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**Attitudinal Effects of Employee  
Participation Groups: How Strong, How  
Persistent?**

**CEO Publication  
G 88-10 (123)**

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May 1994

Presented at the Academy of Management Annual Meeting, Anaheim, CA, August 1988.

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ATTITUDINAL EFFECTS OF EMPLOYEE PARTICIPATION GROUPS:  
HOW STRONG, HOW PERSISTENT?

ABSTRACT

This study examines attitudes of 823 employees who are current members, former members, or never members of employee participation groups. Current participants are more positive on some variables than other respondents, but there are no differences on attitudinal outcomes, and former participants show almost no differences from those who never participated.



Participation group programs, including quality circles and many variants, are the most popular form of participative management in U.S. history. Thousands of companies have adopted these programs, and hundreds of thousands of workers have been members (Lawler, 1986; Lawler & Mohrman, 1985). Although the quality and quantity of research on participation group programs is increasing, there still is relatively little theory or empirical research to help practitioners anticipate likely outcomes and design effective programs (see Ledford, Lawler, & Mohrman, in press, for a recent review).

Participation groups are small groups of employees who meet regularly to identify and solve problems they encounter at work. The groups are parallel structures (Stein and Kanter, 1980), existing side-by-side normal bureaucratic organizations. As such, they perform functions (e.g., developing suggestions for change) that traditional structures perform poorly. Typically, only a minority of employees are members of the groups at any time. The groups are temporary rather than permanent, although they may survive for months or years. During the lifetime of the program, groups may be formed and dissolved continually. Thus, in organizations with mature programs, some employees are current members of participation groups, others are former members, and others never have been members. Specific group design characteristics, such as membership, goals, and training, vary considerably across programs.

From the standpoint of participation theory and research (Lawler, 1986; Locke & Schweiger, 1979; Miller & Monge, 1986), participation group programs are based on some suspect assumptions. One assumption is that a limited form of employee participation, that is special group meetings for perhaps an hour per week, will lead to positive changes in attitudes. There are reports of positive attitudinal effects of employee participation groups (e.g., Marks, Mirvis, Hackett, & Grady, 1986; Nurick, 1985), although overall the evidence

is mixed (Ledford et al., in press). A second questionable assumption is that the attitudes of former group members will remain high once the group disbands. Since only a minority of the workforce are members at any time in most programs, this assumption is critical. Yet it seems more likely that direct involvement is required in order to realize fully the attitudinal effects of participation, as Mohrman & Novelli (1985) found.

Mohrman & Novelli (1985) suggest two possible causal explanations for why employee participation groups might lead to improvements in employee attitudes. Alternative 1 is that the groups make good suggestions which are implemented, the changes in turn lead to organizational improvements such as improvements in job characteristics, finally leading to changes in attitudinal outcomes such as satisfaction. Thus, group suggestions are the key factor. Alternative 2 is that the act of participation leads directly to changes in attitudinal variables such as job variety and relations with supervisors, in turn leading to changes in attitudinal outcomes such as job satisfaction; thus direct participation is the key factor. Obviously, both causal chains are filled with intervening variables and contingencies, which suggests how difficult it is for participation groups to enhance employee attitudes.

These considerations and the prior literature suggest five hypotheses that are tested in this paper. The first hypothesis is consistent with participation theory generally, and with causal Alternative 2 above. The first and second hypothesis examine attitudes toward the intervention.

Hypotheses 1: Current members of participation groups will have more favorable attitudes toward the participation group program than former members of participation groups or those who have never been members.

Alternative 2 above and prior research by Mohrman and Novelli (1985) suggest a second hypothesis.

Hypothesis 2: Former members of participation groups will not have more favorable attitudes toward the participation group program than those who

have never been members.

Hypothesis 3 concerns the group experience of current and former members.

Hypotheses 4 and 5 distinguish organizational attitudes and attitudinal outcomes from the attitudes toward the intervention in Hypotheses 1 and 2.

Hypothesis 3: Current members of participation groups will have more favorable attitudes toward their participation group than former members.

Hypothesis 4: Current members of participation groups will have more favorable organizational attitudes (attitudes toward the job, work group, rewards, supervision, and outcomes) than former members or those who have never been members.

Hypothesis 5: Former members of participation groups will not have more favorable organizational attitudes than those who have never been members.

## METHODS

### Study Background

The study was jointly defined by a university research team and a corporate task force. Data were collected from nine organizational units of a large multi-divisional corporation. All of the units designed and manufactured electronic components or systems. Several of the plants were dependent on military or other government contracts, while others were in market-competitive businesses. The sites varied in their economic health.

All nine research sites used a parallel group approach to participation. However, the particular design features used varied widely among and even within research sites (see Mohrman & Ledford, 1984; Mohrman & Ledford, 1985). For example, the sites differed in the composition of the groups and in their use of training and external facilitation. The participation programs ranged in age from six months to ten years.

The research team spent four to ten days at each location. With the help of a local study group at each site, questionnaire, interview, and archival data were collected. Semi-structured interviews were conducted and readily



available archival data about the participation programs were collected at each site. The interview and archival data provided a qualitative perspective complementary to the questionnaire data reported in this paper.

#### Respondents

Questionnaire data were collected from 904 respondents. This represented a sample of from three percent to 100 percent of employees at the research sites. Sample sizes varied depending on the size of the site, its willingness to commit employee time to the study, and its intended uses of the results. In cases where less than 100 percent of employees were included in the sample, random or random stratified samples of employees were invited to complete the questionnaire. Response rates ranged from 70 percent to 94 percent. The number of respondents per site ranged from 17 to 266.

The sample was well distributed across demographic categories. The average age of respondents was 40 years (standard deviation was 12 years). Average length of employment was 10 years (s.d. = 8 years). Twenty seven percent had a high school education or less, 42 percent had some college or technical school beyond high school, and 30 percent had college or graduate degrees. In terms of organizational status, 46 percent were hourly, 24 percent held engineering or technical positions, 18 percent held clerical or administrative positions, six percent were first-line supervisors, and six percent were middle or top managers at the site.

Participation status was determined by self-report for 823, or 91 percent, of the respondents. Of these, 424 (52 percent) were currently members of one or more participation groups, 111 (13 percent) previously had been but currently were not members of a participation group, and 288 (35 percent) had never been members of a participation group.

#### Measures

Due to the number of variables included in the analyses presented in this paper, a full discussion of the questionnaire measures is not possible here. Information about some of the measures is provided in Mohrman and Ledford (1984, 1985). A listing of items, scales, descriptive statistics, and reliabilities of the questionnaire measures is available from the authors.

Briefly, several classes of variables were measured through the study. First, attitudes toward the participation program were assessed for all respondents, using a number of measures designed specifically for the study. Development of these measures was guided by a model of participation group effectiveness (Mohrman and Ledford, 1984, 1985). The model suggests that the outcomes of participation groups and programs depend on how well the groups function and achieve integration with their organizational context. Group functioning and contextual integration, in turn, are a function of group design characteristics. A series of program outcomes was assessed (global ratings of effectiveness, perceived impact on company outcomes such as quality, impact on interpersonal outcomes such as supervisory relations, impact on extrinsic employee outcomes such as availability of tools and equipment, impact on intrinsic employee outcomes such as chances for participation, and program permanence). Four contextual integration variables were measured: communication about the participation group program, perceived support for the program by the respondent and key stakeholder groups, recognition of group accomplishments, and representation of nonmembers' views. Most design characteristics were assessed objectively and are not relevant to the analyses reported in this study. However, the group design characteristic of perceived opportunity for group membership was measured via the survey.

A second class of variables, attitudes toward the participation group, was measured only for current and former members of participation groups. Two

participation group outcomes, perceived accomplishments and frustration, were measured. One contextual integration variable, management responsiveness, was assessed. Four group functioning variables were measured: goal clarity, intensity of effort, group problem solving skill, and conflict.

Third, organizational attitudes were measured for all respondents. Variables included job and work group characteristics (such as variety and teamwork); attitudes toward the reward system (such as suggestion system satisfaction); attitudes toward supervision (such as production orientation and participation); and attitudinal outcomes (including job satisfaction and turnover desire). Most of the organizational attitudes measures were derived from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1983). A number of variables used were abbreviated but demonstrably reliable versions of MOAQ measures.

#### Analysis

A one-way analysis of variance procedure was performed for each variable that was asked of all respondents, using group membership condition (never a member of a participation group, former member of a participation group, or current member of a participation group) as the independent variable. When the ANOVA result was significant, a conservative contrast test (the Scheffe test, at the .05 level) was performed to indicate whether specific pairs of conditions were significantly different. T-tests (one-tailed, separate variance estimate) were performed to compare attitudes of former and current participants toward their participation group.

#### RESULTS

The results show some very clear patterns. Table 1 reports ANOVA and contrast test results for participation group program variables. The F ratio

is significant for all eleven measures of group design characteristics, contextual integration variables, and perceived program outcomes. The Scheffe

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Insert Table 1 About Here  
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tests indicate that for nine of the variables (all those except interpersonal climate outcomes and representation of nonmember views), current participants are more positive about the participation group program than those who never participated. In two cases (perceived membership opportunities and communication about the program), the differences between groups are especially dramatic--exceeding one point on a seven-point scale. For seven of eleven variables, the Scheffe tests indicate that attitudes of current participants are significantly more favorable than those of former participants. These results provide strong support for Hypothesis 1.

Table 1 also provides considerable support for Hypothesis 2. Former members of participation groups were more favorable toward the participation group program than those who had never been members on only one of eleven variables (perceived membership opportunities). The trend on other variables is mixed and most differences are very small in absolute terms.

It is also notable that the perceived impact of the participation group programs was quite limited, even by current participants. The four measures of impact, for example, were measured on a seven-point scale ranging from "strong negative impact" to "strong positive impact." The average responses for all three groups on all four measures range between 4 ("no impact") and 5 ("slight positive impact").

Hypothesis 3 is supported by the T-test results reported in Table 2. Current participants have more favorable attitudes toward their group than former participants on five of seven measures (goal clarity, intensity of

effort, management responsiveness, accomplishments, and frustration). The trend is supportive of the hypothesis for group skill and conflict, although

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Insert Table 2 About Here  
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the differences are small and are not statistically significant.

Hypothesis 4 receives little support from the data reported in Table 3. The attitudes of current members are not significantly different from those who never were members on any of 24 variables, which measure job and work group characteristics, the reward system, supervision, and attitudinal outcomes such as job satisfaction. Attitudes of current members are

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Insert Table 3 About Here  
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significantly more favorable than those of former members only on three supervisory measures: subordinate relations, problem solving, and participation. Interestingly, all of these variables are particularly relevant to the participation group intervention.

Hypothesis 5 receives a good deal of support from Table 3. The only significant difference between former members and those who were never members is in satisfaction with the suggestion system, which is significantly lower for former participants. Our interviews suggest that this is because some former participants, seeing extensive publicity about the cost savings their group's suggestions have generated, believe they deserve a share of the gains.

#### DISCUSSION

This study has the weaknesses and strengths of any cross-sectional study. Causality cannot be established from these data alone, and it is possible that there are systematic differences between employees who volunteer for group membership and those who do not. The data reported here also shed little

light on design choices that would lead to more effective programs (but see Mohrman & Ledford, 1985). However, the data are consistent with those from some (but not all) longitudinal case studies that have found limited or no attitudinal effects of such programs (see Ledford et al., in press). The data reported here represent many more organizational units, subjects, and program designs than are likely to be represented by any longitudinal study, thus aiding generalizability of findings from case studies. This study also is supported by another Rafaeli's (1985) cross-sectional study.

The data reported here reveal modest positive effects of participation group programs as well as an Achilles heel of these interventions. As long as employees remain members of participation groups, they support the program and believe that it has some benefits for the organization and employees alike. However, participation group membership in fact has only a small impact on organizational attitudes and outcomes, and this impact is limited to organizational variables (such as supervisory behavior) that are directly relevant to the intervention. Even this impact disappears completely after employees cease to be group members.

The decay of positive employee affect suggests a severe problem with limiting group membership to small minority of employees, as is typical in participation group programs. Since only current participants show any effect from the program, participation group programs usually will not lead to attitudinal changes for employees in general. This pattern bodes ill for the long-term viability of the parallel organization model, and indeed feeds dynamics that lead to the early death of many participation group programs (Lawler & Mohrman, 1985).

## REFERENCES

- Cammann, C., Fichman, M., Jenkins, G. D. Jr., & Klesh, J. R. 1983. Assessing the attitudes and perceptions of organizational members. In S. E. Seashore, E. E. Lawler III, P. H. Mirvis, & C. Cammann (Eds.), Assessing organizational change: A guide to methods, measures, and practices. New York: Wiley.
- Lawler, E. E. III. 1986. High involvement management. San Francisco: Jossey-Bass.
- Lawler, E. E. III, & Mohrman, S. A. 1985 (January/February). Quality circles after the fad. Harvard Business Review, 65-71.
- Ledford, G. E. Jr., Lawler, E. E. III, & Mohrman, S. A. In press. The quality circle and its variations. In J. P. Campbell (Ed.), Frontiers in industrial/organizational psychology -- Volume II: Individual and group productivity in organizations. San Francisco: Jossey-Bass.
- Locke, E., & Schweiger, D. 1979. Participation in decision-making: One more look. In B. Staw (Ed.), Research in Organization Behavior, Vol. 1. Greenwich, CT: JAI Press.
- Marks, M. L., Mirvis, P. H., Hackett, E. J., & Grady, J. F. Jr. 1986. Employee participation in a quality circle program: Impact on quality of work life, productivity, and absenteeism. Journal of Applied Psychology, 71:61-69.
- Miller, K. L., & Monge, P. R. 1986. Participation, satisfaction, and productivity: A meta-analytic review. Academy of Management Journal, 29: 727-753.
- Mohrman, S. A., & Ledford, G. E. Jr. 1984. The design of employee participation groups: Guidelines based on empirical research. Center for Effective Organizations Publication No. 84-14/62. Los Angeles: University of Southern California.
- Mohrman, S. A., & Ledford, G. E. Jr. 1985. The design and use of effective employee participation groups. Human Resource Management, 24:413-428.
- Mohrman, S. A., & Novelli, L. Jr. 1985. Beyond testimonials: Learning from a quality circles programme. Journal of Occupational Behavior, 6: 93-110.
- Nurick, A. J. 1985. Participation in organizational change: The TVA experiment. New York: Praeger.
- Rafaeli, A. 1985. Quality circles and employee attitudes. Personnel Psychology, 38: 603-615.
- Stein, B. A., & Kanter, R. M. 1980. Building the parallel organization: Creating mechanisms for permanent quality of work life. Journal of Applied Behavioral Science, 16:371-385.

TABLE 1  
 One-way Analysis of Variance Results:  
 Attitudes Toward the Participation Program

Variable	Group Means by Group Membership Condition:			F Ratio	Scheffe Results
	Never (N=288)	Former (N=111)	Current (N=424)		
<u>Group Design Characteristics</u>					
1. Membership Opportunities	4.30	4.69	5.29	42.96****	1<2&3, 2<3
<u>Contextual Integration Variables</u>					
1. Communication About Program	3.45	3.57	4.52	41.27****	1&2<3
2. Perceived Support for Program	5.04	5.12	5.31	8.55***	1<3
3. Recognition of Groups	4.32	4.23	4.75	14.31****	1&2<3
4. Representation of Nonmembers	4.15	3.88	4.34	5.18**	2<3
<u>Perceived Program Outcomes</u>					
1. Effectiveness	4.28	4.25	4.76	13.88****	1&2<3
2. Impact: Company Outcomes	4.45	4.50	4.73	7.43***	1<3
3. Impact: Inter-personal Outcomes	4.42	4.36	4.61	3.50*	--
4. Impact: Intrinsic Employee Outcomes	4.43	4.48	4.80	15.56****	1&2<3
5. Impact: Extrinsic Employee Outcomes	4.40	4.49	4.64	7.62***	1<3
6. Program Permanence	4.16	4.23	4.50	10.55****	1&2<3

1 All variables measured on a seven-point scale.

2 Significance levels: \* = .05    \*\* = .01    \*\*\* = .001    \*\*\*\* = .0001



TABLE 2  
 T-Test Results: Attitudes Toward the Participation Group  
 (Former versus Current Participants)

Variable	Group Membership:		T-Value/ 1-Tail Signif.
	Former (N=111)	Current (N=424)	
<u>Group Functioning</u>			
1. Goal Clarity	4.45	4.78	-2.11*
2. Intensity of Effort	4.49	4.83	-2.59**
3. Group Skill	4.24	4.46	-1.25
4. Conflict	3.52	3.38	1.01
<u>Contextual Inte- gration Variables</u>			
1. Management Responsiveness	4.40	4.78	-2.89**
<u>Group Outcomes</u>			
1. Accomplishments	4.42	4.88	-3.20***
2. Frustration	4.84	4.57	1.98*

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1 All variables measured on a seven-point scale.

2 Significance levels: \* = .05    \*\* = .01    \*\*\* = .001

TABLE 3  
One-way Analysis of Variance Results: Organizational Attitudes

Variable	Group Means by Group Membership Condition:			F Ratio	Scheffe Results
	Never (N=288)	Former (N=111)	Current (N=424)		
<u>Job and Work Group Characteristics</u>					
1. Variety	5.11	5.29	5.33	2.19	--
2. Autonomy	5.24	5.16	5.30	0.58	--
3. Feedback	4.69	4.50	4.81	2.22	--
4. Teamwork	4.57	4.50	4.81	0.11	--
5. Resources	4.74	4.40	4.70	2.68	--
<u>Reward System</u>					
1. Security	4.60	4.78	4.55	1.10	--
2. Promotion	3.98	4.01	4.26	2.52	--
3. Recognition	4.06	3.73	4.07	1.51	--
4. Suggestion System Satisfaction	3.84	3.39	3.62	4.01*	1>2
5. Pay Equity	4.13	4.17	4.25	0.50	--
<u>Supervision</u>					
1. Production Orientation	4.98	4.92	5.01	0.24	--
2. Control of Work	5.34	5.04	5.17	2.48	--
3. Subordinate Relations	4.90	4.64	5.00	2.94*	2<3
4. Problem Solving	4.77	4.44	4.89	4.01**	2<3
5. Consideration	5.07	4.78	5.14	2.52	--
6. Participation	4.77	4.53	4.93	3.21*	2<3
<u>Attitudinal Outcomes</u>					
1. Job Satisfaction	5.57	5.56	5.56	0.01	--
2. Job Involvement	5.82	6.03	5.96	1.81	--
3. Organization Involvement	5.99	6.01	6.13	1.82	--
4. Intrinsic Satisfaction	5.13	5.01	5.17	0.66	--
5. Turnover Desire	2.71	2.58	2.54	1.16	--
6. Transfer Desire	4.21	4.33	4.57	2.91	--
7. Trust	4.45	4.17	4.35	1.82	--
8. Human Concern	4.55	4.63	4.51	0.22	--

1 All variables measured on a seven-point scale.

2 Significance levels: \* = .05 \*\* = .01