

*USING SELF-MANAGEMENT PROCEDURES TO
IMPROVE THE PRODUCTIVITY OF ADULTS WITH
DEVELOPMENTAL DISABILITIES IN
A COMPETITIVE EMPLOYMENT SETTING*

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This study describes the use of self-management procedures, similar to those proposed by Lagomarcino, Hughes, and Rusch (1989), to improve the productivity of 2 women with mild mental retardation who worked in restaurants. Substantial improvements were observed as a function of treatment, and the procedures were deemed acceptable by the participants, their coworkers, and their supervisors.

DESCRIPTORS: self-management, mental retardation, supported employment

Self-management procedures have been successfully used for training adults with developmental disabilities in supported competitive employment settings (e.g., Lagomarcino, Hughes, & Rusch, 1989). The present study extends the use of self-management procedures to an ecologically valid competitive employment situation; demonstrates that, after training, participants could use such procedures with minimal staff involvement; and shows that such procedures were deemed to be acceptable (socially valid) by participants, their coworkers, and their supervisors.

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METHOD

Participants and Setting

Two women (JB and RD, 35 and 25 years old, respectively) were chosen to participate in the study based on their supervisors' concern with poor work productivity. They worked 2- to 4-hr daily shifts in the kitchen and dining room of two restaurants in the same chain; RD earned \$4.25 per hour (minimum wage) and JB earned \$3.15 per hour (subminimum wage due to low productivity). Both participants scored 68 on the full-scale WAIS-R intelligence test.

Procedures

Design and data collection. A multiple baseline across behaviors experimental design was used. Throughout the study, productivity was assessed by comparing participants' productivity with that of their non-disabled coworkers (see Breshears & Allen, 1990). For both participants, data on each of four target behaviors were collected by direct observation during randomly selected shifts during an 8-month period, although not all tasks were performed on all of those

shifts. Tasks included weighing and bagging individual servings of various frozen foods (e.g., chicken crisps, Q-fries), setting tables in the dining room, and rolling silverware into napkins. A second observer recorded data 12 times for RD and 15 times for JB. Each observer recorded the amount of time required to complete the targeted task, and interobserver agreement was calculated by dividing the smaller recorded time by the larger. Mean interobserver agreement was 96%, with a range of 83% to 100%.

This study was conducted in three phases (a more complete description is available from the first author):

Preintervention (baseline). During baseline, the trainer (senior author) regularly interacted with participants, conducted task analyses of jobs that they regularly performed (which revealed that they could perform those tasks independently), and verified that low productivity was evident for both of them.

Intervention. After performance appeared to be relatively stable during the baseline condition, the trainer discussed with each participant the importance of work productivity and possible strategies for improving it. Both participants concluded that a timer (a device frequently used in both restaurants) could be used to monitor speed of performance and agreed to use such a device. Each participant selected objects and activities from a reinforcer inventory (e.g., lunch with a supervisor, restaurant "money" used by all employees at "auctions" to purchase cassette tapes, movie tickets, etc.) that she would receive contingent on completing a task before the time designated for that task expired, as indicated by the timer's buzzer. During training sessions conducted in the workplace, the participants were taught to self-instruct, self-monitor, and self-reward while performing a task that was already being performed at an acceptable speed. The trainer modeled appropriate use of the timer, self-

descriptive verbalizations, and data recording, and then verbally prompted the participants to behave appropriately. Acceptable times for particular tasks were written in notebooks for which the participants were solely responsible. They carried the notebooks throughout their work shift and recorded each task completion within the designated time. The importance of accurate recording was emphasized, and participants were rewarded (with praise and occasional money from the trainer) for accurate recording.

After initial training, each participant was taught to choose an acceptable time for a task that she performed too slowly. The designated time was based on the participant's speed in performing that task during baseline. As in training, acceptable times were recorded in participants' notebooks; they then recorded whether a task was completed in acceptable time and were rewarded for each task so completed. Subsequently, the intervention was arranged for three additional tasks, with the schedule of reinforcement for rapid task completion reduced from fixed-ratio 1 to variable-ratio (VR) 2. Intervention integrity was assessed by the primary observer, who recorded that participants consistently carried notebooks, set timers, and recorded data.

Maintenance. During this phase, reinforcement for rapid task completion was delivered under a VR 5 schedule by the participants' supervisors (not the trainer, as in the intervention phase). Maintenance data were recorded during the 2 months immediately following intervention.

RESULTS AND DISCUSSION

Figure 1 shows that performance on a given task characteristically increased during intervention relative to baseline and that the enhanced performance continued during the maintenance condition. There were, how-

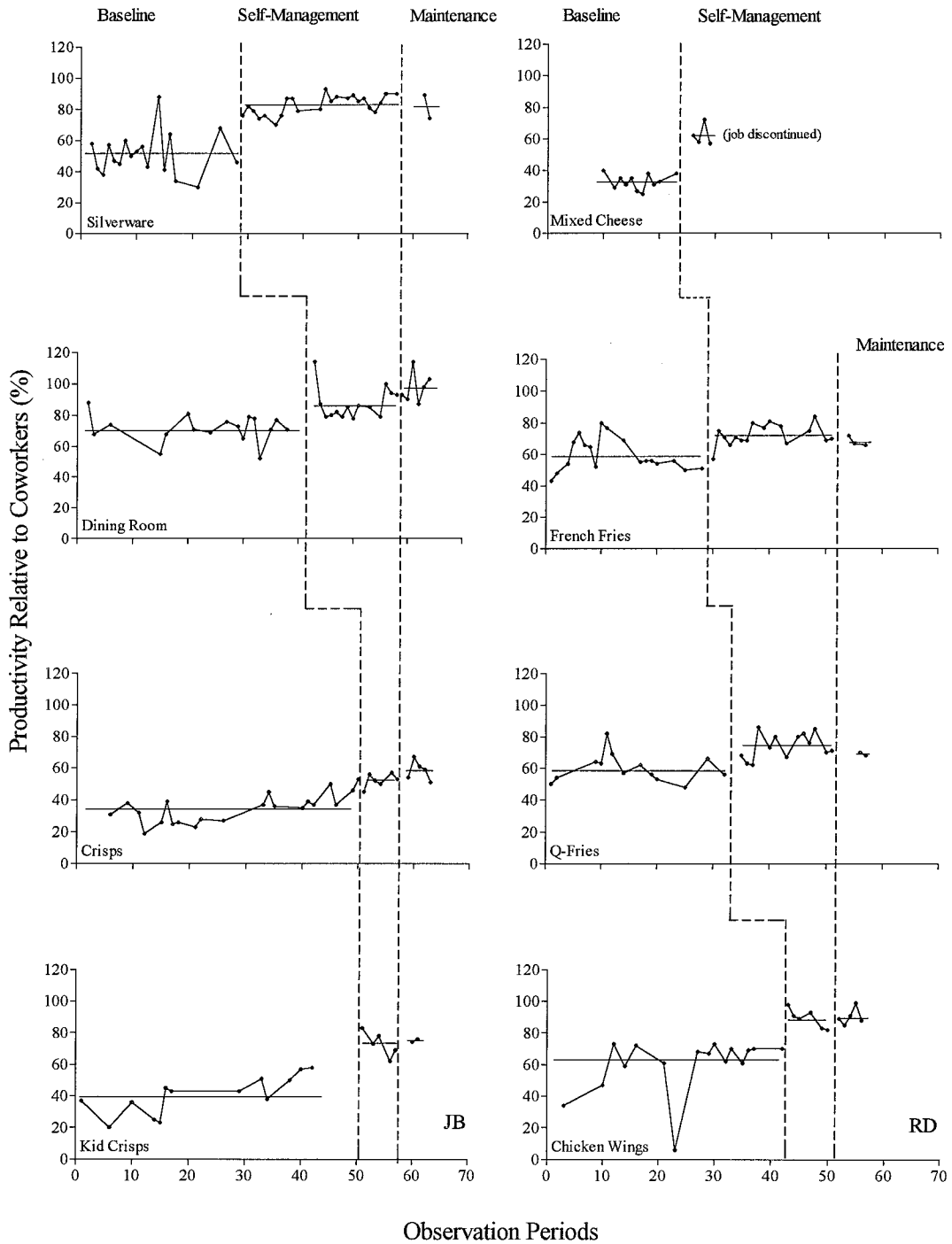


Figure 1. Work productivity of participants expressed relative to the average productivity of their nondisabled coworkers under all experimental conditions. A value of 100% indicates that the participant completed the task as rapidly as did her nondisabled coworkers. Values higher than 100% indicate that the participant worked faster than her nondisabled coworkers, whereas values below 100% indicate that she worked slower. Horizontal lines indicate means.

ever, ascending trends during baseline for some tasks, and the magnitude of change from baseline to treatment was relatively small in some cases. Moreover, although the participants often performed almost as well as their nondisabled peers (e.g., at or above 75% productivity), fully competitive levels of performance (i.e., 100% productivity) were not consistently obtained. These aspects of the data do not obscure the presence of a treatment effect, but they do raise questions regarding the potency of the intervention. Developing self-management procedures that engender fully competitive performance is a reasonable goal for future research.

Another goal for research is to reduce further the general level of staff support and the use of staff-arranged rewards. It can be argued that management of behavior through the use of external contingencies mediated by another person is not actual self-management, mitigates normalcy, and should be

eliminated if possible. Be that as it may, the participants, their coworkers, and their supervisors reported that the procedures used in the present study were acceptable and did not deleteriously affect them. The participants benefited from the procedures, insofar as both kept jobs that they were at risk of losing because of poor performance. JB's enhanced performance also earned her a raise (to minimum wage), which provides evidence of the social significance of the results.

REFERENCES

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