

**PARTICIPANT INFORMATION: POSTER**

The Impact of Feedback and Individual/Group  
Computer Monitoring on Work Effort

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**Abstract**

Computer monitoring without feedback was found to increase work effort on a simple, data entry task but, also resulted in greater stress. Without monitoring, feedback (especially negative) yielded greater effort. Performance measurement at the work group level was associated with less perceived pressure and more positive work experiences.

## The Impact of Feedback and Individual/Group Computer Monitoring on Work Effort

Feedback on task performance has been reported to be a major factor in improving learning, motivation, and performance (Ilgen, Fisher, & Taylor, 1979). How employees receive and respond to feedback from supervisors often plays an important role in determining the degree to which they successfully perform their tasks.

Recent technological advances in computers and developments in computer software have enabled supervisors in many organizations to have moment-to-moment, performance summary information available whenever they want. While this provides the opportunity for giving performance feedback to employees in a manner rarely ever possible in most organizations, how will this feedback be received and responded to if employees feel their privacy is being invaded by this electronic surveillance and consequently, experience greater stress at work?

The present study was designed to investigate the potential effects of computer monitoring, at an individual or work group level, and evaluative performance feedback on the amount of effort expended by subjects engaged in a data entry task. Two hundred and thirteen subjects were randomly assigned to conditions. They were instructed that they would be monitored by their supervisor (actually present on the other side of the large room) through his or her terminal or that they would not be monitored by their supervisor but would instead have their entered data summarized at their own terminal, and informed whether their data were being aggregated at an individual or work group level. At the half-way point of their task, they were provided with no feedback, negative evaluative feedback, or positive evaluative feedback.

*Work effort.* When subjects were electronically monitored by their supervisors and did not receive feedback from them, they worked harder (i.e., attempted to enter more data) than their nonmonitored counterparts (see Table 1). On the other hand nonmonitored subjects who received negative feedback subsequently tried hardest of all ( $F=7.12, p<.01$ ).

*Subjects' Perceptions.* Subjects receiving (randomly assigned) negative feedback reported that they performed less well on the data entry task ( $F=3.21, p<.05$ ) and generalized this negative feeling to how well they perform this type of task in general ( $F=4.39, p<.05$ ).

Subjects whose data were aggregated at the work group level: characterized their work atmosphere as more positive ( $F=4.53, p<.05$ ) and pleasant ( $F=5.47, p<.05$ ); reported that they tried harder to do well ( $F=4.47, p<.05$ ); perceived any feedback they received as more positive ( $F=5.94, p<.05$ ); and were generally more satisfied with their performance ( $F=3.97, p<.05$ ). They also felt less pressure from their supervisor ( $F=4.86, p<.05$ ), as did nonmonitored subjects more generally ( $F=25.93, p<.01$ ). Monitored subjects who received feedback from their supervisor experienced the greatest pressure ( $F=6.29, p<.01$ ).

In sum, electronic monitoring of workers (without providing feedback) increases work effort but, the cost is added stress for these workers. Monitoring combined with feedback yields greater pressure and somewhat lower effort. When monitoring is not used, feedback (especially negative feedback) produces greater effort. Subjects whose performance was measured at the work group level felt less pressure and report the most positive work experience.

Table 1

Mean Number of Second-half of Session Data Entry Attempts as a  
Function of Computer Monitoring and Feedback Level

Presence of Monitoring	Level of Feedback		
	No Feedback	Negative Feedback	Positive Feedback
Not Monitored	158.2	192.7	174.3
Computer Monitored	184.7	169.7	161.3

Reference

Elgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on behavior in organizations. Journal of Applied Psychology, 64, 349-361.