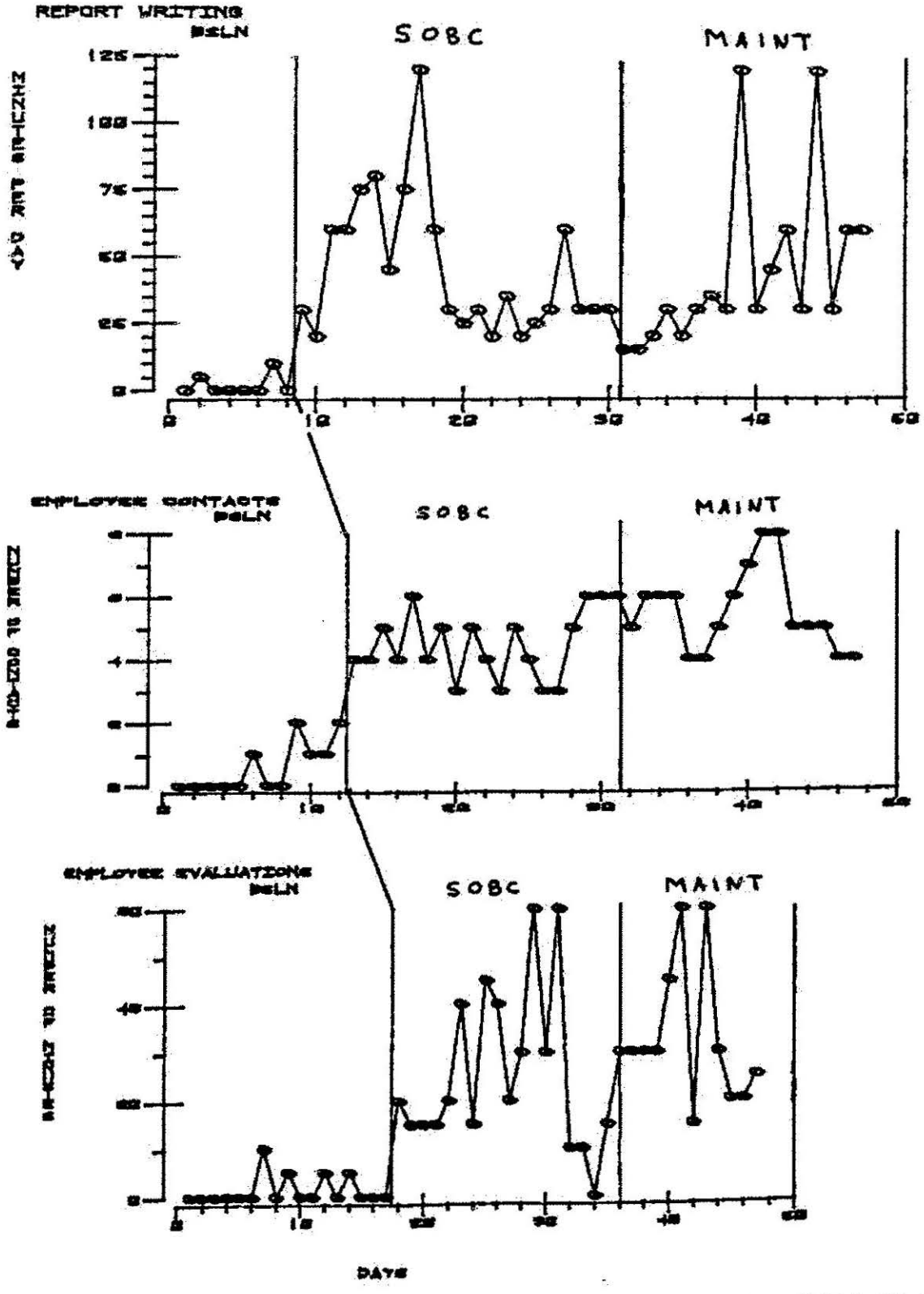

Figure 1: Data for each of three target behaviors for Participant One (circulation manager). BSLN=baseline; SOBC=treatment; MAINT=maintenance

Participant Two

Participant Two was the director of a university library. This manager directed the activities of 12 full and 7 part-time employees. Participant Two's schedule was interrupted at times and resulted in various irregularities in data recording. For example, problem event A has a partially estimated baseline for approximately a 10-day period. Additional recording difficulties were encountered due to his periodic, lengthy conferences with the university administrators. (See Figure 2.)

Problem event A. The first behavior to be worked on was listing daily priorities and completing them. The manager felt that his daily activities were not being completed in the most efficient manner. His efforts were then aimed at increasing the number of completed, prioritized items each day. We did not count days where he was out of his office for more than half of the day.

S	O	B	C
wall-chart, binder, daily priority sheets	must complete high priority items	fills out sheet, completes items in priority sequence	achieving progress on chart, organized day, record of tasks, tangible "reward" (i.e., coffee, small purchase)

The manager filled out each priority sheet at the beginning of each day. As the prioritized items were completed he checked the item off and recorded the daily total on the chart.

The number of listed and completed priority items increased from virtually zero to an average of about 5 items per day. The percentage of correspondence between the daily check-off sheets and the wall-chart was 100%. Although the number of listed and completed priority items began to gradually decline the percentage of the listed items that were completed each day was between 80% and 100% throughout the post-intervention phase.

Problem event B. The next behavior in the program involved contacts with employees. Participant Two wished to increase the number of his daily social contacts with his subordinates. The target behavior was increasing the number of daily social contacts that the manager initiated. The following sequence was used:

S	O	B	C
chart, binder, reminder card on desk	"must make those contacts"	manager initiates social contacts	achieving progress on chart, perceived reduced anxiety in social contacts

The number of contacts increased from a baseline mean of .5 to a treatment mean of 4 contacts per day. Student observers interviewed five of the 10 targeted subordinates and asked several questions concerning the types and number of contacts with Participant Two. (See Appendix G.) Of the 6 days sampled, the individual discrepancies ranged from zero to two per subordinate. The overall correspondence between interviewer and manager data was 85%.

The treatment and follow-up data indicate an increase from a mean of .5 baseline contacts to 3.5 social contacts per day.

Problem event C. The final behavior was that of unnecessary paper handling. This manager handled from 4 to 20 pieces of material (i.e., mail and memos) each day that he considered to be unnecessary. Figure 2 shows a partially estimated baseline in which several days' data were conservatively estimated at 10 pieces per day. The behavioral self-management procedure included using a three-tier filing system divided into a) important correspondence, b) routine items, and c) junk mail. This allowed for most incoming items to be filed immediately by the manager or his secretary and later dealt with at appropriate times.

S	O	B	C
chart, desk files, binder	"file right away and don't waste time"	use of three tier file, instructions to secretary	achieving progress on chart, perceived greater efficiency with mail handling, tangible "reward" (dining out with wife)

The unnecessary handlings virtually dropped to zero (Figure 2). The manager stated that with the new system that most of the unnecessary paper handlings had been eliminated and considerable time had been saved.

Exit interview. Participant Two reported that all three behaviors were important to him and had been successfully managed. He also planned to continue working on all

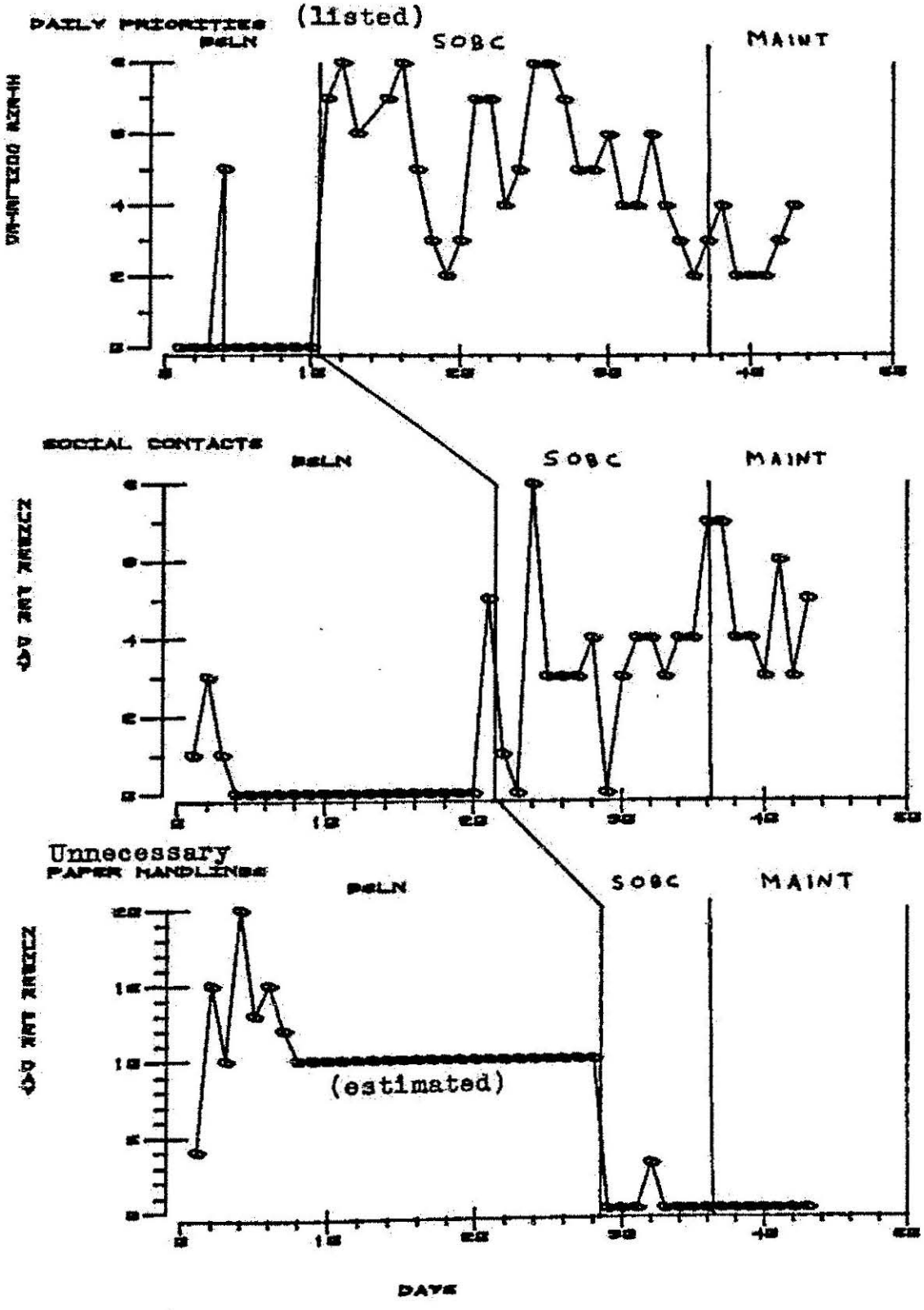

Figure 2: Data for each of three target behaviors for Participant Two (library director). BSLN = baseline; SOBC = treatment; MAINT = maintenance.

of them. He indicated that there were several other managers that would benefit from a similar project and the dollar amount of $1000 would be a reasonable fee. Overall, this manager was very satisfied with the results and did not have any specific suggestions for improvement in the program.

Participant Three

As a department supervisor in a university library, this manager's major responsibility was to coordinate the work activities of 8 to 10 full-time employees. He reported to the library director. From the start, this manager demonstrated reluctance in his desire to systematically change his behavior. The program was hindered by several reoccurring excuses for not recording the data. In this case only two behaviors were targeted for change. The program was prematurely terminated following the manager's statement that there was an extremely large project due shortly and, because of this, he would not have enough time to record the behaviors.

Problem event A. In discussing possible target behaviors, Participant Three was very interested in getting one of his employees to work faster. He related that other workers produced twice as much as the targeted employee in the same amount of time. It was decided that by approaching this worker concerning work-related manners, Participant Three would be making progress towards more effective management. The treatment process can be diagrammed as follows:

S	O	B	C
wall-chart, binder, desk calendar, notes	(undetermined)	approach target employee and discuss business	achieving progress on chart, perceived increases in communication and rate of work

As Figure 3 demonstrates, this process had very little effect on the manager's approach behavior. The data show a very slight, unstable increase in the number of work-related contacts per day. After 3 weeks, extrinsic rewards were added to the consequence (C) section of the program. The manager was to allow himself cigarettes, coffee, and (at his suggestion) candy if he reached the goal of two contacts per day. Nevertheless, the manager's performance failed to improve.

Problem event B. Participant Three desired increased communication from his workers. The second target behavior was aimed at increasing the number of questions asked, legitimate requests, and discussions of work-related matters. The manager's behavior to attain this goal was his use of verbal prompts and informal discussions during which he would suggest that employees approach him more often. The reason that this problem event was included despite its vagueness and questionable relevance to the study is that Participant Three could not think of any other concrete problems in his managerial style.

S	O	B	C
wall-chart, binder, desk calendar notes	(undetermined)	suggestions given to employees	increased contact, resolved conflicts

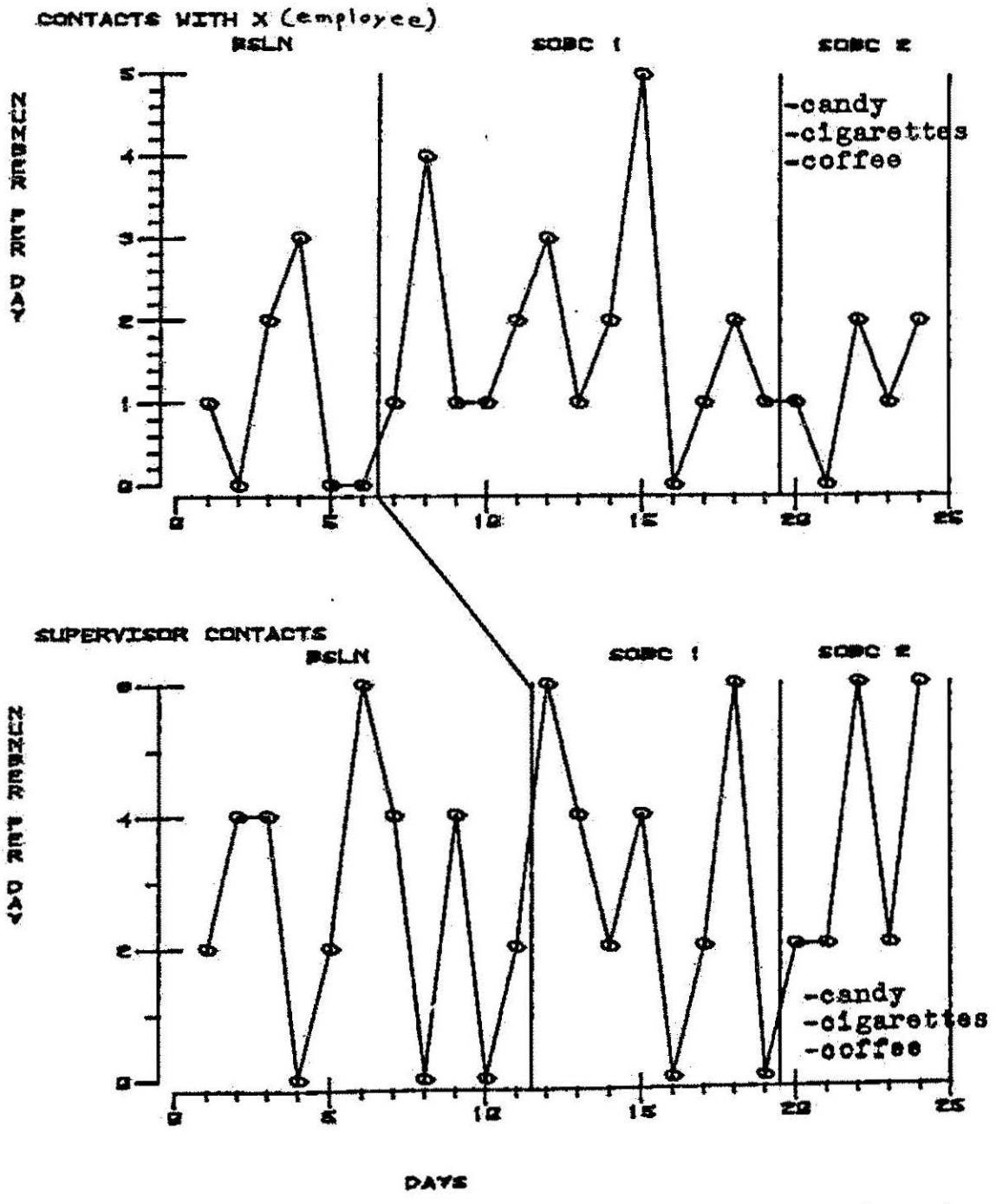

Figure 3: Data for Participant Three's (library department supervisor) contacts with employee x, and contacts initiated by subordinates. BSLN = baseline; SOBC = treatment.

Again as evidenced in Figure 3 the S-O-B-C process had a negligible effect on the number of employee communications. After several days, extrinsic rewards were added (as with problem event A). Here again there were no noticeable effects and the program was subsequently terminated.

Participant Four

The fourth participant was the plant manager in an agribusiness production company. Participant Four directed the three major sections of the processing plant and coordinated activities with the distribution division. This manager had been employed in various positions by the company for over 20 years.

Problem event A. Since being promoted to an administrative position, Participant Four reported a perceived detachment from his former peers. As their supervisor, he thought that an increase in his contacts and visibility would increase their performance. His goal was to visit at least one of the three sections of the processing plant for 15-20 min each day. We set up the following contingency plan:

S	O	B	C
wall-chart, binder, desk calendar, notes	"can't forget the plant visit"	at least one visit per day (one or two supervisors per visit)	achieving progress on chart, increased contact with employees, self-reward of social time away from desk

Although the operation was in the off-season, the manager's plant visits increased from a baseline mean of .3 per day to a consistent average of two per day. The results of student interviews with the five plant supervisors revealed that over a 2-day sample period all five of the supervisors reported an average of 1.5 daily contacts with the plant manager. The supervisors estimates correspond closely with the managers records of two plant visits per day. Several plant supervisors stated that during the past few weeks they had seen the plant manager more than during the entire past year. Their response was highly favorable. Maintenance data indicate that the behavior was maintained at an acceptable level. (See Figure 4.)

Problem event B. Participant Four's second behavior management effort was focused upon the documentation of employee performance. He chose to try to record one performance incident per day, (i.e., positive or negative work-related activity) on any of the nine foremen. We reasoned that with very little time expenditure he could compile written job performance information on each worker every 2 weeks. The S-O-B-C process was again used in this manner:

S	O	B	C
performance files, wall-chart, formal evaluation deadline date	"one notation a day"	recording in performance files	compiled information for evaluations, chart progress, leisure visits with office staff

As Figure 4 indicates, the amount of documenting behavior increased from about zero to a mean of one per day. Percentage agreement/disagreement reliability revealed a 100% correspondence between the manager's chart records and the actual employee performance files. Maintenance data show a consistent level of the acquired behavior.

Problem event C. The final behavior to be dealt with was the daily prioritization and completion of daily tasks. Manager Four stated that his daily activities were not adequately coordinated and as a result, a large amount of time was wasted. The behavioral self-management approach included using daily priority sheets that the manager would fill out the night before each working day.

S	O	B	C
priority sheets, chart	"I'll be doing a better job"	fill out sheets, complete items	completed sheets, achieved progress on chart, perceived better organized day

The number of completed prioritized items increased from zero to a mean of 5 per day. The data should not imply that the manager was doing nothing prior to the treatment phase. The results are in terms of listed and completed items. The improvement was in terms of his perception of increased effectiveness, less confusion, and reduced frustration. The correspondence between the manager's chart data and the daily priority sheets was excellent (100% correspondence). The behavior maintained at a level that was

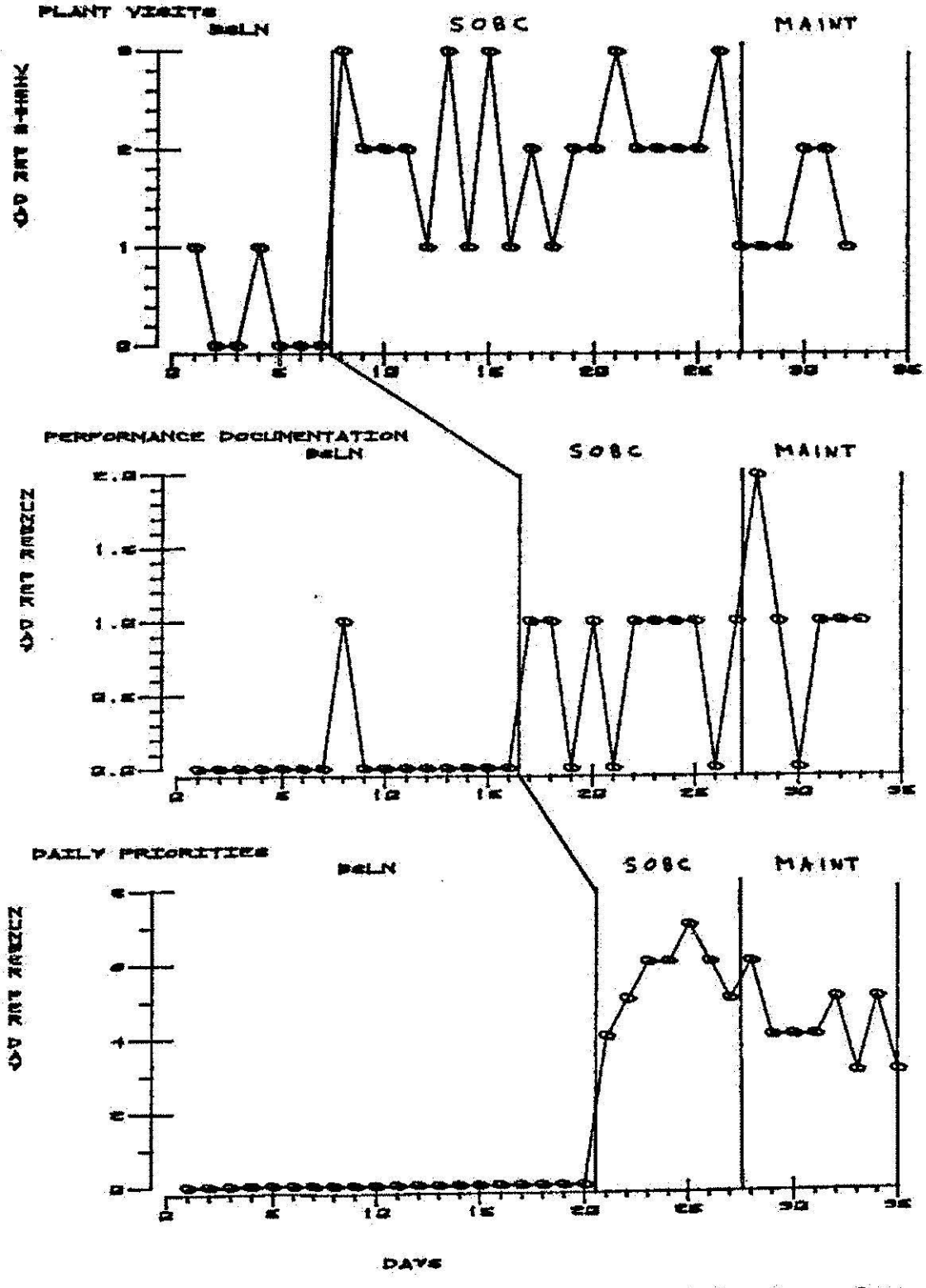

Figure 4: Data for each of three target behaviors for Participant Four (plant manager). BSLN = baseline; SOBC = treatment; MAINT = maintenance.

well above the baseline level. (See Figure 4.)

Exit interview. When interviewed at the completion of the program Participant Four expressed that all the problem events were very important and had been successfully managed. His plans are to continue dealing with all three. This manager knows of two other managers in his company that need a similar program. He estimated an amount of $500 that his company would pay for similar consultant services. Participant Four added that the program was definitely beneficial to him. Moreover, he plans to add other problem events to the list that he is attempting to manage.

Participant Five.

The distribution manager of an agribusiness production company felt that by participating in the program he would be able to better communicate with his own subordinates and with outside business associates. His duties included direct supervision of five workers in the world-wide distribution of the company's product. For over 20 years this manager had worked in various divisions of the company. At the time of this study he stated the desire to refine and increase his managerial skills.

Problem event A. Participant Five was concerned that he was not communicating well with the five distribution supervisors under his command. The main difference between his goal and those of Participants One and Two is that he wanted to increase the number of business and career

development contacts because his social contacts were more than adequate.

S	O	B	C
group tasks, charts, binder	"talk with the guys today"	approach workers and discuss chosen topics	achieving progress on chart, perceived improvement in communication

Results show an increase from a mean of 1.1 to a mean of 4.5 contacts per day. The student reliability interviews introduced a unique problem in that the supervisors recalled 1.5 times as many contacts as the manager. Two students interviewed each supervisor. The subordinates' remarks indicated that either the manager was very conservative in his recording or that the types of communications (i.e., social vs. business) were not differentiated by these subordinates. The behavior appears to have maintained at four times the baseline level for several weeks after the onset of the program.

Problem event B. The next problem for Manager Five was his reluctance to work on high priority items. We defined high priority items ("hipos") as having high company payoff and a high degree of urgency. The four areas that he chose to define were 1) calls, 2) his supervisory/affairs, 3) self-development, and 4) miscellaneous. The program was as follows:

S	O	B	C
Hipo sheets, chart, calendar, notes	"high priority first"	completed high priority items	achieving progress on chart, on-going file of completed "hipo" sheets

During the 4 week period following the start of treatment the number of completed "hipos" increased from less than one per day to a mean of three per day. (See Figure 5.) The experimenter compared the manager's charted data to the actual results of the completed "hipos" (i.e., memos, reports, etc.) and found a correspondence of 85%.

Problem event C. The final problem behavior for Participant Five was the number of business related contacts with outside firms. Because this manager's duties were related to international product distribution it was essential that he develop and maintain current business contacts. To this end, the following behavioral self-management strategy was constructed:

S	O	B	C
chart, binder, desk calendar, notes	"make the contacts; good for business"	contacts made via telephone, letter, telex	achieving progress on chart, new contacts, increased satisfaction reported by manager

During the treatment phase of the program the number of business contacts increased by an average of two to four contacts per day. Percentage agreement/disagreement reliability was computed at 90%. As with Participant Two, problem event B (Figure 2), the final baseline data points are much higher than the previous 9 data collection days. In this case, Participant Five missed 2 days of work. Since this was a planned absence he purposely made a special effort to contact outside firms before and after his 2-day absence.

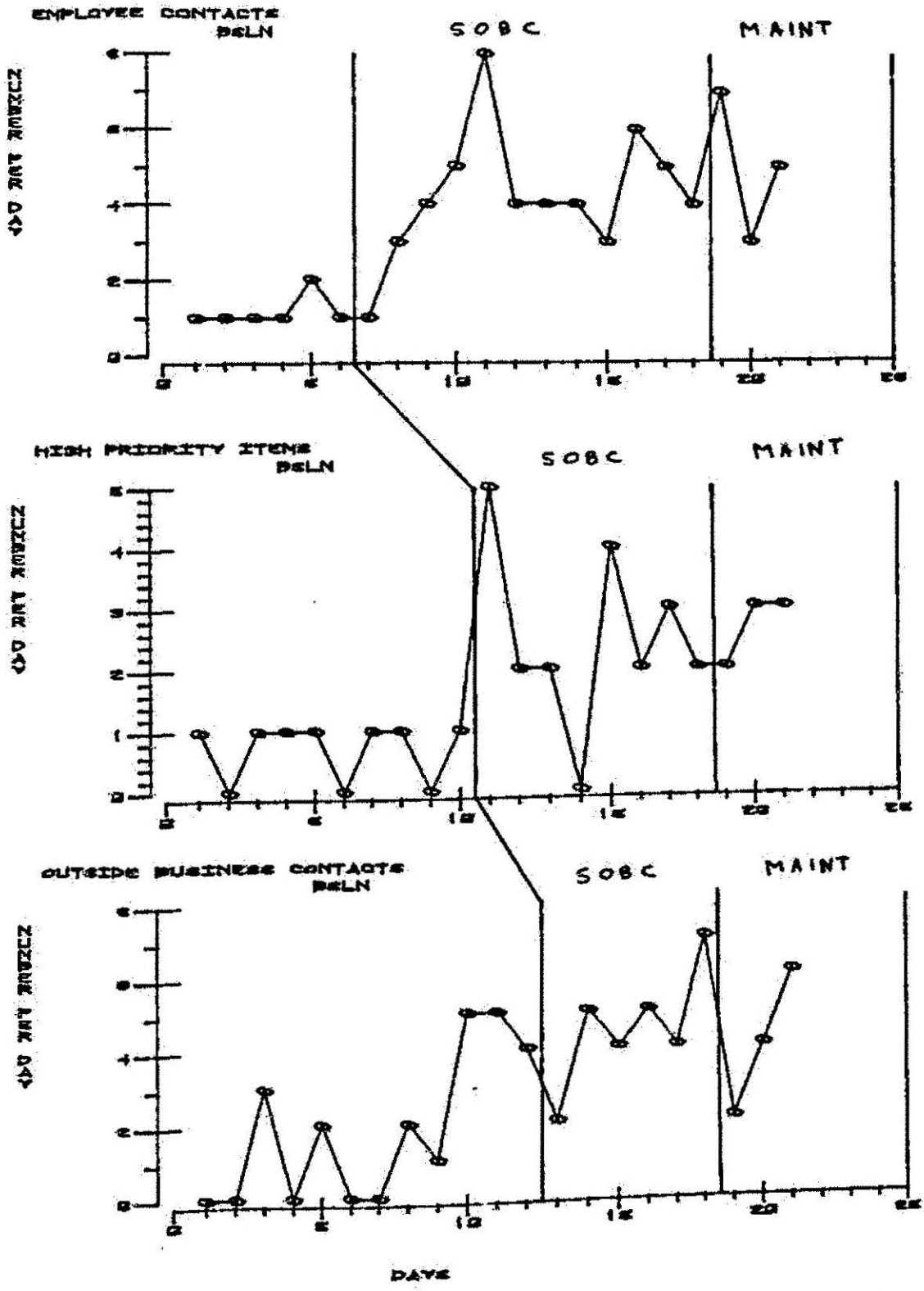

Figure 5: Data for each of three target behaviors for Participant Five (distribution manager). BSLN = baseline; SOBC = treatment; MAINT = maintenance.

Exit interview. Manager Five indicated that he considered all the programs successful and that he planned to continue working on them. He said that he knew of four other managers in need of similar services. He guessed that the company would pay $500 per manager for similar services ($100 per hour by 5 hrs). The manager stated that the visual cues (S) were very effective and that they led to internal awareness and confidence. An interesting comment was that he missed the "team aspect" of the program. Although the program was aimed at self-management, he thought that more of a team effort would have been appropriate; presumably he would have been more motivated to succeed if the five supervisors reporting to him had been simultaneously working with him on the self-management project.

Participant Six

Holding the title of warehouse superintendent, Participant Six also worked for the same production company as Participants Four and Five. The present manager's responsibilities encompassed security, sanitation, storage, and all areas of the processing plant. Largely due to these varied and divergent responsibilities, this manager wished to focus on relationships with his eight direct subordinates and his personal management skills. He reported to the plant manager.

Problem event A. Employee contacts was the first behavior to be tackled. He chose five target foremen and set a goal of contacting each of them at least one time per day. His definition of contacts was any interchange involving career or social topics that he initiated. The treatment sequence was the following:

S	O	B	C
chart, binder, desk sign: "contacts"	"oh yeah, the contacts"	career/social contacts with each foreman	achieving progress on chart, positive feedback from foremen

As Figure 6 demonstrates, the number of contacts increased from approximately 1.5 per day during baseline to 5 per day during the actual treatment phase. During 3 weeks of maintenance, the number of contacts remained at the same level. When the five foremen were interviewed by two students, they estimated an average of three times as many contacts as Participant Six had recorded. It appears that the foremen counted all contacts while the manager was more selective and recorded only those that fit the criteria. Appendix H contains an example of the reliability questionnaires for the first problem event (A), for Participants Four, Five, and Six.

Problem event B. The second behavior chosen by Participant Six was incident documentation. He decided to increase the number of minutes spent documenting employee performance per day. He reasoned that he would be more effective if he had written instances of his workers'

positive and negative behaviors.

S	O	B	C
chart, binder, employee files	"need to record each day"	recording in each file	achieving progress, on chart, updated files,

Results indicate that the manager spent just under his goal of 15 min per day recording employee performance. The behavior rate was zero throughout the baseline phase. The experimenter found a 95% correspondence between the manager's chart and the actual employee performance files. The behavior was maintained at a stable level for several weeks.

Problem event C. Participant Six also chose the prioritization of daily tasks as a behavior to be managed. He had been using his daily calendar to record various tasks that needed to be accomplished. The baseline data were taken from his desk calendar while treatment data were taken from the daily priority sheets. The program consisted of using daily priority sheets in the following contingency analysis:

S	O	B	C
chart, daily sheets, calendar notes	self-reminders to fill out sheets	fill out sheets, complete items	achieving progress on chart, completed tasks, perceived organized day

Figure 6 suggests that the behavioral self-management strategy had a definite effect on the number of items completed per day. The correspondence between the manager's chart and the daily sheets was 100%. Maintenance data indicate that there was a gradual decline starting about 1½

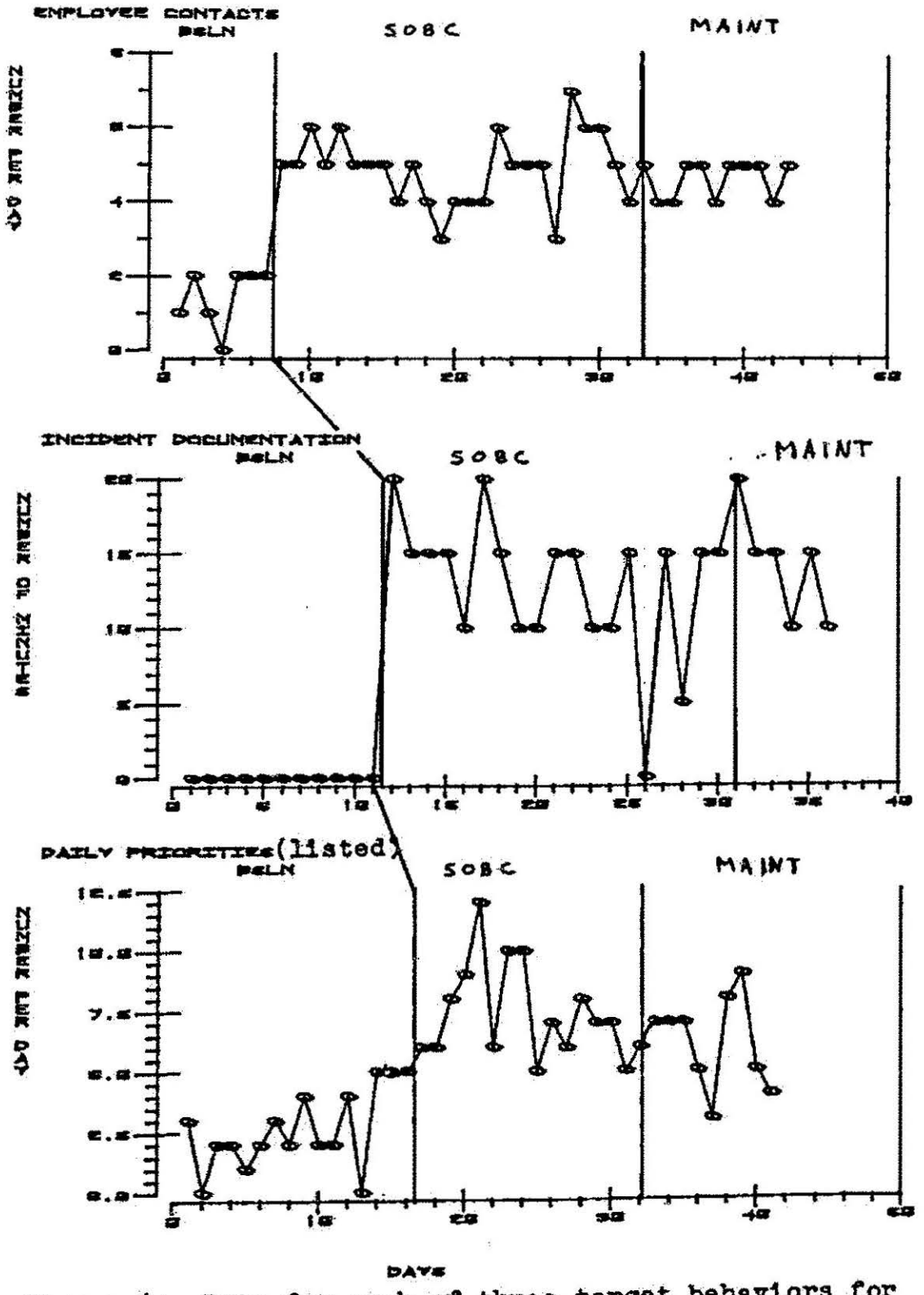

Figure 6: Data for each of three target behaviors for Participant Six (warehouse superintendent). BSLN = baseline; SOBC = treatment; MAINT = maintenance.

weeks after the start of the treatment phase. It is possible that the manager began using his desk calendar along with the daily priority sheets to outline tasks.

Exit interview. Manager Six reported that although all problem events were very important only two were successfully managed. He felt that the incident documentation (problem event B) was a bit too artificial. On occasion he had to "fish" for topics to record. He would have preferred some type of group effort. He does not plan to continue working on Problem Event B. Participant Six could not decide on an appropriate fee that the company would most likely pay. He was impressed with the practicality and significance of the overall program and stated that it was quite beneficial.

Participant Seven

The seventh participant was the property manager of a residential and commercial development company. The organization consisted of several wholly-owned subsidiary companies. His position was within a subsidiary management company. This manager supervised approximately eight resident managers, three office managers, and various staff members. He reported directly to the presidents of the management company and the sales company. He said that the timing for the self-management program was excellent because he had recently made a decision to remedy various managerial irregularities. At the start, he was very skeptical about the proposed project. His initial ambivalence faded as he saw the immediate

positive effects of the program.

Problem event A. The first in the series of office problems was that of daily interruptions by maintenance men. Participant Seven was annoyed by the amount of time taken to schedule daily maintenance activities and the unscheduled intrusions throughout the day. He decided to decrease the number of times his two maintenance men made unscheduled visits to his office. The manager's behavior to be modified included giving verbal and written instructions and taking the men out to lunch when the disruptions were reduced.

S	O	B	C
chart, memo to workers, binder	keep guys informed, "I'm responsible"	present problems, give feedback, guys out to lunch	fewer disruptions, 80 min saved per day, achieving progress on chart

The manager's behavior appears to have dramatically reduced the number of maintenance interruptions. The memo and the scheduled 5 min morning meetings were sufficient in meeting the goal and thus warranting the weekly lunches with the manager. Figure 7 also shows remarkable maintenance during follow-up with the only interruption following a request made by the manager.

Problem event B. Reducing the number of calls from resident managers was the second problem for this manager. He was receiving between one and eight calls per day from the resident apartment managers. The treatment sequence involved developing a problem solving step-by-step sequence for the apartment managers to follow before calling Partici-

pant Seven at the specified times during the day. The contingency program was:

S	O	B	C
chart, binder, perceived wasted time	"need to reduce these calls"	present problem-solving strategy, give feedback	charted reductions, fewer calls, more responsibility taken by apt. managers

Results show that the number of calls involving resident managers initially dropped to one every other day and leveled off to zero for most of the maintenance period. Participant Seven also noticed that throughout the study there were no more than three calls (total) even during the alloted times. This is impressive evidence that the manager's actions were highly effective in teaching the resident apartment managers to do more problem solving without interrupting Participant Seven. His records were identical to those of his secretary. All in-coming calls had to first, go through the secretary.

Problem event C. The third event that Participant Seven was concerned with centered around the quality of his secretary's work. Baseline was taken on 12 daily tasks that she was required to perform. The seven that were routinely completed to the manager's satisfaction were eliminated from the study, leaving the remaining five for treatment. The manager's behavior was aimed at informing the secretary of the problem and verbally praising her for improvement

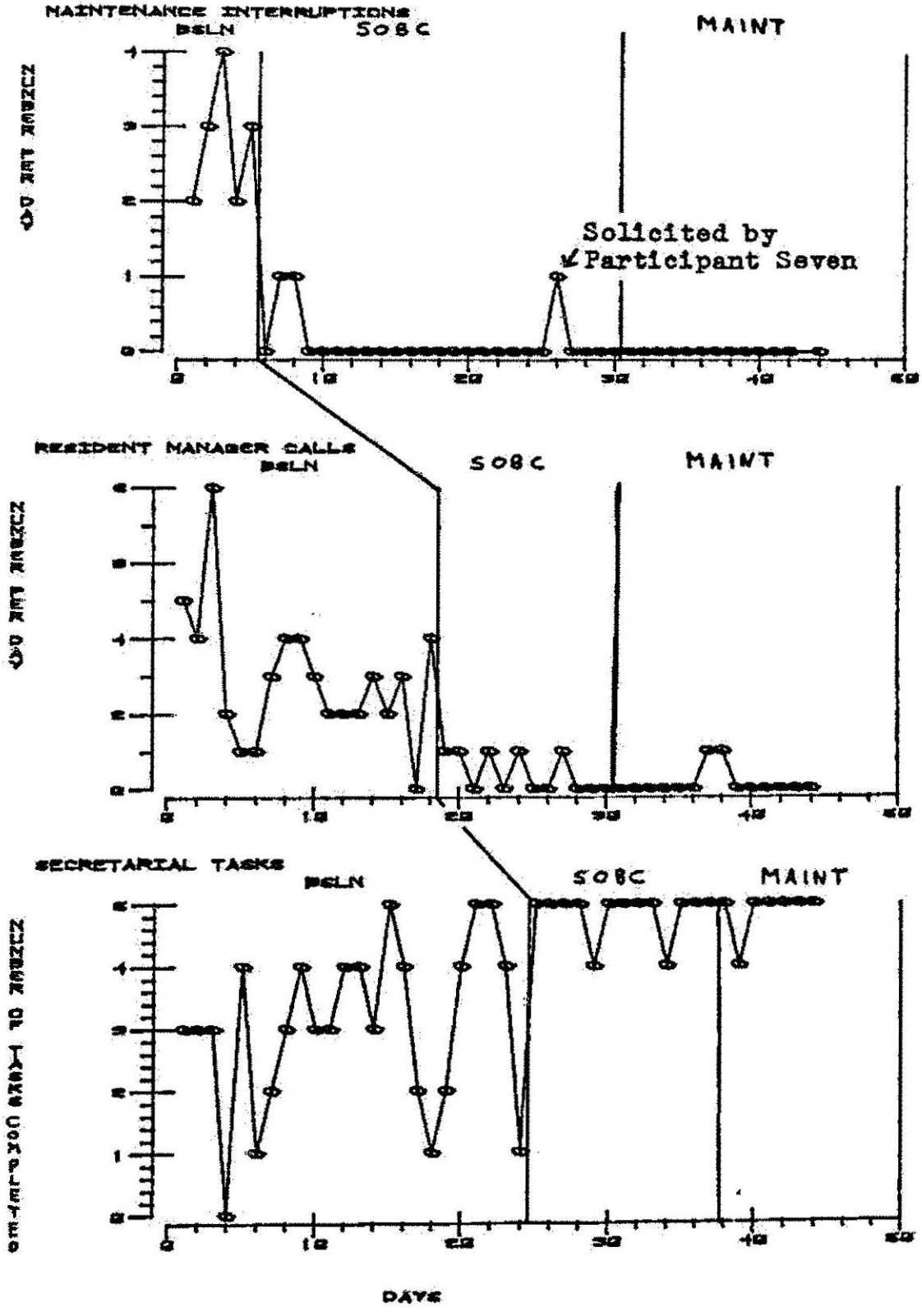

Figure 7: Data for each of three target behaviors for Participant Seven (property manager). BSLN = baseline; SOBC = treatment; MAINT = maintenance.

in any of the five areas.

S	O	B	C
chart, binder, secretary's presence	"remember the feedback and praise"	give feedback, praise good performance	achieving progress on chart, perceived better performance, take wife out to dinner

The secretary was shocked that her behavior had been so variable (Figure 7). This information along with the praise and attention influenced her performance such that she successfully completed all five tasks 14 out of 17 days during the treatment and maintenance phases of the study. Reliability consisted of comparing the manager's chart to the original check-off list (correspondence = 100%).

Exit interview. Manager Seven reported that all three behaviors were very important, successfully managed, and were worth continuing. His own figures indicated that the success of Problem Event A alone, would save his company more than $1,000 per year. He indicated that two other managers could use similar assistance and that the consultant time was worth at least $100 per hour. He was very pleased with the program's timeliness and effectiveness.

Participant Eight

The new-home sales division of the same development company as Participant Seven was directed primarily by manager number eight. His duties revolved around personally selling homes, supervising salesmen, and working closely with the sales company president. Participant Eight also

stated that at that time he had been contemplating possible solutions to urgent managerial problems. Although the eighth manager's consistency and cooperation wavered during parts of the program, he expressed definite interest in participating throughout the endeavor.

Problem event A. The initial behavior to be changed was that of completing priority items that were scheduled over each 2 weeks of the managers work routine. Due to his usual work cycle that repeated every 14 days, Participant Eight felt that this type of scheduling would help him to complete a large collection of unfinished priority tasks. The following sequence was used:

S	O	B	C
2-week flow-chart, wall-chart, file of unfinished tasks, calendar notes	thoughts about reducing pile of items	outline priorities, finish 2-4 per day	smaller piles, chart records, freed up time to sell homes

The program assisted the manager in completing between one and seven priority items per day rather than the previous maximum of two ... (Figure 8.) The behavior appears to have maintained for over 6 weeks, however, it can be expected to decrease as the unfinished tasks are gradually completed. The experimenter noted a 100% correspondence between the manager's chart and the number of completed items from the file of unfinished tasks.

Problem event B. Initially, Participant Eight desired

a reduction in the total number of phone calls that he was required to make every day. During baseline however, he decided to increase the number of phone calls that he initiated and completed concerning business affairs. This change necessitated estimating the baseline at one initiated and completed call per day. The actual number is reported to have been at zero on various days. (See Figure 8.)

S	O	B	C
chart, few business contacts, binder	internal commitment to make calls	dialing numbers until a response is obtained	charted progress, possible new business and higher income

The manager's phone-calling behavior slightly increased from a baseline average of one call per day to a treatment average of two completed calls each day for about 3 weeks. Maintenance data indicate that the average number of calls per day increased to three and did not fall to zero on any day. The statement was made that during the treatment phase, much of the manager's calling time was taken by catch-up work and meetings with the present experimenter which did not occur during maintenance. This may account for the unusually positive increase during the maintenance period (i.e., 3 weeks after the start of treatment).

Problem event C. The final problem behavior for Participant Eight was an unacceptable number of daily interruptions. As Figure 8 portrays, the number of daily disturbances was quite variable, peaking around the time that his

secretary was ill. As Figure 8 also indicates, there is neither treatment nor maintenance data. The reason for this is that as a result of recording baseline data, Participant Eight reasoned that this problem was not immediately solvable at that time, and proceeded to hire an additional secretary. The last five data points, recorded during baseline after her hiring, suggest that the problem was being eliminated. The behavioral self-management technique was nevertheless illustrated after-the-fact:

S	O	B	C
baseline data, low productivity, company pressure	stress/confusion	hire new secretary	fewer annoyances, less load on manager, more work accomplished

Unfortunately the manager decided to discontinue recording after 5 days of very satisfactory performance during baseline. He reported that the number of interruptions dropped off even further.

Exit interview. In spite of the above-mentioned irregularities, Participant Eight stated that all three events were important and successfully managed. He planned to continue working on two of them. According to this manager there are three other managers in need of a behavioral self-management program. His estimate of the worth of the program was $100.

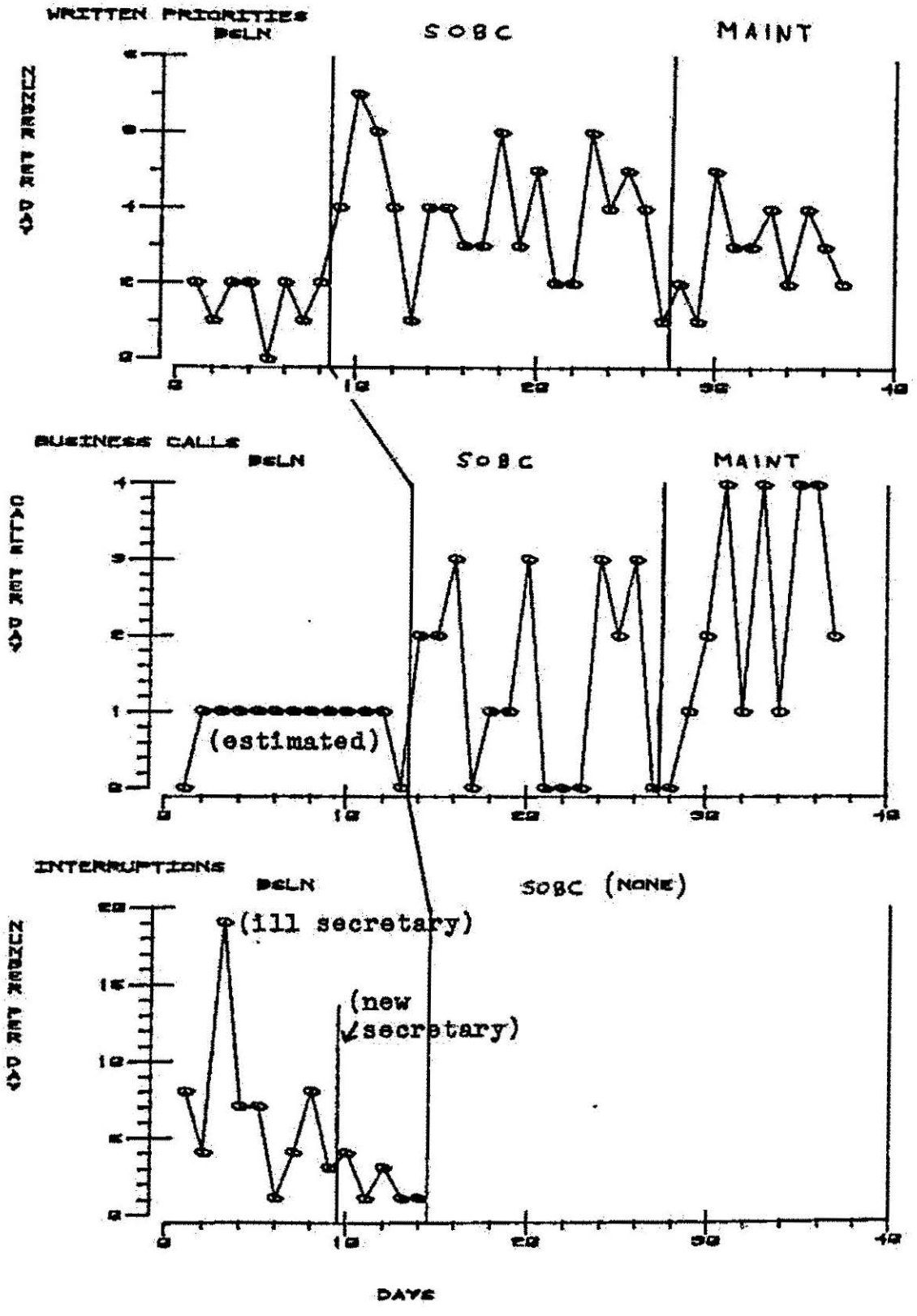

Figure 8: Data for each of three target behaviors for Participant Eight (new-home sales manager). BSLN = baseline; SOBC = treatment; MAINT = maintenance.

Order Effects/Group Comparisons

To determine whether a target behavior's chance of success was different whether it was the first, second, or third to be treated, nine individuals who were knowledgeable of the techniques and principles of applied behavior analysis were asked to rate each of the 23 target behavior graphs on the amount of behavior change from baseline to treatment (Appendix I). These persons included three with Masters degrees in applied behavior analysis and six with at least 2 behavior analysis courses. On a 5-point scale ranging from (1) "no change at all," to (5) "dramatic change," the mean ratings for the A, B, and C Problem Events were 3.5, 3.3, and 3.7 respectively. An analysis of variance failed to reveal any significant relation between the ratings of the amount of change and the order of treatment presentation, F (2, 13) 1.

Table 1
Summary of Analysis of Rating Data

	SS	df	ms	F
Participants	14.47	7	2.07	
Order	.63	2	.32	—
Part. X Order	6.52	13	.50	
Total	21.62	22		

Because several managers selected employee contacts and daily priorities as target behaviors, the experimenter used the survey ratings to see if either problem had an unusual

success rate. Five participants chose some type of employee contact to work on, with a resulting 3.2 mean amount of change. Daily priorities were also selected by five participants with a mean rating of 3.5. These two mean ratings deviate very little from the mean survey ratings of all problem events. From these results it is reasonable to conclude that although they were chosen often, neither employee contacts nor daily priorities had any better or worse chance of success than the other target behaviors.

A modification of the R_n statistical tests (Hersen & Barlow, 1976) was applied to the eight replications of the three-leg multiple baseline design. The assumptions underlying the use of this test include: (1) the order of intervention across the three target behaviors for each participant was random, and (2) each participant's behavior is independent of every other participant's behavior. The percentage change from baseline transformation was applied to all raw scores. The resulting sums of ranks across the three (or two) target behaviors for each participant was: #1 = 3, #2 = 3, #3 = 3 (two behaviors), #4 = 4, #5 = 4, #6 = 3, #7 = 3, and #8 = 2 (two behaviors). The one-tailed probability of this set of eight sums and all possible smaller sums occurring by chance is less than .0001. Thus, across the three (or two) behaviors of the eight participants, the data at the point of intervention showed a change

in the expected direction that was in all but three cases greater than the temporally comparable baseline percentage level of each participant's two (or one) other target behavior.

Discussion

The study found that behavioral self-management was highly effective in all of the sample organizational areas. Seven out of the eight participants obtained very favorable results while 20 out of the total of 23 target behaviors were successfully managed. The results indicate that the approach can be effective in private, profit-making and non-profit organizations. The replication of outcomes using a multiple baseline design across eight different managers was a powerful demonstration that the behavioral self-management technique is versatile and applicable in many different managerial settings.

The multiple baseline design assisted greatly in attributing a causal effect to the behavioral self-management intervention. Of the 20 successfully managed target behaviors 18 have an unmistakably positive trend within 2 days of the introduction of the intervention. In most cases there is an immediate change in the positive direction while the target behaviors not yet treated remain at the baseline levels. Even the exceptions (i.e., Participant One, target B; Participant Five, target C;) were

considered, by the managers to have been successfully managed due to the intervention. Target behavior C for Participant Eight was resolved before the intervention was to begin. Overall, the introduction of the behavioral self-management strategy coincided with an immediate, favorable change in the rate or duration of the target behaviors.

Although good estimates of reliability were obtained in several cases, in other instances the managers' functional needs superceded considerations of good experimental procedure. For example, daily contact with employees and reducing daily interruptions were essential to several participants, however, in their particular work settings most reliability measures would have been a major source of interruption. The successful replications across a variety of behaviors, settings, and managers indicates the robustness of the intervention procedure even though for many target behaviors there is little or no reliability data.

The organismic variable in the stimulus, organism, behavior, consequence (S-O-B-C) sequence was the most difficult to measure and evaluate. As stated in the third prerequisite for using the behavioral self-management approach (Luthans & Davis, 1979), the manager must be as aware of as many details of the behavioral contingency as possible. The present experimenter attributes a considerable amount of the program's success to the full disclosure of program

details to each manager. Future research should be aimed at improving and assessing the function of the organismic variable and its measurability.

The results of the exit interview were highly favorable. Most managers felt that the program was very useful and practical. In almost every case the managers estimated that each target behavior had been successfully managed and that they intended to continue the program. Responses to questions 9 through 17 of the exit interview reflected considerable satisfaction with the content and presentation of the study, without any negative sideeffects or reactions. The average ratings for the first eight questions are circled. (Appendix E.)

A final point is that behavioral self-management is only a link in the entire organizational productivity chain. The present study supports the claim that the approach is very effective and that it has a wide range of application. If however, the measurement and evaluation processes were to stop with behavioral self-management it is conceivable for an organization to have the best middle-managers in the industry while having the lowest organizational productivity. The success of behavioral self-management does not reduce the need for measurement, evaluation, feedback, and accountability at the entire organizational level.

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Appendix A

Program Description

You are being asked to participate in a study which will eventually be part of a Master's thesis at the University of the Pacific. You have been asked to take part because you are employed in a managerial position. Because you have superiors to report to, and employees to supervise, you are most likely to be an ideal participant in this project. Many people in managerial positions such as yours have a daily schedule that is continuously interrupted by phone calls, memos, visitors, forgotten chores, small crisis situations, and so forth. Because these problems often result in wasted time, increased frustration, and poorer performance, most managers would benefit if such interruptions were placed under better control. This project is designed to give you assistance in identifying and managing these potential problem events. The basic requirements for this project are these:

1. You must occupy a full-time managerial position.
2. You and I must specify in detail, certain problems or activities that prevent you from performing at your own estimated optimum level.
3. You must be willing to record these behaviors and adhere to a self-management program for about 6 weeks. (I will describe the actual procedures in more detail as we outline the problem events.)

If you feel comfortable with each of these requirements, we

can start to systematically analyze and control these events. This will, of course, take some of your time, and you will be asked to keep accurate records, but there will be absolutely no consulting costs involved. The usefulness of these procedures has been demonstrated in research in applied settings. There is no absolute guarantee that all problem events will be eliminated. However, on the basis of information about self-management I believe that these techniques will be effective in managing some of the problems. Your participation will be appreciated. Thank you.

Appendix B

Contract

Realizing that a written and signed document will help both Rick Griggs and I to remember our responsibilities and commitments in regards to this project:

I, (participant's name), voluntarily agree to participate in this project. I understand that the following requirements must be met on my part;

- I must be available to participate for at least 4 to 6 weeks.

- I realize that I will be asked to keep accurate records of certain behaviors that we will agree upon.

- I will allow Rick and/or another observer to collect and record additional information that we will also agree upon.

I understand that this project is designed in my best interest, yet there is no guarantee that all attempts at changing problem events will be successful.

If I choose to do so, I may withdraw my participation at any time.

Signed _____

Date _____

I, Rick Griggs, will adhere to the ethical standards of psychologists, as outlined in "Ethical Principles in the Conduct of Research with Human Participants" (APA, 1973). I will interfere as little as possible with (participant's name) daily work activities.

Signed _____

Date _____

Appendix C

Sample Problem Events

- unscheduled visits - staff - salesmen, etc.
- too many phone calls
- employee depending on supervisor in excess
- paper handling
    - too much
    - too many times
- leaving office without notice
- inappropriate sexually oriented gestures
- excessive criticism
- too little criticism
- too little praise
- adherence to energy conservation guidelines
- incomplete expense forms
- late time cards
- loitering - (wasting time)
- inappropriate, distracting noises
- instructions not carried out
- inappropriate clothing
- eating at work
- reading at wrong times
- business contacts (too few)

Appendix D

Verbal Narrative

The first step in the process of changing these dysfunctional behavior patterns is to record how often they actually occur. By doing this we can form a clearer picture of when, where, and possibly why these problem events occur. After obtaining a record of their occurrence, our emphasis will be to focus on both sides of each problem event (i.e., what comes before it, and what follows it). Our strategy might also include an alternate, more appropriate response that would alleviate the problem. Next, as appropriate, we will set up certain cues that will make it easier to remember what you are to do in order to increase your effectiveness. These cues or aids may be wall-charts, notes, index cards, markers, and so forth. We will also set up reinforcing or favorable consequences to follow what has been chosen as the right type of response. These favorable events can include allowing yourself a social phone call, a coffee break, a few minutes of leisure reading, or some other activity that you enjoy doing. We will make these choices together.

Appendix E

Behavioral Self-Management

Participant Exit Interview

Student Interviewer_____

The purpose of this interview is to give you the opportunity to give candid reactions about the behavior management program that you and Rick Griggs recently completed. Please answer the questions on this page and then allow the student to ask you the remaining questions. Thank you.

1. How important were the problems that you and Rick worked on?

1 2 3 (4) 5

very unimportant very important

2. How many of the three problems were successfully managed?

___ zero; ___ one; ___ two; X three

3. How many of these problem events do you plan to continue working on?

___ zero; ___ one; ___ two; X all three

4. Are there other managers in your dept./company that would benefit from a similar program?

___ No; X Yes (if so, how many?) 3

5. How did you feel about the total length of the project?

1 2 (2.6) 3 4 5

too short just right too long

6. How much would your dept./company pay for a professional consultant to provide these same services?

___ nothing; ___ $100; X $500; ___ $1000; ___ other $____

(The mean rating has been circled or checked)

7. On the average, how much time per day did you spend recording your data?

___ two minutes; X five minutes; ___ ten minutes; ___other____

8. How well do you think Rick knew what he was talking about?

1 2 3 (4) 5

barely got by reasonably well knew it in detail

(give to student for remaining questions)

9. Did you experience any negative reactions (e.g., complaints, confusion, etc.) from other workers, staff, or supervisors as a result of this project?

None at all

10. What did Rick mean when he said that you would be "working on both sides of the problem", in other words the "S-O-B-C process" with the cues and consequences?

Six participants were sure, and could explain it well

11. What could Rick have added to the program to make it more effective for you and your dept./company?

Two managers mentioned a "group" effort. One said that the graphs could have been more professional.

12. How did you react to Rick's presentation of ideas? Was he too simplistic and artificial or was he appropriate and on target?

All were pleased and said that the ideas were right on target.

13. In your opinion, was Rick genuinely concerned with making you a more effective manager? Or did he just want to get his project done?

Most said "genuinely concerned"; two said "both".

14. Were there any problems created by the students who collected your records?

All said none at all; most managers wanted to take more time to casually "chat".

15. Do you think it was necessary to send students to collect the information or could Rick have gathered it at the regular times?

Most said that eitherway was fine but that Rick's time was most likely limited.

16. Did this project remind you of any workshops or seminars that you have attended? If so please describe them.

Some said "time management" seminars.

17. Is there anything else that you would like to add?

Most were pleased with results and impressed that the actual time (daily) investment was small.

Thank you very much for your time, Rick will be contacting you shortly for some final details.

Appendix F

Student Questionnaire

Library _____ Department

(Circle the appropriate letter)

1. How long have you worked in the _____ department?

   A. One term B. Two terms (1 yr.) C. Three terms (1½ yrs.) D. 4 terms (2 yrs.)

   E. _____

2. How many hours a week do you work?

   A. 6-10 hrs. B. 11-15 hrs. C. 16-20 hrs. D. 21-25 hrs. E. _____

3. In the past 2 days, how often have you talked with the Library Director (_____)?

   A. Zero B. 1 time C. 2 times D. 3 times E. _____

4. In the past 2 days, how many times has the _____ Supervisor (Name) initiated a conversation with you?

   A. None B. 1 time C. 2 times D. 3 times E. _____

5. Name 2 things that you would like to see changed in the_____ Department?

   1.

   2.

6. List 2 things that you enjoy about working here.

   1.

   2.

COMMENTS:_____

Appendix G

LIBRARY STAFF QUESTIONNAIRE

1. While you are working, who do you come in contact with the most?

2. Who are your supervisors?

3. Do you find your job satisfying? Explain

4. How often do you talk with the Library Director ( )?

5. What type of things do you talk about? (e.g., social, work, business, career)

6. What do you like most about your job?

7. What change would you like to see in the library?

EXPLAIN CARD

- # of contacts over the next two (2) working days
- Divide them into work-related and social contacts
- Do not count today
- Only count ones where Mr. (Name) approaches you

Appendix H

Agribusiness Questionnaire

(Participants Four, Five, and Six)

DATE_____

INTERVIEWER:_____

WORKERS' INITIALS:_____
(optional)

1. What is your position/title?

2. How long have you worked for _____?

3. Who is your supervisor?

4. How many times has your supervisor _____ talked to you during the past two (2) working days? (Do not count today)

5. What do you enjoy most about your job?

6. Is there something that you would like to see changed, as far as your job responsibilities are concerned?

7. Would you like to describe your future plans? (Next few years)

Appendix I

Behavior Change Rating Scale

Please rate the following 23 graphs on the amount of behavior change obtained from baseline (BSLN) to treatment (SOBC). Write only on this sheet (not on the graphs). Use the following scale to make your decisions. Check each graph number carefully and mark the appropriate number on this sheet.

1	2	3	4	5
no change at all	little change	medium amount of change	considerable amount of change	dramatic change

1A 3.6*
1B 4.0
1C 3.9

2A 4.1
2B 3.7
2C 4.7

3A 1.4
3B 1.0

4A 3.6
4B 3.6
4C 4.7

5A 3.8
5B 3.1
5C 2.3

6A 4.1
6B 4.6
6C 3.2

7A 4.7
7B 3.3
7C 2.7

8A 2.6
8B 2.7
8C 4.1

*Mean Ratings are presented

Would you please make a quick check to see that all of your answers are in the right spaces (number 3 only has A and B).

Thanks!