

USING TASK CLARIFICATION, GRAPHIC FEEDBACK, AND  
VERBAL FEEDBACK TO INCREASE CLOSING-TASK  
COMPLETION IN A PRIVATELY OWNED RESTAURANT

JOHN AUSTIN, NIC L. WEATHERLY, AND NICOLE E. GRAVINA

WESTERN MICHIGAN UNIVERSITY

An informant functional assessment was used to evaluate closing-task completion by servers and dishwashers at a restaurant. Based on the functional assessment results, an intervention consisting of task clarification, posted graphic feedback, and verbal feedback was implemented and evaluated with a multiple baseline design across two groups of employees. Results showed an increase of 15% and 38% in task completion for the two groups.

DESCRIPTORS: task clarification, graphic feedback, verbal feedback, organizational behavior management, informant assessment

Inadequately kept work areas have long plagued employers as one of the primary causes of employee-related injury. In 2002, a nationwide survey reported that food and drink service establishments experience 4.6 nonfatal on-the-job injuries every year per 100 full-time employees (U.S. Department of Labor, 2002). The failure to complete necessary cleaning tasks correctly was reported by the U.S. Department of Labor survey to cause 28% of restaurant injuries in 1994. In 1995, roughly 15% of lost-time injuries nationwide resulted from falling objects hitting workers (U.S. Department of Labor). Properly stacking dishes is a crucial safety procedure that was seldom completed correctly at the restaurant involved in this study, spurring the present organizational behavior management (OBM) study.

The food service industry has benefited from the use of OBM techniques. For example, LaFleur and Hyten (1995) used performance management techniques to improve the performance of a banquet set-up staff at a hotel. Anderson, Crowell, Hantula, and Siroky (1988) used task clarification and graphic feedback to dramatically improve cleanliness at a university

tavern. Many OBM studies share similar intervention components, target behaviors, and settings. However, each organizational context is unique, and relevant contextual features should be assessed and evaluated when developing an organizational intervention. An assessment procedure can help to identify the causes of performance problems and aid in developing more practical and effective interventions. The purpose of the present study was to use the Performance Diagnostic Checklist (PDC; Austin, 2000) to assess an organizational performance concern and develop an effective intervention to improve completion of closing tasks.

## METHOD

### *Participants and Setting*

The study was conducted at a fine dining restaurant in Michigan that has been operating for over 30 years. The participants consisted of 7 dishwashers and 11 servers. All of the dishwashers were men whose average age was 20. The service staff consisted of 6 men and 5 women, whose average age was 23. The length of time that each employee had worked at the restaurant varied from 1 week to over 4 years.

During each shift, 1 employee was designated as being in charge of closing. It was that employee's job to delegate closing tasks and

Address correspondence to John Austin, Department of Psychology, Western Michigan University, Kalamazoo, Michigan 49008 (e-mail: john.austin@wmich.edu).  
doi: 10.1901/jaba.2005.159-03

ensure that the group completed the tasks for the evening. For consistency, data were excluded from shifts in which the designated closer was an employee who was not part of the normal work staff and therefore was not exposed to the interventions and who worked only a single shift during the course of the study. Data were also excluded when employees who were hired after the start of the study were designated as the closer. Including these data in the analysis would represent a threat to internal validity, because performances of employees who were effective but very infrequent closers could be differentially represented across the phases of the experiment.

#### *Data Collection*

Checklists detailing each cleaning task were created for both the server area (25 items) and dishwasher area (26 items). The dependent variable was the percentage of checklist tasks completed for each shift by the group. These checklists were used by trained data collectors who recorded completed and uncompleted tasks by looking at the finished products produced by each task. Data were collected on varying mornings 3 days per week during baseline and approximately 5 days per week during the intervention. Data collection occurred while the restaurant was closed and none of the employees in the study were present. Mean total agreement of task completion, assessed for 70% of sessions, was 98% (range, 95% to 100%).

#### *Functional Assessment*

The PDC (Austin, 2000) was used to identify variables in four areas—antecedents, knowledge and skills, equipment and processes, and consequences—that could hinder, help to increase, or maintain task completion. One of the researchers conducted the assessment with the restaurant owner serving as the informant or through visual inspection of the work areas for specific items on the PDC. The assessment results indicated that workers were unaware of

the exact closing duties. To increase the employees' awareness of closing duties, checklists were developed and placed in the immediate work environment. Also, the assessment revealed that there were few, if any, consequences delivered for completing closing tasks. Therefore, a verbal and graphic feedback procedure was implemented by management.

#### *Procedure and Design*

A multiple baseline design with a limited component analysis across groups of employees was used to evaluate the effects of the intervention. Baseline data were collected for 7 weeks for servers and 8 weeks for dishwashers.

*Intervention.* The independent variable was an intervention package consisting of a posted checklist (i.e., task clarification), verbal feedback from management, and posted graphic feedback. The checklists were posted in the back room by the clean dish rack and over the server preparation table. Verbal feedback was given by managers to each employee group at a short meeting before the work shift on Fridays and Saturdays, as well as sporadically throughout the week. Verbal feedback consisted of managers informing employees about the checklist items that had been performed particularly well and items that needed improvement. Graphs depicting group performance were presented weekly on a sheet of paper next to the checklists.

The intervention phase lasted 2.5 weeks for the dishwashers and 3.5 weeks for the servers. The servers' checklist and verbal feedback intervention components were implemented 1 week before those of the dishwashers, and graphic feedback was implemented simultaneously for servers and dishwashers at the start of the dishwashers' intervention.

## RESULTS AND DISCUSSION

The upper panel of Figure 1 displays the percentage of server tasks completed for each condition. Task completion averaged 75% during baseline ( $SD = 5.7\%$ ; range, 60% to

81%). Average task completion immediately increased to 87% during intervention and then rose to 90% with the addition of graphic feedback ( $SD = 3.7\%$ ; range, 85% to 96%). The lower panel of Figure 1 displays the percentage of dishwasher tasks completed in each condition. Task completion averaged 49% during baseline ( $SD = 4.8\%$ ; range, 45% to 62%) and rose to 87% ( $SD = 5.2\%$ ; range, 76% to 94%) during intervention.

The results of the study suggest that the PDC (Austin, 2000) led to the development of an effective intervention package that substantially increased task completion for both groups of

employees. This study used a limited component analysis (i.e., for the servers only). Task clarification and verbal feedback were implemented first, and graphic feedback was later added. Server performance showed a slight increase when the graphic feedback was added. The small increase may have been a result of a ceiling effect. The servers were already performing at a fairly high level when the graphic feedback was implemented. This analysis would have been stronger if it had been conducted with both groups.

One limitation of the study is that the data-collection procedures made it impossible to

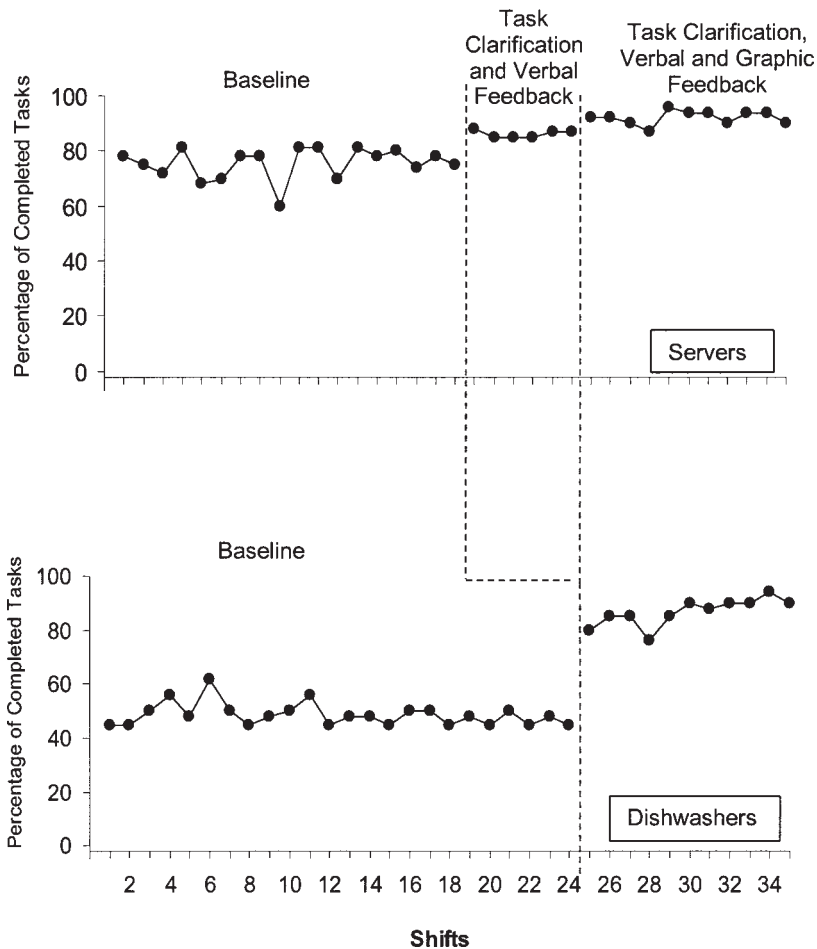


Figure 1. Percentage of closing tasks completed in full per shift for both the servers (top panel) and the dishwashers (bottom panel).

ascertain which employees represented the exact source of performance improvement. Anecdotal reports, however, suggest that the behavior of the closer was most influenced by the intervention. Future research may more closely examine issues related to changing the behavior of work groups in organizations.

In conclusion, management expressed satisfaction with the ease and the effectiveness of the intervention. Nine months after data collection ended, the task checklists had been revised and reposted. One of the three managers was reportedly still regularly delivering verbal feedback regarding closing-task completion, but graphic feedback had not been delivered since the study's conclusion.

## REFERENCES

- Anderson, D. C., Crowell, C. R., Hantula, D. A., & Siroky, L. M. (1988). Task clarification and individual performance posting for improving cleaning in a student-managed university bar. *Journal of Organizational Behavior Management*, 9, 523-548.
- Austin, J. (2000). Performance analysis and performance diagnostics. In J. Austin & J. E. Carr (Eds.), *Handbook of applied behavior analysis* (pp. 321-349). Reno, NV: Context Press.
- LaFleur, T., & Hyten, C. (1995). Improving the quality of hotel banquet staff performance. *Journal of Organizational Behavior Management*, 15, 69-93.
- United States Department of Labor (2002). *Survey of occupational injuries and illnesses*. Retrieved January 14, 2004, from <http://www.bls.gov/iif/oshsum.htm>

*Received October 28, 2003*

*Final acceptance October 19, 2004*

*Action Editor, Iser DeLeon*