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The Effects of a Management System in a Non-Profit Association

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THE EFFECTS OF A MANAGEMENT SYSTEM IN A NON-PROFIT ASSOCIATION

by

Lori H. Miller

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

Western Michigan University Kalamazoo, Michigan June 2001
ACKNOWLEDGEMENTS

I first want to thank my advisor, Dr. Dale Brethower, for guiding me into a world full of systems. Thanks to Dr. Maria Malott for helping me to develop professionally as well as personally, and by teaching me the practical nature of behavior analysis. Very special thanks to Dr. John Austin for adding his detailed expertise to the final product. Thanks to my husband Andy, for never doubting my abilities to persevere. Thanks to Mom, Bob, Kim and Grandma and Grandpa Kutilek, for being proud of me.

Lori H. Miller
THE EFFECTS OF A MANAGEMENT SYSTEM
IN A NON-PROFIT ASSOCIATION

Lori H. Miller, M.A.
Western Michigan University, 2001

The primary challenge for non-profit associations is carrying out the functions that meet the various needs of their members or Board of Directors with restricted income. In many non-profits there are numerous tasks to complete with few personnel. Existing literature on the topic of non-profit management has limited applicability regarding managing staff performance. The current study examined the effects of a management system that included weekly meetings, goals and feedback on the performance of four employees in a non-profit association.

This study was an ABC group design where Condition ‘A’ consisted of weekly meetings and goal setting, Condition ‘B’ consisted of weekly meetings, goal setting and group feedback, and Condition ‘C’ consisted of weekly meetings, goal setting, group and individual feedback. Both feedback components were delivered to participants at weekly meetings. The dependent variables in the study were tasks completed and points earned. Both dependent variables were measured on a weekly basis. Results show that performance levels for the group as well as for individual participants were the highest when all components of the management system were combined in Condition ‘C’.
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CHAPTER I

INTRODUCTION

Change is often a complicated process for non-profit organizations (Cooke, 1979; Wilbur, 2000). Environmental influences such as political changes, social reform, and government regulations continuously transform the non-profit industry. Not only must non-profits adapt to the changing political and social climate, but they must also change according to how these factors affect their consumers. Non-profit organizations are formed to serve the public good (Hodgkinson & McCarthy, 1992), and similar to the for-profit sector, non-profit organizations will live or die according to the consumers' needs for their products or services (Garrison, 1989; Rummler & Brache, 1995). It would be beneficial to contribute to the academic study in the non-profit sector while it remains dwarfed by the long history of scholarly investigation into the business enterprise (Billis, 1998).

A team of researchers for the Johns Hopkins University Institute for Policy Studies conducted a study in an attempt to analyze the scope, structure and roles of the non-profit sector on an international level. This research concluded that the four major fields of the non-profit association sector are education, health, social services, culture and recreation (Salamon & Anheier, 1996). Due to their scope and importance, it would be beneficial to enhance business practices of non-profit associations, particularly in the area of performance improvement.
It is critical that a non-profit organization, despite the term, earns a profit by operating with a high sense of priority and as efficiently and effectively as possible (McConkey, 1977). Because income for non-profits mainly comes from membership and other charitable donations, the primary challenge for non-profit associations is carrying out functions that meet the various needs of their members or Board of Directors with limited income to enhance the organization’s survival. Existing literature on the topic of non-profit management addresses important issues such as strategic planning, building and maintaining membership, building strategic alliances, managing finances, etc. (e.g., Bonk, Griggs, & Tynes, 1999; Borst & Montana, 1977; Wilbur, 2000), while it has limited applicability regarding managing staff performance. Non-profit organizations will greatly benefit from the dissemination of such resources, but there is a need for further exploration into conceivable methods of maximizing the dollars worth, essentially by improving the quality and amount of productivity in the workplace. This is an area where little attention is spent in literature dealing with non-profit management.

The role of association staff is an integral part of the success of the organization’s operations. A common problem, however, is that staff budget is often limited in a non-profit association because it is a function of the size and scope of the organization. Consequently, the primary challenge of managing a non-profit association is the large and varied range of activities with limited personnel especially in smaller associations, where many functions have to be performed by relatively few people (Mack, 1991). A further problem is that many non-profits go from crisis-to-
crisis or emergency-to-emergency because of the changes required by the external forces that drive the organization (Gelatt, 1992). A systematic method of managing staff performance would be a valuable addition to the limited study in the area of non-profit management.

Management systems are fundamental in the strategic alignment of an organization; they equip employees to bring the mission of the organization to life (Powers, 1992). An extensively researched style of management is performance management. Performance management involves the use scientific methods to change behavior and produce consistent effects (Daniels, 1989). Rummler and Brache (1995) suggest that performance management in an organizational setting involves the alignment between organizational goals and the goals of the performers. To do this, performers systematically set goals directly related to the goals of the organization.

In addition to goal setting, the interventions typically applied in the area of performance management include performance feedback and a consequence relevant to performance. Each of these performance management components has been examined in a variety of settings in attempts to tease out their independent effect. (Balcazar, Hopkins, & Suarez, 1985-1986; Burgio, Engel, Hawkins, McCormick, Scheve, & Jones, 1990; Crowell, Anderson, Abel, & Sergio, 1988; Duncan & Bruwelheide, 1986; Fellner & Sulzer-Azaroff, 1985; Gikalov, Baer, & Hannah, 1997; Komaki, Barwick, & Scott, 1978; Locke & Latham, 1990; Locke, Shaw, Saari, & Latham, 1981; Mento, Steel, & Karren, 1987; Wilk & Redmon, 1998). Researchers have concluded the most effective methods of improving staff performance include
goal setting and performance feedback yet neither feedback alone nor goal setting alone is as effective as both combined (Balcazar et al, 1985-86).

Though earlier studies show reliable effects of performance improvement when feedback and goal setting are combined, research in this area is limited with respect to the few number of tasks each person does and the complexity of the tasks that are done (e.g., Crowell, Anderson, Abel, & Sergio, 1988; Gikalov, Baer, & Hannah, 1997; Wilk & Redmon, 1998). Pritchard et al (1988) point out that a drawback of using simple jobs in studies on performance is that in many organizations, most jobs are more complex. This suggests the importance of conducting further research examining how to manage complex sets of tasks.

Units of measurement are of interest when determining the impact of an intervention. By measuring a few tasks, or a few behaviors, it is easy to obtain data on performance improvement in those specified areas. But few researchers have integrated performance management system as a process of managing performance of employees across jobs and tasks to obtain an accurate representation of their overall performance. Additionally, few investigations have evaluated the use of performance management procedures to affect all or even a major portion of an agency’s operations (Reid, 1999). Further research should be conducted that focuses on the productivity as either the efficiency or effectiveness of a group (Pritchard et al, 1988). Research such as this will contribute to managing the overall performance of employees and the impact on organizational productivity.
One way to integrate an effective intervention that is comprehensive and systematic is to establish appropriate contingencies for the people who maintain the intervention. For instance, Langeland, Johnson, and Mawhinney (1998) concluded in their study that as long as the supervisors maintained their practices associated with the intervention, staff performance remained constant. To maintain staff management in their study, managers were required to give consistent and relevant feedback. A weakness of this study however, is that only some of the tasks of employees were measured, thus not representing the overall work that needed to be accomplished.

Many practitioners and researchers have demonstrated that it is possible to improve performance in organizations, but maintaining those changes is frustrating and difficult. This study is an attempt to show that a management system must exist that maintains the alignment of performers goals in relation to their expected outputs. A successful management system must adapt to the changing variables of the organization, people, as well as internal and external environments.

Existing literature on the topic of non-profit management does not specify how to design, implement, and maintain a management system supportive of high levels of staff performance. Managers of non-profit organizations are too occupied with keeping up with the changing demands of the organization to develop a functional staff management approach. The value of conducting a systems based performance management study in a non-profit association is twofold. One benefit will be a demonstrated effective staff management approach that can improve the productivity of non-profit associations (and similar organizations). Second, a
performance management intervention in a work setting that contains few employees, many different tasks, and measures of group performance will contribute to the literature on the applicability of OBM procedures.

Purpose

The purpose of this study is to examine the effects of a performance management system consisting of goals, accountability and performance feedback on the performance of four employees in a non-profit association. The intervention package will show an increase task completion and goal setting related to the overall goals of the organization. Further, the study contributes to previous research on the effects of group and individual feedback, and emphasizes the relevance of performance management in similar organizations.
CHAPTER II

METHODS

Participants and Setting

The participants were three full time employees and one part time student employee of the association in which this study was conducted. The Executive Director and a part time student employee also participated in the management system, however, both were excluded as participants from the study because they implemented the intervention procedures and collected data. The organization has an additional part time student who was not a part of the study because his schedule was off hours; the evenings and weekends were not a part of the regular day-to-day activities of the organization. This student was a computer programmer. All of the participants—referred to as Participant #1, #2, #3, and #4 volunteered to participate in the study.

The setting in which this study was conducted was an international non-profit association founded in 1974 to promote the experimental, theoretical, and applied analysis of behavior. The major purpose of the association was to provide a forum for discussion of issues and the dissemination of information pertinent to its members. At the time the study was conducted, the association had 2,700 members, 21 Special Interest Groups, and 34 Affiliated Chapters located around the world.
The association’s activities include organizing an annual convention, publishing two scholarly journals, distributing a newsletter, organizing a cooperative bookstore, providing support for continuing education credits and accrediting behavioral graduate programs, maintaining mutually beneficial relationships with Special Interest Groups and Affiliated Chapters, distributing international and student grants, and conducting all the administration of the association. This description of the association’s activities reflects the vast amount of work tasks that the association accomplishes on a yearly basis. Although each staff member has a specialty area, all of the association’s employee tasks included a wide variety of functions. Common tasks among all employees were answering the telephone and email, assisting members and vendors of the association with various requests, and creating and maintaining specialty files.

The following information is intended to provide a breakdown of the participants’ main tasks. Participant #1 major responsibility was accounting; Participant #2 major responsibility was scheduling the convention program and carrying out administrative tasks; Participant #3 major tasks included generating the association’s publications (newsletters, convention submission requests, convention program book), professional interaction with organized groups of the organization, and assisting with professional correspondence; Participant #4 major tasks involved organizing the convention bookstore which included title research, calling publishers, negotiating contracts, and organizing all related logistics.
Independent Variables

The independent variables consisted of a performance management package including goal setting and feedback as the main components. There were two feedback components in this study. The first component consisted of the graphic representation of group performance data, which was shown to participants at weekly staff meetings (Appendix A). This feedback displayed the data from the beginning of baseline phase. The second component consisted of a data sheet displaying individual performance data from the previous week only (Appendix B).

Dependent Variables

There were two dependent variables (DV) for this study: (1) Percentage of tasks completed (2) Percentage of points earned. A completed task was defined by showing proof of accomplishment of the task, such as a written letter or the name of the computer file where a completed document could be found. Data were collected on a weekly basis from each participant’s report on the task lists. Participants were required to update their task list before the weekly staff meeting by a specified deadline. Additionally, the participants were required to have proof of completed tasks on hand in case the researcher asked to see them (to record reliability). The numbers of points contracted and earned were based on estimations of time spent or to be spent on a task. One hour was roughly equivalent to one point. Therefore, if a task was expected to take three hours to complete, then the participant would contract three points for that task.
Experimental Design

The research design was an ABC within group design measuring task completion in the five task categories described below. ‘A’ represented baseline phase and ‘B’ and ‘C’ represented two conditions of intervention. Condition ‘A’ included weekly meetings and goal setting, Condition ‘B’ included weekly meetings, goal setting, and group feedback, and Condition ‘C’ included weekly meetings, goal setting, group feedback and individual feedback.

Procedure

The annual tasks of the association were assigned deadlines that were recorded in an overall task list. The annual list was based on the commitment of the organization to its members and the Executive Council and the entire staff reviewed it once a year. During the yearly review, timelines of major tasks completion were adjusted when possible based on volume of work and other commitments (See Appendix C for the overall calendar of the association). All tasks were classified across five task categories. The categories were 1) Administration; 2) Bookstore; 3) Convention; 4) Council; and 5) Program (for breakdown of each task category see Appendix D). Tasks were categorized into five different categories because each employee performed tasks in at least one of the categories each week. The association developed a database system to monitor task completion. The database included a personalized section for each staff member to enter their weekly task goals, define a product for each task, assign points to a task, and report “done” or “not
done” for each task (Appendix E). Final reports of completed tasks were printed and distributed to review and to guide weekly staff meetings. Data were collected from these weekly reports.

Prior to baseline, participants were instructed how to categorize tasks, how to define a product of a task, how to assign points to a task, and how to report accordingly on the completion or noncompletion of a task. Participants were also informed that filling out their task list would be one of their weekly task goals and points were assigned to this activity as well. Further, participants were informed that task lists would be used to guide the weekly staff meetings. The management system was in place for four months prior to collecting baseline data. Goal setting and weekly meetings were consistent components across all phases as were weekly meetings to review task completion and upcoming goals.

During the baseline condition participants were required to set weekly task goals and fill in their task lists prior to the weekly staff meeting. Also, participants were required to assign a point value to each task. Performance data were entered into the task management database and the researcher generated reports and graphed the data on a weekly basis. No feedback graphs were shown to the participants during baseline condition. To ensure that participants were updating their task lists each week, “updating task list” was made a recurring task on each persons task list. If a participant failed to update their task list on time, the points assigned for that task were not earned.
Phase B (Group Feedback) included group feedback and daily accountability. Daily accountability required that each participant in the study report daily accomplishments to the researcher via email by a specified deadline (5:30 p.m. Monday through Friday). The participants were required to make daily reporting part of their weekly tasks as part of the Administration category so they would either lose points and/or report “not done” at the end of the week based on daily reporting performance. The researcher did not provide any feedback when daily reports were received. Group graphical feedback was delivered at the weekly staff meetings. Graphs illustrated task completion of all participants combined across the five task categories. The graphical feedback showed task completion for the current week as well as weeks since the beginning of baseline. Weekly data specified the cumulative tasks completed during that phase as well as the number of tasks completed during the previous week.

Before Phase B was implemented, participants were informed that graph feedback would be provided and they were shown example graphs. Participants were asked questions regarding the graphs to ensure that they understood how the graphs related to the performance of the group. Participants were also involved in determining the daily reporting deadline and method of reporting (email) to the researcher. The researcher kept track of who sent in their reports. If the researcher did not receive a report by the specified deadline, then the researcher prompted the participant once to send in their report.
Phase C (Group Feedback and Individual Feedback) included all components of Phase B with the addition of individual feedback. All prior conditions remained the same with the inclusion of individual feedback. Individual feedback was provided in tabular format showing total task completion and points earned for each person. Individual performance data showed only the previous week’s task completion. All participants’ individual feedback was publicly shown at weekly meetings.

Participants were informed ahead of time that individual feedback would be included in the weekly meetings and shown examples of what the feedback would look like. Participants were given an opportunity to revise the feedback to make it more relevant to them. One major revision was done to the individual feedback presentation and was in place for the beginning of Phase C.

Measurement

Task completion and points earned were measured on a weekly basis for a total of 27 weeks during baseline and 17 weeks during the two interventions. The primary measure in the study was the percent of the completed tasks marked “done” or “not done” on task lists. The secondary measure was the percentage of points earned. Group performance was measured to reflect the organization’s productivity, and individual performance was later included to measure individual productivity.
Reliability Procedure

Reliability was recorded in all phases of this study. To ensure the reliability of self-recorded data, 30% of all tasks reported “done” on task lists were selected randomly and verified every other week. The method used by the researcher to record reliability data was first selecting 30% of all completed tasks randomly and next checking the reported product of a task. Percent agreement was calculated using the following formula: Number of Agreements/Number of Agreements + Disagreements x 100%
CHAPTER III

RESULTS

Overall results of task completion by participants in this study show an increase in task completion from Baseline to Condition ‘C’ by 15%. The percentage of points earned shows an even greater increase by 19% from Baseline to Condition ‘C’. Figure 1 shows the percentage of the total tasks completed and points earned by all participants across Phase A (Baseline), Phase B (Group Feedback), and Phase C (Group Feedback + Individual Feedback).

![Percentage of Total Tasks Completed and Points Earned by Phase](image)

Figure 1. Percentage of Total Tasks Completed and Points Earned by Phase.

Figures 2-13 illustrate more detailed analyses of task completion and points earned. Figures 2 and 3 show the average number of tasks and points contracted per week by participants.
Figure 2. Average Number of Tasks Contracted per Week by all Participants by Phase.

Figure 3. Average Number of Points Contracted per Week by all Participants by Phase.

Task Completion by Task Category

The graph feedback data that were shown to participants during the study included data of the researchers (the Executive Director and a part time student). However, for the purposes of this study, their data have been removed, although data including researchers are included in Appendix A.
In general, the percentage of task completion increased most in Phase C of the intervention, when all components of the performance management system were combined. Table 1 shows the percentage of task completion for each task category by phase.

Table 1

<table>
<thead>
<tr>
<th>Task Category</th>
<th>Baseline</th>
<th>Grp Fdbck</th>
<th>Grp + Ind Fdbck</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>78%</td>
<td>83%</td>
<td>90%</td>
</tr>
<tr>
<td>Bookstore</td>
<td>73%</td>
<td>78%</td>
<td>87%</td>
</tr>
<tr>
<td>Convention</td>
<td>59%</td>
<td>50%</td>
<td>79%</td>
</tr>
<tr>
<td>Council</td>
<td>85%</td>
<td>85%</td>
<td>87%</td>
</tr>
<tr>
<td>Program</td>
<td>42%</td>
<td>73%</td>
<td>83%</td>
</tr>
</tbody>
</table>

Figures 4-8 show the percentage of tasks completed each week for Administration, Bookstore, Convention, Council, and Program categories for Phase A, baseline, Phase B, group feedback (Grp. Fdbck), and Phase C, group feedback plus individual feedback (Grp. Fdbck + Ind. Fdbck).
Figure 4. Percentage of Administration Tasks Completed.

Figure 5. Percentage of Bookstore Tasks Completed.

Figure 6. Percentage of Convention Tasks Completed.
Points Earned by Task Category

In general, the percentage of points earned increased most in Phase C of the intervention, when all components of the performance management system were combined. Table 2 shows the percentage of points earned for each task category by phases.
Table 2  
Percent of Points Earned for Each Task Category by Phase

<table>
<thead>
<tr>
<th>Task Category</th>
<th>Baseline</th>
<th>Grp Fdbck</th>
<th>Grp + Ind Fdbck</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>73%</td>
<td>73%</td>
<td>91%</td>
</tr>
<tr>
<td>Bookstore</td>
<td>86%</td>
<td>79%</td>
<td>97%</td>
</tr>
<tr>
<td>Convention</td>
<td>62%</td>
<td>71%</td>
<td>82%</td>
</tr>
<tr>
<td>Council</td>
<td>75%</td>
<td>84%</td>
<td>92%</td>
</tr>
<tr>
<td>Program</td>
<td>52%</td>
<td>90%</td>
<td>82%</td>
</tr>
</tbody>
</table>

Figures 9-13 show the percentage of points earned each week for Administration, Bookstore, Convention, Council, and Program categories for Phase A, baseline, Phase B, group feedback (Grp. Fdbck), and Phase C, group feedback plus individual feedback (Grp. Fdbck + Ind. Fdbck).

![Administration Points Earned](image)

Figure 9. Percentage of Administration Points Earned.
Figure 10. Percentage of Bookstore Points Earned.

Figure 11. Percentage of Convention Points Earned.

Figure 12. Percentage of Council Points Earned.
Figure 13. Percentage of Program Points Earned.
CHAPTER IV

DISCUSSION

A Review of the Results

The primary purpose of this study was to determine if a performance management system would increase the task completion in a non-profit association. The present investigation indicates that the number of completed tasks in relation to the overall organizational calendar increased 15% as result of the combination of goals, accountability, and feedback. The secondary purpose of the study was to determine if a performance management system would increase appropriate goal setting behaviors. The results show that the total number of points earned increased 19% from baseline to the final phase of the intervention. The results of points earned demonstrate that participants were learning to set their goals more accordingly throughout the course of the intervention.

Findings from this study demonstrate that the performance management system created a structure for clarifying work tasks and getting them accomplished in a timely manner. Further, the findings of the present study are consistent with reports in literature, which show that feedback alone is effective, but more effective when combined with goal setting (Balcazar et al., 1985-1986). By assigning points to tasks, participants learned to estimate their time on task as well as break down tasks into
more attainable goals, a characteristic of effective goal setting procedures (Locke &

Though overall results show an increase cumulative task completion across
each phase of the intervention, the increase is not as evident when analyzing task
categories individually. The following is a breakdown of the results of task
completion in each of the task categories.

Administration Tasks

Administration tasks completed increased 12% over baseline in the final phase
of the intervention. Results also show a reduced variability in task completion in this
category. An explanation of the consistent performance improvement in the
administration category is that tasks in this category are relatively small and simple in
nature. These findings are similar to Wilk and Redmon’s (1998) findings, the simple
tasks showed increased levels of performance based on the performance improvement
intervention, where complex tasks did not yield the same results.

Bookstore Tasks

Bookstore tasks completed increased 14% over baseline in the final phase of
the intervention. The variability can be explained because a part time student
employee was the main participant in the bookstore category. A low number of tasks
were entered for this category because the student only worked 10-20 hours a week.
While some data points show low performance, it was often that 1 of the 2 tasks were
completed. This issue was a confound with the measurement system in the study. To resolve such a confound, it is important to look at how many tasks there were to complete each week in the category.

Convention Tasks

Convention task completion increased 20% over baseline in the final phase of the intervention. This significant increase in performance can be attributed primarily to components of the management system, especially accountability and individual feedback combined.

Council Tasks

Council task completion increased only 2% over baseline. This small increase in performance is not surprising. As discussed earlier, the Board of Directors’ needs primarily drives the association and the deadlines for accomplishing council tasks were based on the council meetings schedule. Performance at baseline was already at 85%, which left little room for a large amount of performance improvement.

Program Tasks

Program tasks showed the largest increase in task completion, 41% over baseline in the final phase of the intervention. However, attributing results to the performance management system would be misleading. Performance improvement is mostly a result of the major technological developments in the programming area.
during the course of this intervention. Also, since programming or scheduling segments sometimes came from outside vendors (e.g., computer consultants and hotel managers, etc.), there were often delays. These delays made it impossible for the participants to perform the tasks that were planned for the Program category in those weeks.

Tasks Completed and Points Earned

The two dependent variables (tasks completed and points earned) showed predicted relationships. Most evidently seen in Figure 1, the percent of cumulative tasks completed and points earned were close in proximity across all phases of the study. Results also show that points earned decreased in variability in four of the five task categories (administration, bookstore, convention, council, and program). This decrease in variability of points contracted versus points earned can be attributed to participants estimating their time better. Data were not always consistent between the two dependent variables. To account for the discrepancy, it is important to notice that a participant could earn all the points contracted yet not complete a task.

Data Including Researchers

Interestingly, the data that includes the researcher and the manager do not significantly influence the results in task completion or points earned for the group (Appendix A). This shows that the performance management system had a fairly equal effect on the researchers’ work behaviors as it did the other participants.
Behavioral Contingencies

Behaviors that were critical to maintaining the management system and the contingencies that maintained the behaviors of participants are important to note. First, the product that maintained the system were the task lists, so the behaviors of filling out task lists were an integral component. The behaviors included specifying tasks to do for the week, assigning a point value to each task, categorizing tasks, prioritizing tasks and reporting on task completion.

Assigning a point value to a task made a small but cumulative effect on the completion of the task of “updating task list on time”, thereby serving as an immediate reinforcer. Assigning a point value to a task was also generating a rule for the performer, such as “this task should take no longer than four hours to complete”. Categorizing tasks appropriately as well as prioritizing tasks increased the relevance of the task to the organizational calendar. By prioritizing and categorizing tasks, participants learned to specify how the task fit into the big picture. Finally, the establishment of a deadline of having to report tasks and points by the staff meeting influenced the completion of that specific task under the avoidance of the loss of points and “not done” reported on individual feedback.

The second most important feature of the management system was the feedback graphs. The feedback graphs had various effects on the participants. Most markedly, it influenced the manager and researcher’s behaviors. The manager’s behavior of providing feedback was prompted by the sight of completed or not completed tasks both on task lists and feedback graphs. This kept the feedback
relevant to performance. A methodological problem however, was that there was no systematic method of providing verbal feedback to accompany the graphs, so it is difficult to tease out the actual effects that manager feedback had on the participant’s performance. A further effect of feedback graphs was the influence they had on the researcher’s behaviors of calculating data and generating weekly graphs. Participants and the manager expected weekly data therefore data were consistently managed. Similarly to Mawhinney et al (1998) conclusions, managing the performance of the managers maintained the intervention.

It is important to note that existing deadlines specified in the overall calendar of the organization might have increased the behaviors relevant to completing a task, instead of, or in addition to the performance management system. The overall deadlines were determined by organizational performance criteria. Deadlines, when paired with accountability, may have increased the aversiveness of talking about an uncompleted task.

**Methodological Weakness**

A major confound in this study occurred when emergency tasks were added to a person’s workload during the middle of the workweek. This would alter the participants’ weekly goals after the goals had already been established. For the purposes of measurement in this study, unfinished tasks were moved to the following week. However, to remain consistent with measurement, those tasks that were pushed to the following week because of added tasks were reported “not done” for the week
they are listed as a goal. However, this is how many organizations run and emphasizes the applied nature of the study.

Applied Implications

This study can be conducted in similar organizations. The weekly meetings were a significant component of the management system because feedback was provided but more importantly, it directed the work behaviors for the upcoming week. Goal setting procedures such as talk about the goals and the reasons for their importance prompt new work behaviors that were then reinforced and maintained by the contingencies of the rest of the management system components. It is critical to notice the number and complexity of the tasks that were to be completed to analyze feedback graphs effectively. Despite this added response, the measures of task completion for the group were clear indicators of organizational effectiveness.

This study was a step in the direction to apply OBM procedures to managing more complex tasks, as well as simple ones, by integrating a management system in an organization where each employee has different roles and many jobs to complete. The results of the current study have potentially important implications if they generalize to other participants and settings where a performer does many different tasks. If a performance management system improves task completion, then the additional time and efforts spent to build and maintain a management system would be worthwhile because it would contribute to organizational productivity.
There are several directions that future research in this area. One area might be to analyze productivity on another level by measuring the number of inputs and the number of outputs for a task. Another research area would be goal commitment. For instance, measuring the time between when a goal was supposed to be done as opposed to when it was actually completed. A final research suggestion is to develop teaming behaviors. Research on teaming behaviors can be observation driven. For instance, correct reporting, providing feedback, facilitating, and how feedback is received. Future studies in organizations with many complex tasks to accomplish would benefit the field of OBM, and would especially benefit organizations that struggle to manage a large number of tasks with limited resources.
Appendix A

Graphic Feedback Delivered to Participants at Weekly Meetings
Appendix B

Individual Feedback Delivered to Participants at Weekly Meetings
<table>
<thead>
<tr>
<th>Participant #1</th>
<th>Tasks Completed</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week of: 4/24-4/28</td>
<td>Administration 2/2</td>
<td>Week of: 4/24-4/28</td>
</tr>
<tr>
<td></td>
<td>Bookstore 4/4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Convention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Council</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Program</td>
<td></td>
</tr>
<tr>
<td>Weekly #</td>
<td>6/6</td>
<td>Weekly #</td>
</tr>
<tr>
<td>Weekly %</td>
<td>100%</td>
<td>Weekly %</td>
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<table>
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</tr>
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<tbody>
<tr>
<td></td>
<td>Bookstore</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Convention 1/3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Council 2/3</td>
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<tr>
<td></td>
<td>Program</td>
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</tr>
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<td>Weekly #</td>
<td>7/10</td>
<td>Weekly #</td>
</tr>
<tr>
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<td>Weekly %</td>
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<table>
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<th>Participant #3</th>
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<tbody>
<tr>
<td>Week of: 4/24-4/28</td>
<td>Administration 5/7</td>
<td>Week of: 4/24-4/28</td>
</tr>
<tr>
<td></td>
<td>Bookstore</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Convention 3/6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Council</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Program</td>
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<tr>
<td>Weekly #</td>
<td>8/15</td>
<td>Weekly #</td>
</tr>
<tr>
<td>Weekly %</td>
<td>53%</td>
<td>Weekly %</td>
</tr>
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<table>
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</thead>
<tbody>
<tr>
<td></td>
<td>Bookstore</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Convention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Council 5/6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Program</td>
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</tr>
<tr>
<td>Weekly #</td>
<td>9/10</td>
<td>Weekly #</td>
</tr>
<tr>
<td>Weekly %</td>
<td>90%</td>
<td>Weekly %</td>
</tr>
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</table>
Appendix C

Sample of Yearly Calendar of Organization (June-Sept)
### Deadlines

| JUNE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Admin |   |   |   |   |   |   |   |   |   | Payroll Taxes Deposited | Convention finances; staff payment; workshop payment |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bstore |   |   |   |   |   |   |   |   |   | Newsletter 2 to mailers, on TBA Insert | Bill ads from spring newsletter |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Conv |   |   |   |   |   |   |   |   |   | Mass email for SABA | Decorator & Airline Contracts |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Council |   |   |   |   |   |   |   |   |   | Letters minutes |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Program |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| JULY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Admin |   |   |   |   |   |   |   |   |   | Mass email Budget proposals/investment plan/endowment fund Mass Email Annual convention Web pages updated |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bstore |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Council |   |   |   |   |   |   |   |   |   | Financial Reports Site Visit |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Conv |   |   |   |   |   |   |   |   |   | General Schedule All database/CFP enhancements in place |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Program |   |   |   |   |   |   |   |   |   |   | A/V contract Call for Papers on Web/to Print |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pub. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AUG | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Admin |   |   |   |   |   |   |   |   |   | Financial Reports Payroll Taxes Deposited Update membership & student breakfast Web sites |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bstore |   |   |   |   |   |   |   |   |   |   | Mass email |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Conv |   |   |   |   |   |   |   |   |   | APA yrly. Report Database restructured & Mem. Recruitment on web |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Council |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Program |   |   |   |   |   |   |   |   |   |   |   | Venice Call for Papers mailed & on |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SEPT | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |   |
| Admin |   |   |   |   |   |   |   |   |   | Mass email |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bstore |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Conv. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Council |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Program |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
Appendix D

Categorization of Tasks for Task Lists
### Categorization of Tasks for Task Lists

<table>
<thead>
<tr>
<th>Administration</th>
<th>Bookstore</th>
<th>Convention</th>
<th>Council</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Includes:</strong></td>
<td><strong>Includes:</strong></td>
<td><strong>Includes:</strong></td>
<td><strong>Includes:</strong></td>
<td><strong>Includes:</strong></td>
</tr>
<tr>
<td>- Database entry</td>
<td>- Publisher negotiations</td>
<td>- Work with hotel</td>
<td>- All Affiliated Chapter &amp; SIG related work</td>
<td>- Scheduling</td>
</tr>
<tr>
<td>- Bookkeeping</td>
<td>- Book orders</td>
<td>- Organization of a convention related event</td>
<td>- Acceptance letters</td>
<td>-</td>
</tr>
<tr>
<td>- Task list updates</td>
<td>- Data entry for bookstore</td>
<td>- Convention contracts</td>
<td>- Formatting program book for publication and the web</td>
<td>-</td>
</tr>
<tr>
<td>- Phone calls</td>
<td>- International book donation program</td>
<td>- Continuing Education</td>
<td>- All work related to generating the Call for Papers</td>
<td>-</td>
</tr>
<tr>
<td>- Staff meetings</td>
<td>- System improvement s for bookstore</td>
<td>- Convention staff meetings</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- Filing</td>
<td>- Writing checks to publishers/closing the books</td>
<td>- International convention planning</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- Formatting for newsletters</td>
<td>- Training bookstore staff</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- Web editing</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- Writing job descriptions</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- Yearly appraisals</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
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</table>
Appendix E

Sample of a Task List
<table>
<thead>
<tr>
<th>Date</th>
<th>Task Description</th>
<th>Priority</th>
<th>Possiblept</th>
<th>Actualpt</th>
<th>Status</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/3/00</td>
<td>Edit newsletter article of MM.</td>
<td>Mediu</td>
<td>3</td>
<td>3</td>
<td>Done</td>
<td>article ready for newsletter</td>
</tr>
<tr>
<td>4/3/00</td>
<td>Draft information for Masaya to use in the SABA presid</td>
<td>High</td>
<td>2</td>
<td>2</td>
<td>Done</td>
<td>information to Maria to send to Sato.</td>
</tr>
<tr>
<td>4/3/00</td>
<td>Update task list on time.</td>
<td>High</td>
<td>0.5</td>
<td>0.5</td>
<td>Done</td>
<td>This list</td>
</tr>
<tr>
<td>4/3/00</td>
<td>mail brochure</td>
<td>High</td>
<td>3.5</td>
<td>3.5</td>
<td>Done</td>
<td>Brochures out in the Mail.</td>
</tr>
<tr>
<td>4/3/00</td>
<td>update Lori daily.</td>
<td>High</td>
<td>2.5</td>
<td>2</td>
<td>Not Done</td>
<td>e-mails sent</td>
</tr>
<tr>
<td></td>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>11.5</strong></td>
<td><strong>11</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Task Description</th>
<th>Priority</th>
<th>Possiblept</th>
<th>Actualpt</th>
<th>Status</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/3/00</td>
<td>Edit SABA and ABA agendas as per MM.</td>
<td>Mediu</td>
<td>2</td>
<td>2</td>
<td>Done</td>
<td>The agendas with MM's edits integrated.</td>
</tr>
<tr>
<td>4/3/00</td>
<td>Letter to the Bijous re: SABA awardee. Letter to the SA</td>
<td>High</td>
<td>3</td>
<td>3</td>
<td>Done</td>
<td>Letter in Malotts pending file on Wednesday.</td>
</tr>
<tr>
<td>4/3/00</td>
<td>Assemble 4 handbooks for incoming council members.</td>
<td>Mediu</td>
<td>2.5</td>
<td>2.5</td>
<td>Done</td>
<td>Books ready to be sent when we know the winners.</td>
</tr>
<tr>
<td>4/3/00</td>
<td>Assemble all of the documents for MM.s BACB.CE doc</td>
<td>High</td>
<td>3</td>
<td>3</td>
<td>Done</td>
<td>All the documents on MMs desk.</td>
</tr>
<tr>
<td>4/3/00</td>
<td>Integrate chapter and SIG reports as they arrive.</td>
<td>Mediu</td>
<td>4</td>
<td>4</td>
<td>Done</td>
<td>Summary document up-to-date and individual reports in file.</td>
</tr>
<tr>
<td>4/3/00</td>
<td>Draft letter for Carol Tavris</td>
<td>High</td>
<td>0.5</td>
<td>0.5</td>
<td>Done</td>
<td>letter in MMs pending file.</td>
</tr>
<tr>
<td>4/3/00</td>
<td>Draft outline of main points/decisions of the BACB.CE</td>
<td>High</td>
<td>3</td>
<td>3</td>
<td>Done</td>
<td>Draft in MMs pending box by Friday.</td>
</tr>
<tr>
<td></td>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>18</strong></td>
<td><strong>18</strong></td>
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</tr>
</tbody>
</table>
Appendix F

Approval Letter from the Human Subjects Institutional Review Board
Date: 15 December 1998

To: Dale Brethower, Principal Investigator  
Lori Diener, Student Investigator for thesis

From: Sylvia Culp, Chair

Re: HSIRB Project Number 98-09-10

This letter will serve as confirmation that your research project entitled "The Effects of a Management System on Convention Performance" has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 15 December 1999
Appendix G

Protocol Clearance from the Human Subjects Institutional Review Board
Western Michigan University
Department of Psychology

"The Effect of a Management System on Convention Performance"

Principal Investigator: Dale M. Brethower, Ph.D.

Student Investigator: Lori H. Diener

A thesis will be conducted at the Association for Behavior Analysis; the research project is entitled: The Effect of a Management System on Convention Performance. This research is intended to study the effects of a management system using task specification, graphical feedback, and weekly goal setting. This letter is an invitation to partake as a subject in this research. By consenting to participate in this study you will willingly share your weekly goals and previous week goal attainment with participating subjects and the researcher, who will also be a subject in the study. This research will begin December 1, 1998 and end after the 1999 Annual Convention in June of 1999.

If you choose to be a participant in this study, you will be expected to attend weekly meetings with the entire staff, generate a detailed specification of your job tasks on a weekly basis, and verbally report on completed and noncompleted tasks. The benefits of this research will be a reduction in last minute tasks associated specifically with the annual convention. An organized and systematic approach to pre-convention related work will minimize the amount of work on-site at the convention as well as post-convention.

As in all research, there may be unforeseen risks to the participant. If an accident or injury occurs, appropriate emergency measures will be taken: however, no compensation or treatment will be made available to the subject except as otherwise stated in this consent form.

I assure absolute confidentiality and privacy of your data in the conduct of this study and in possible presentations or publications. Data that is collected will be stored in Dale Brethower’s office in a locked file drawer for at least three years after the study is conducted. You can withdraw from the research at any time. Data collected prior to your withdrawal will not be included in the research.

You may refuse to allow your information to be included in the research by Lori Diener without any effect on grades or relationship with Western Michigan University and/or the Association for Behavior Analysis. If you have questions or concerns about this study, you may contact either Lori Diener at 616-381-9973 or Dale Brethower at 616-676-3485. You may also contact the Chair of Human Subjects Institutional Review Board at 616-387-8293 or the Vice President for Research at 616-387-8298 with any concerns that you have. Your signature below indicates that you know the purpose and requirements of this study and that you agree to participate.

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. Subjects should not sign this document if the corner does not show a stamped date and signature.

I agree to participate in this study.

Signature

Date

Individual Obtaining Consent

Date
BIBLIOGRAPHY


