

## **The Effect of Implicit and Explicit Rules on Customer Greeting and Productivity in a Retail Organization**

REBECCA A. JOHNSON, RAMONA HOUMANFAR, and  
GREGORY S. SMITH

*University of Nevada, Reno, Reno, Nevada, USA*

*The purpose of this study was to determine the effects of presenting organizational information through implicit and explicit rules on sales-related target behaviors in a retail setting. Results indicated that when organizational information was presented in a specific form, productivity was increased and maintained longer than when presented in other forms. The data provided by secret shoppers generally resembled the findings of the data collected in the experiment.*

**KEYWORDS** *environmental ambiguity, explicit rule, implicit rule, rumor, communication, organizational effectiveness, productivity*

Worker performance is not only governed by direct contingencies found in the workplace but is also at least partly under the control of rules (Agnew & Redmon, 1992; Malott, 1992; Malott, Shimamura, & Malott, 1992; Rachlin, 1992). For instance, Baum (1994) asserted that more effective control over workers' behavior can be achieved by contingencies combined with rules, rather than by contingencies alone.

A rule is defined as a contingency-specifying stimulus that details the relation between an antecedent, response, and consequence (Catania, Shimoff, & Matthews, 1989; Malott, 1992; Schlinger & Blakely, 1987). Rules may therefore be understood as a verbal description of a three-term (or four- and five-term) contingency. However, the type of rule and history of the employee with regard to the type of rule can have a bearing on the behavior of the employee. Pelaez and Moreno (1998) outlined characteristics of rules that may have an impact on the employee's response. According to

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Address correspondence to Ramona Houmanfar, Department of Psychology, University of Nevada, Reno, Mailstop 296, Reno, NV 89557, USA. E-mail: ramonah@unr.edu

their taxonomy, rules may be explicit or implicit, simple or complex, accurate or inaccurate, and can vary in terms of their source. Explicit rules detail the contingency in terms of antecedents, behaviors, and their consequences unambiguously, while implicit rules leave out some of the details with respect to the contingency. The complexity of a rule varies as a function of the extent to which the rule refers to dimensions or characteristics of stimuli (such as color, shape, texture, etc.) and higher-order relations (relations between two stimuli such as bigger than, brighter than, sharing of class membership, etc.), which in turn can increase the difficulty for the rule in acquiring stimulus control of behavior. Accurate rules correspond to their description of the contingencies, while inaccurate rules are incorrect statements of the contingency. Lastly, the source of a rule may be oneself or another person or entity within the organization.

Goulding (2002) examined the effect of implicit and explicit rules on completion of sanitation tasks by workers in a human service setting. Following baseline, a rumor (i.e., a vocal statement from the supervisor) was initiated among participants. For example, one worker was told that "I have heard through the grapevine that [director of the building] will be checking the toilets to see if they are being cleaned. I think this came from [CEO]." This was expressed to a randomly selected participant by the supervisor. The participants at the setting then completed a questionnaire to reveal the spread of the rumor and the self-generation of rules (i.e., the generation of rules by the participants regarding the contingencies). Next, a memo from the director of the facility explicitly specified a rule relating to the completion of sanitation tasks by the participants. The dependent variables in this study were associated with the number of sites adequately sanitized by the participants. The results demonstrated that group productivity increased more immediately and was maintained longer when information was presented in the explicit and documented form of communication (rule), as opposed to when it was presented as a rumor. Moreover, when presented as a rumor, some employees engaged in the self-generation of rules.

The present study evaluated the effects of presenting implicit (i.e., rumor) and explicit (i.e., memo) rules on sales-related target behaviors in a retail clothing store. More specifically, the impact of these two types of communication on customer greeting, productivity, and off-task behaviors was examined. This experiment served to systematically replicate Goulding (2002).

## METHOD

### Participants and Setting

Participants included seven full-time and part-time employees at a specialty retail store. All were female ranging in age from 17–26. The participants were employed at the store from a period of 8 months up to 7 years. The

store location was approximately 1500 sq ft and contained only one entrance for customers. The service section, where participants conducted their responsibilities, consisted of two primary areas: (a) the counter area, where the computer was located and items were purchased; and (b) the sales floor area, where customers shopped and participants provided assistance to customers.

The primary responsibilities of the participants in the sales area consisted of (a) greeting customers when they entered the store; (b) procuring merchandise from out-of-reach areas for the customers (e.g., using a pole to get down a bathing suit displayed high up); (c) unlocking fitting rooms for customers; (d) obtaining shoes for customers (shoes were displayed in front but were located in the back room); (e) merchandising (e.g., reconfiguring wall space when new merchandise arrived); and (f) straightening (e.g., refolding t-shirts) all sales items.

The duties of the participants working behind the counter area included (a) ringing up customer sales (i.e., removing sensors from merchandise and processing the sale); (b) handling customer questions (e.g., "Do you carry brand X?"); (c) assisting customers with all merchandise displayed behind and in the counter cases (e.g., hats, stickers, sunglasses, and accessories); (d) putting away product (e.g., items returned to counter from dressing rooms) and new items received in shipment; (e) merchandising (e.g., reorganizing cases and wall); and (f) handling any additional tasks assigned from management (e.g., making price changes on a specific item, printing tags, checking inventory quantities, running reports, etc.). The participants were not formally assigned to specific jobs as it was expected that they be engaged in some type of activity (i.e., being productive) at all times.

### Materials

A video camera, including a voice recorder, was installed in the work setting approximately 9 months prior to this study. The camera recorded the entire counter area and the front half of the sales floor area and was used to collect data throughout the study. Other materials included (a) data sheets used for recording greeting, productivity, and off-task behavior; (b) a pretyped memo that specified a rule; (c) three participant surveys (rumor condition questionnaire, rule condition questionnaire, and a function questionnaire); and (d) a secret shopper survey.

### Independent Variables

The independent variables were two types of rule statements: Implicit/Rumor (i.e., rumor) or Explicit/Rule (i.e., memo). The Implicit/Rumor was a rumor such as "I've noticed some suspicious shoppers in our store and I wouldn't put it past Kip to have customers looking at our greeting and

productivity," which was communicated to a randomly selected participant by the store manager. The Explicit/Rule was a memo (from the CEO of the company) specifying a rule associated with the dependent variables.

### Dependent Variables

The dependent variables were customer greeting, productivity, and off-task behavior. In addition, two types of customer surveys (customer satisfaction and secret shopper) were conducted randomly during each phase of the study.

### OPERATIONAL DEFINITIONS

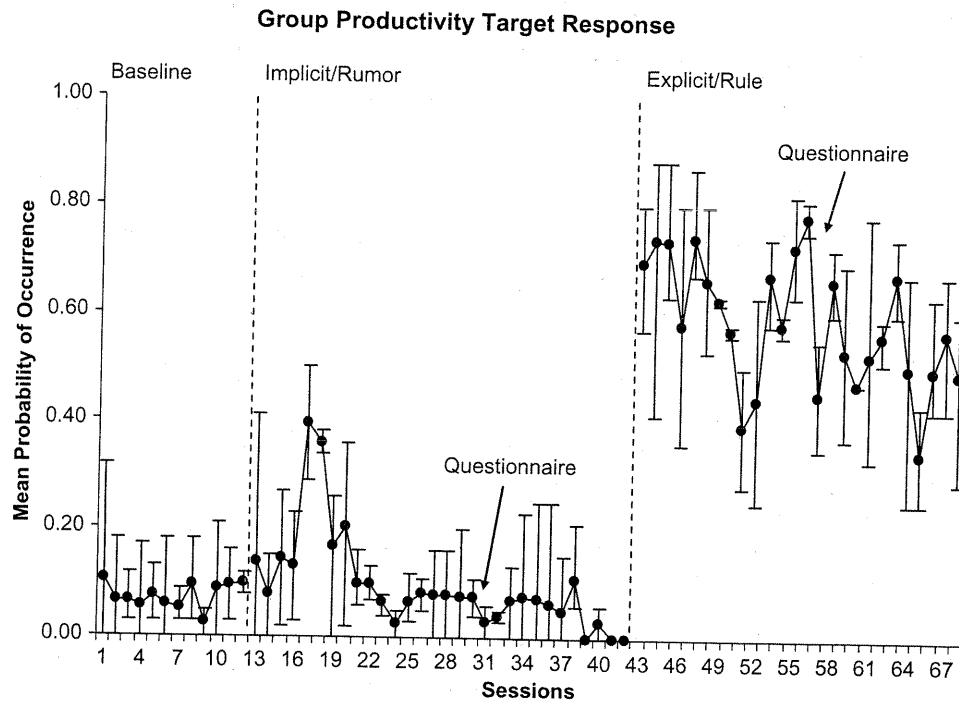
Greeting was measured by recording the occurrences of participants' greeting responses based on opportunities to respond (i.e., how many of the customers that entered the store were greeted). To be counted as a greeting, the participant must have initiated the opening word or phrase within the first 5 s of the customer entering the store. If the customer and participant greeted each other simultaneously, the interaction was counted as an occurrence. Productivity was defined as participants engaging in work-related activities in previously described service areas without a prompt from a manager, customer, or another employee. Off-task behavior was defined as a participant standing around and talking and/or not engaging in any work-related activities.

### Interobserver Agreement

A second observer independently coded 30% of all phases throughout the study. Interobserver agreement was computed on an exact agreement basis of 1-min intervals for each hour-long session. Each 1-min interval box on the data sheet was marked with a check mark if there was an occurrence and left blank if there was not an occurrence of each target behavior. An agreement was scored if both observers scored the same alternatives (i.e., both occurrences and nonoccurrences) for each interval. Interobserver agreement was calculated by dividing the number of agreements by the sum of agreements plus disagreements, and multiplying the result by 100%. Interobserver agreement was 94% (range = 80–100), 92% (range = 80–99), and 88% (range = 80–98) for greeting, productivity, and off-task behaviors, respectively.

### Design and Procedure

An ABC (i.e., Baseline, Implicit/Rumor, Explicit/Rule) design was utilized to determine the impact of implicit versus explicit rules on employee behavior. Twelve 1-hr sessions were randomly conducted every two weeks throughout the duration of the study.



**FIGURE 1** Mean probability of occurrence for productivity target response (range brackets added).

### Implicit/Rumor Condition

Once baseline (A) levels of performance were observed, the Implicit/Rumor condition (B) was implemented. At the beginning of this phase, the store manager initiated a rumor by randomly selecting a participant and describing, ambiguously, a change in the work content. Note that this form of communication was considered implicit, as it did not explicitly specify a contingent relationship between a specific behavior and the antecedent or consequent events of that behavior. Once productivity measures returned to baseline levels and were found to be stable (defined as three consecutive data points that did not depart more than 15% from the mean of all previous sessions of that phase), participants were asked to complete a questionnaire to assess procedural integrity and dissemination of the rumor. Upon completion of the questionnaire (see Figure 1) and before the next phase (C) was implemented, data continued to be collected until stability was observed.

### Explicit/Rule Condition

At the beginning of the Explicit/Rule condition, a memo from the CEO of the company was distributed among participants, which explicitly specified

a rule associated with the dependent variables. The memo stated: "I have recruited secret shoppers to visit our store on a random basis and record your performance in areas of customer greeting (e.g., saying "Hello" to customers who enter the store within 5 s) and productivity (e.g., customer service, shipment, merchandising, etc.). This means that a high level of customer greeting and productivity should be occurring at all times. Your performance in these areas will be included in a group evaluation that will be provided in the form of group feedback." Once measures stabilized (criterion defined above), a questionnaire was delivered to assess that the participants received and read the memo.

### Data Collection and Analysis

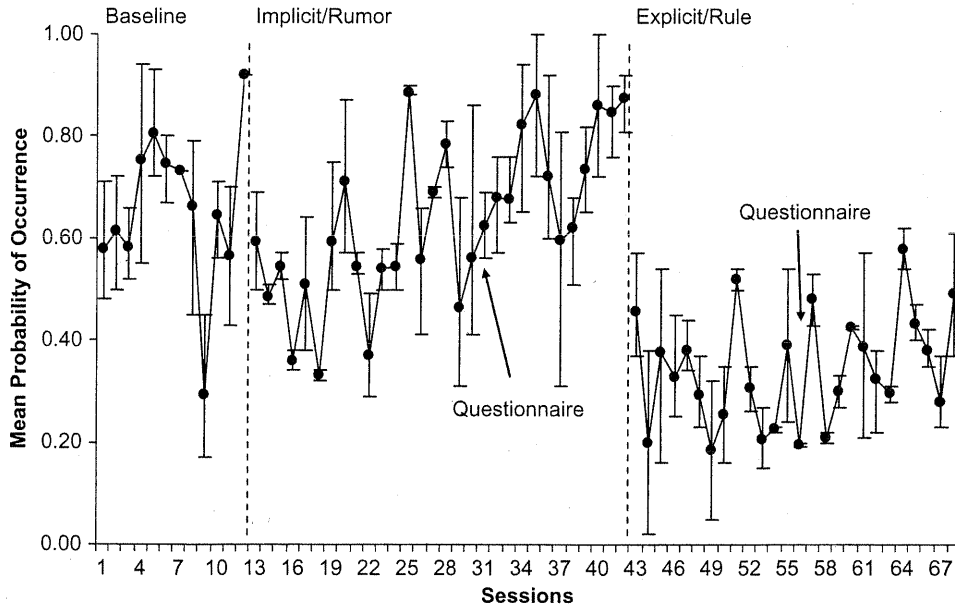
The occurrence and nonoccurrence of the target behaviors were scored by observers viewing the videotapes. A partial interval scoring procedure was used with 1-min intervals. Each individual participant was included in at least four of the sessions during each condition throughout the study. The occurrence of greeting responses based on the opportunity to respond was recorded at the individual level and analyzed at the group level; the number of customers greeted by participants was divided by the total number of customers entering the store during the session. Data are presented in group format at the request of the Institutional Review Board (IRB), which oversaw the implementation of this study. Range brackets around group averages were used to indicate intersubject variability in responding.

## RESULTS AND DISCUSSION

Figure 1 depicts the mean probability of occurrence of productivity measures across each phase. Figure 2 represents probability of off-task responses at the group level. Figure 3 displays mean probability of occurrence of customer greeting measures. During the baseline phase, the probability of productivity and greeting target responses was low, at .09 and .03, respectively, while off-task behaviors were high, at .66. With the introduction of the Rumor/Implicit condition, the overall level of productivity increased slightly to .11. Greeting responses increased from .03 to .07. This slight bump in probability was due to an initial increase in responding during the first half of the phase, followed by a return to baseline levels during the second half. Similarly, the implementation of the rumor during the Implicit/Rumor condition appeared to have a slight impact on off-task behaviors, decreasing from .66 to .62.

The most notable effects on all target behaviors were observed in the Explicit/Rule condition. During this condition, productivity measures increased

## Group Off-Task Target Response



**FIGURE 2** Mean probability of occurrence for off-task target response (range brackets added).

substantially over the previous Implicit/Rumor condition from .11 to .60; greeting responses increased in probability from .07 to .44; off-task behaviors were half as likely to occur (decline from .62 to .34). With regard to self-generation of rules (collected through distribution of two questionnaires), the results of this study were similar to the ones reported by Goulding (2002). In that regard, a majority of the participants (2 out of the 3) who heard the rumor engaged in self-generation of rules. For example, two rules generated during the implicit rumor condition were “it’s something professionals do” and “always be working to your advantage and greeting customers.” These data suggest that participants’ self-generated rules did not correspond with what was stated in the rumor. On the other hand, during the explicit rule condition five out of six participants generated accurate rules. Some of the self-generated rules during the explicit rule condition included the following: “this is the basic greeting rule within 5 seconds,” “at this job we always try to have positive greeting,” and “greet customers upon arrival and help them as necessary.”

### Secret Shoppers

As shown in Figure 4, productive behaviors were recorded by the secret shoppers as 33%, 39%, and 72% of the observations during each condition,

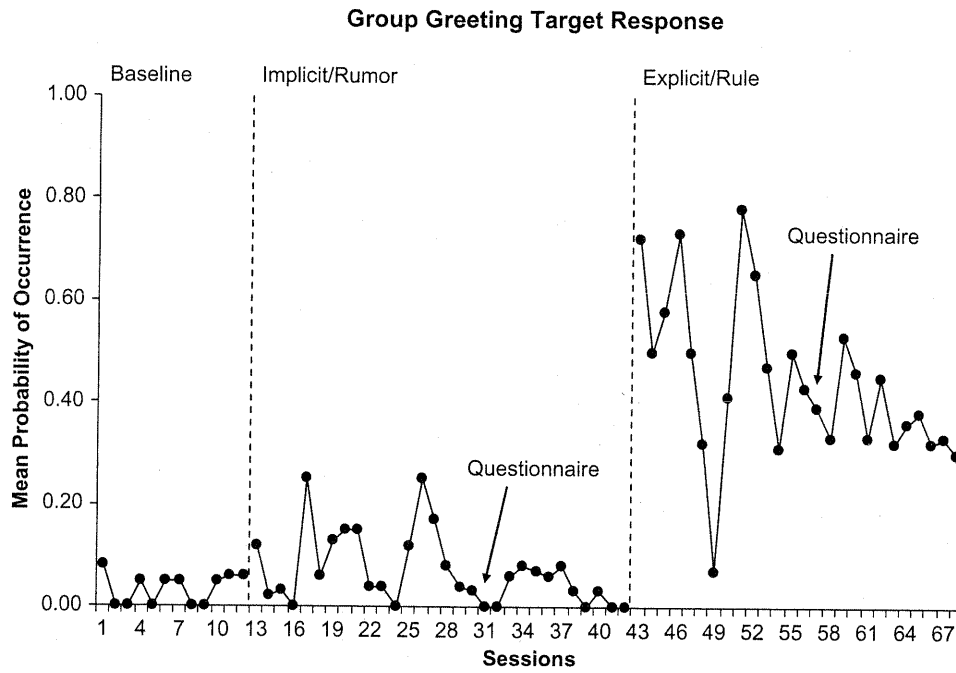


FIGURE 3 Mean probability of occurrence for customer greeting target response.

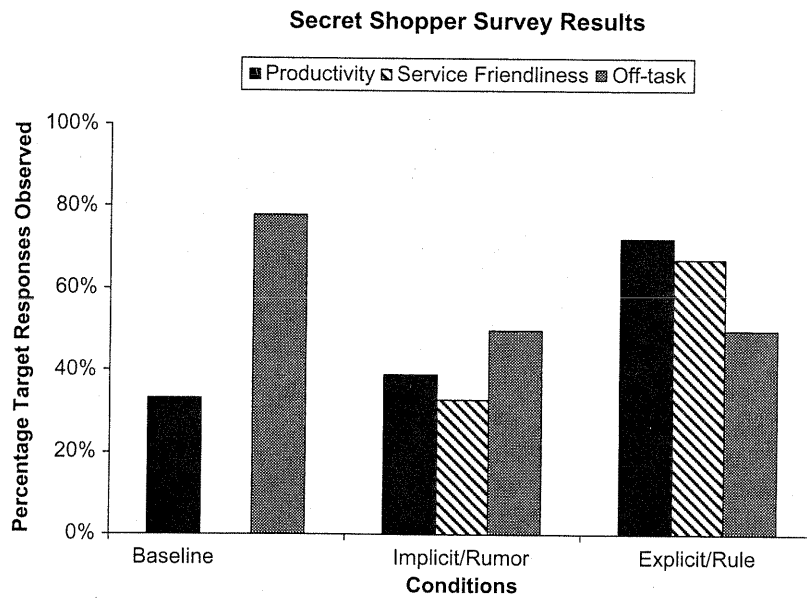


FIGURE 4 Secret shopper survey results for all target responses.

respectively. Greeting responses were rated by secret shoppers as 0%, 33%, and 67% of the observations across conditions. Lastly, off-task behaviors were observed by secret shoppers in 78%, 50%, and 50% of the observations for each phase. The results provided by secret shoppers resembled the video observations collected in the experiment.

In general, our results demonstrate a systematic replication of Goulding (2002). When presented with an explicit rule describing contingencies operating with respect to employees' sales-related behaviors, these behaviors improved substantially, compared to only a modest increase in the responses during the Implicit/Rumor condition. In addition, during the Implicit/Rumor condition, target behaviors did not maintain over time (i.e., productivity levels returned to original baseline levels). In contrast to Goulding (2002), in which target behaviors eventually returned to baseline levels of performance even during the Explicit/Rule condition, our results demonstrate a longer maintenance of target performances following the explicit rule condition. This sustained effect may have been a product of participant and customer interaction that may have allowed for the influence of natural contingencies (e.g., social reinforcement provided by shoppers) on target behaviors. This type of social influence was absent in Goulding's study because participants worked with inanimate objects. Nevertheless, the sustained effect of explicit when compared to implicit rule (within a similar time interval) in this study further substantiates the assertion that the more explicit the rule, the longer its effect would be on listener's behavior (Houmanfar & Johnson, 2003; Pelaez & Moreno, 1998). In addition, the potential of negative financial effect associated with return to baseline level of performance in this phase prevented the continuation of our experimental manipulation.

In terms of management styles of communication, participants reported that they preferred the explicit rule presentation over the implicit rumor presentation of information. Moreover, the self-generations of rules were reported for both implicit and explicit conditions, yet the generated rules were more accurate during the explicit condition. These findings were consistent with results found by Goulding (2002). As suggested by Houmanfar and Johnson (2003), when there is incomplete or inaccurate information regarding work-related matters, employees are more likely to be off-task and less likely to be productive.

Although the present results demonstrated the predicted change in target behaviors, there were limitations associated with the implementation of the present study. With regard to experimental control, the results of this study should be viewed with caution, since a return to baseline level of performance was not achieved following the removal of the explicit rule during the Explicit/Rule condition and neither of the rule phases was replicated. However, this study was a replication of a previous study (Goulding, 2002) in which similar results using similar methodology were obtained with

different participants in different settings. In short, replication across studies enhanced the validity of the results that would otherwise be examined through multiple baseline manipulation. Moreover, the potential of adverse financial effect generated by more than one return to baseline level of performance was avoided by our discontinuation of the experimental manipulation. Therefore, this limitation, which is an inherent part of field experimentation, should be taken into account in the design of future methodologies.

A sequence effect cannot be ruled out as Explicit/Rule condition followed the Implicit/Rumor for all participants. Rumor may distort stimulus control over time due to inaccurate or incomplete information (i.e., rules), as suggested by Houmanfar and Johnson (2003). The distortion and reduction of stimulus control (effect of rule) over behavior was observed during the Implicit/Rumor condition, as the brief increases in target responses began to decrease in the latter half of the phase. It is difficult to withdraw the Implicit/Rumor condition, but a loss or weakening of stimulus control over responding was observed as time passed. Experimental control in future studies may be enhanced through the utilization of other experimental designs such as multiple baseline, counterbalanced reversal, or use of a control group site.

In conclusion, this study sheds light on which methods of organizational communication may be more effective than others within particular contexts. When instructions are presented in different ways they may impact performance differently, thus it is important that managers be aware of how their verbal behavior may influence the behavior of their employees. For instance, the variability of responding that is promoted by incomplete instruction may hinder or promote effective performance, depending on the organizational characteristics. For example, in some organizations (e.g., SONY, Microsoft, Intel), where creativity and problem solving are the basis for business success, variability of responding and hence utilization of heuristic rules by employees may be a more optimal set of conditions for managers to promote, rather than those conditions occasioned by the use of explicit and complete rules. On the other hand, incomplete rules may have negative implications for management and employees in situations where the consistent recurrence of certain performance patterns (e.g., customer greeting, merchandising, manufacturing) is required and the variability in responding generated by incomplete rules may have a negative impact on productivity.

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## RESEARCH REPORTS

# Improving the Quality of Staff and Participant Interaction in an Acquired Brain Injury Organization

JOHN M. GUERCIO and MARK R. DIXON

*Southern Illinois University Center for Comprehensive Services Personal Intervention Program,  
Carbondale, Illinois, USA*

*Weekly observations of direct-care staff in a facility for persons with brain injury yielded less than optimal interactional style with facility residents. Following an observational baseline, staff were asked to self-rate a 15-min video sample of their interaction behavior with participants on their unit. They were then asked to compare their self-ratings to those of a supervisor, as well as view a video exemplar of appropriate positive interaction behavior. Elements of their interactional style were highlighted and specific feedback was provided on how to improve their performance. Interaction style was then reevaluated via an unobtrusive observer and yielded positive gains for all participants. Subsequent on-the-job feedback sustained performance gains.*

**KEYWORDS** *video modeling, staff training, performance management, brain injury*

A major concern in human services settings is the quality of direct-care staff performance, including staff interactions with the residents. A great deal of research has been conducted to determine practical and effective methods for improving direct-care staff behavior. Verbal and written feedback have been used frequently because they are relatively cost-effective means for intervention (e.g., Reid & Parsons, 1995). Another approach has been to

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John Guercio is now affiliated with TouchPoint Autism Services, St. Louis, Missouri, USA.  
Address correspondence to Dr. John M. Guercio, TouchPoint Autism Services, 1101 Olivette Executive Pkwy., St. Louis, MO 63132, USA. E-mail: john.guercio@touchpointautism.org