The purpose of this study was to assess any changes in cognitions and attitudes in relation to Organizational Development (OD) goals and procedures that may have occurred among the 65 participants who attended an initial training event. The goals of this event were to establish widespread understanding and favorable attitudes about organization development, to identify intergroup problems (especially across hierarchical levels) that would provide the content and motivation for subsequent communication skill training and problem-solving, and to establish norms for collaboration within and across the various participating role-groups. Questionnaires were administered to these participants and to a matched comparison group from two nearby school districts during the spring terms in 1968, 1969, and 1970. Although interpretations of the data are not unequivocal, the authors are convinced that experiencing the imaging procedure so early in the total OD design did predispose most of the key line personnel to look favorably on subsequent OD training for the entire district. (Authors/WM)
PSYCHOLOGICAL EFFECTS OF TRAINING IN ORGANIZATION DEVELOPMENT ON SCHOOL DISTRICT PERSONNEL IN KEY LINE POSITIONS

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The data described here were collected as part of a two and one-half year organization development (OD) project to help an entire school district become more self-renewing. The OD intervention was the experimental treatment of a major research project of CASEA's Program on Strategies of Organizational Change. CASEA's efforts started during the fall of 1967 with entry, contract-building, and diagnostic data collections. Active consultation with the district's subsystems commenced in the spring of 1968, climaxed in the summer of 1969 with the preparation of a cadre of internal organizational specialists, and ended during the spring of 1970 (see Schmuck and Runkel, 1972; and Porter, 1972 for details).

The initial training event (April 7-11, 1968) was attended by 65 key line personnel, including the superintendent and his assistants ("the cabinet"), all of the principals, teachers representing every building in the district, and the officers of the local education association. The goals of this event were to establish widespread understanding and favorable attitudes about organization development, to identify intergroup problems -- especially across hierarchical levels -- that would provide the content (and motivation) for subsequent communication skill training and problem solving, and to establish norms for collaboration within and across the various participating role-groups.

Although organization development does not primarily aim to achieve changes in individuals, particular psychological changes should occur with respect to participants' cognitions and attitudes about organizational
tasks, role relationships, and group norms. Indeed, the April, 1968 training event deliberately aimed at raising the participants' levels of information and attitudes about OD. We believed that it would be especially important to the viability of a long-term OD effort within a school district for the attitudes of key line personnel to be favorable toward that effort.

The Training Event

The event lasted four days, but only the superintendent's cabinet was present all of the time. On the first day, before the others arrived, the superintendent and his cabinet discussed ways in which communication was breaking down among them, the lack of clarity in their role definitions, the ambiguous norms that existed within the cabinet, and finally, their strengths as a group. They were trained to use the communication skills of paraphrasing, behavior description, description of feelings, and impression checking during these discussions.

On the second day, the principals joined the cabinet in a specially designed "imaging" procedure that uncovered the organizational problems viewed by each group as involving the other. (See Schmuck, Runkel, Saturen, Martell, and Derr, 1972, pp. 158-159 for details.) The problems that were brought out were earmarked for future problem-solving.

The imaging procedure began as follows: First, the cabinet and principals divided into three units; the cabinet, the elementary principals, and the secondary principals. Next, each of these groups met separately to consider helpful and unhelpful work-related behaviors of the other two groups toward their own group. At the end of two hours, all agreed-upon
actions of the other group were written in large letters on newsprint. The session ended with a brief period of training in the communication skills of paraphrasing and behavior description.

Next, one group sat in a circle surrounded by members of the other two groups. Participants sitting in the outer ring read aloud the descriptions they had written of the inside group. A member of the inner circle then paraphrased the description to make sure that his colleagues understood it. After all items describing the inside group were read, the remaining two groups took their turns in the center circle. During this step, group members of the inner circle who were receiving descriptions of their own group were not allowed to defend their group against the allegations made by the others.

After this step, the three groups again met separately to find evidence that would support the descriptions they had received; they were instructed to recall examples of their own behavior that could have given the other group its impressions. The three groups then came together once again with one group forming the inner circle. Each inner group told the others of the evidence they had recalled to verify the perceptions of the others. Once again, the inner group was discouraged from defending itself; members were asked simply to describe the behavioral events they thought supported the others’ perceptions.

On the evening of the second day, the teachers arrived to join the principals and cabinet, and for four hours all of the line personnel with formal authority in the district met together. A modified imaging procedure was continued, culminating in a large meeting in which the three groups specified the organizational problems they thought existed in the
district. Discussion was open and constructive; most personnel had never before confronted persons in higher status positions so openly with their perceptions of district problems. The principals went back to their buildings the next day, leaving time for teachers and cabinet to interact with one another. On the fourth day, the cabinet met alone to schedule some subsequent dates for problem-solving.

Hypotheses and Measures

The purpose of this particular analysis was to assess any changes in cognitions and attitudes in relation to OD goals and procedures that may have occurred among the 65 participants who attended this training event. Data were available for assessing psychological changes over a two-year period. Questionnaires were administered to these participants and to a matched comparison group from two nearby school districts during the spring terms in 1968, 1969, and 1970. For details of the matching procedure, see Porter (1972).

We tested eight hypotheses by comparing responses of participants from two control districts. Data were used only from those respondents who answered all questions unambiguously in 1968 and 1970. Staff turnover and incomplete questionnaires account for the reduced number of respondents appearing in the analysis (43 in the experimental group and 41 in the control group).

Eight questionnaire items were used to measure an equal number of dependent variables, one dependent variable for each hypothesis. Responses to items asking about one's own attitudes involved choices to the following scale: (1) I would approve strongly; (2) I would approve mildly or
some, (3) I wouldn't carry one way or the other, (4) I would disapprove mildly or some, or (5) I would disapprove strongly. Responses to items asking for predictions of how others would behave involved choices to this scale: (A) Yes, I think most would, (B) Maybe about half would, (C) No, most would not do this, or (D) I don't know.

The hypotheses tested (and the items used to measure the dependent variables) were that, as a result of organization development, the experimental group would be more likely than the control group to:

1. **Disapprove of a teacher suppressing or stopping an argument between two other teachers.** The questionnaire item was: Suppose Teacher X were present when two others got into a hot argument about how the school is run. And suppose Teacher X tried to get them to quiet down and stop arguing. How would you feel about the behavior of Teacher X?

2. **Approve of asking other teachers for help in teaching.** The item was: Suppose Teacher X wants to improve his classroom effectiveness. If X asked another teacher to observe his teaching and then have a conference about it afterward, how would you feel toward X?

3. **Approve of discussing personal feelings in groups.** The item was: Suppose you are in a committee meeting with Teacher X and the other members begin to describe their personal feelings about what goes on in the school; Teacher X listens to them and tells his own feelings. How would you feel about X?

4. **Predict that their peers would not take sides in a personal disagreement.** The item was: Suppose a teacher (Teacher X) is present when two others get into a hot argument about how the school is run. If teachers you know in your school were in Teacher X's place, what would
most of them be likely to do? Would most of the teachers in your school probably listen to both arguers and then side with the one they thought was right?

5. Predict that their peers would act as negotiators in a misunderstanding of their peers. The item was: Suppose a teacher (Teacher X) is present when two others get into a hot argument on how the school is run. If teachers you know in your school were in Teacher X's place, what would most of them be likely to do? Would they try to help each one in the argument to understand the viewpoint of the other?

6. Predict that their peers would continue communication with a peer who had injured their feelings. The item was: Suppose Teacher X feels hurt and "put down" by something another teacher has said to him. In teacher X's place, would most of the teachers you know in your school be likely to tell the other teacher that they felt hurt and put down?

7. Predict that their peers would not close off communication with another after having felt hurt by the other. The item was: Suppose Teacher X feels hurt and "put down" by something another teacher has said to him. In Teacher X's place, would most of the teachers in your school be likely to tell their friends that the other teacher is hard to get along with?

8. Predict that their peers would keep communication open with one another after a disagreement. The item was: Suppose Teacher X strongly disagrees with something B says at a staff meeting. In Teacher X's place, would most of the teachers in your school seek out B to discuss the disagreement?
Supported Hypotheses

An overview of the analysis indicates that four of the eight hypotheses were confirmed. Hypotheses 1, 3, 6, and 8 received support, while hypotheses 2, 4, 5, and 7 did not. Here are the results in some detail; the four confirmed hypotheses are discussed first.

Hypothesis 1. This hypothesis stated that the experimental group would be more likely than the controls to disapprove of a teacher suppressing an argument between two other teachers by trying to get them to quiet down and to stop arguing. One value of OD is to uncover conflicts so that they can be worked on constructively. In order to accept this hypothesis, more experimental respondents compared to controls should have selected scale-points 3, 4, or 5, and less should have selected points 1 or 2. Like all other items, this item was analyzed by comparing the experimental teachers and principals with their matched controls and the entire experimental group with the entire control group in 1970. Chi square analyses for both of these comparisons were statistically significant in the predicted direction. Another analysis was made comparing the experimental group in 1970 with itself in 1968. This statistical analysis showed no difference. Accordingly, we obtained statistically significant evidence that the central office administrators, the principals, and the teachers of the experimental district were less ready, as a group, to approve of quieting-down interpersonal conflict than were those in the comparison sample and that they, the experimental group, had this readiness early in the project and maintained it throughout.
Hypothesis 3. This hypothesis stated that the experimental group would be more likely than the controls to approve of discussing personal feelings in groups. Results indicated that although the experimental and control groups did not differ on this item in 1968, the experimental group significantly changed between 1968 and 1970 in the expected direction and in contrast the control group did not change. Hypothesis 3 thus was accepted.

Hypothesis 6. This hypothesis stated that the experimental group would be more likely than the control group to predict that their peers would continue communications with a peer who had injured their feelings. According to this prediction, there should have been fewer experimental respondents selecting C or D and more selecting A or B in 1970 compared with 1968; and fewer control respondents selecting A or B than the experimental subjects in 1970. Comparison of the experimental group and the control group as well as the experimental group with itself strongly supported this hypothesis. Data showed, for example, that while 59.9% of the experimental group answered in the predicted categories in 1970, only 26.7% of the control group did so answer. And, only 31.2% of the experimental group answered in the predicted categories in 1968 compared with 59.9% in 1970.

Hypothesis 8. This hypothesis stated that the experimental group, compared with the control group, would be more likely to predict that their peers would keep communication open with others after a disagreement. According to this prediction, there should have been fewer experimental respondents selecting C or D and more selecting A or B in 1970 than in 1968, and there should have been more experimental respondents selecting A or B
compared to the controls in 1970. Analyses indicated a definite tendency ($p > .10$) for this hypothesis to be confirmed. Specifically, 78.1% of the experimental subjects answered in the predicted categories in 1970 compared with 56.8% of the control group, and 68.7% of the experimental group answered A or B in 1968 compared with 78.1% in 1970.

Unsupported Hypotheses

The four unsupported hypotheses were numbered 2, 4, 5, and 7.

Hypothesis 2. This hypothesis stated that the experimental group would be more likely than the controls to approve of asking other teachers for help in teaching. To accept this hypothesis, there should have been fewer respondents selecting 3, 4, or 5 and more selecting 1 or 2 in the experimental group than in the control group. Chi square analyses were not significant and the Z scores used in the comparison of the experimental group with itself in 1970 and 1968 also were not significant.

Hypothesis 4. This hypothesis stated that the experimental group would be more likely than the controls to predict that their peers would not take sides in a personal disagreement. To accept this hypothesis, there should have been fewer experimental respondents selecting scale points A or D and more selecting B or C in 1970 than in 1968. Furthermore, since choices B or C would suggest that teachers were less likely to take sides in a personal disagreement more of the experimental group should have selected these scale points than the control group in 1970. Data analyses showed that the experimental group did not change on this item and that the experimental
and the control groups did not differ.

**Hypothesis 5.** This hypothesis stated that the experimental group would be more likely to predict that their peers would act as negotiators in a misunderstanding of other peers. In comparing data of the experimental group, no significant difference was found. We should point out, however, that members of both the experimental and the control groups thought that their colleagues would be likely to act as negotiators in a misunderstanding of their peers. Very high numbers of both groups approved of such mediating behaviors.

**Hypothesis 7.** This hypothesis stated that the experimental group would be less likely than the controls to predict that their peers would close off communication with another after having felt hurt by the other. As with hypothesis 5, no significant difference was found between the groups or over time, but very high percentages of both groups believed that their peers would attempt to keep communication open with others who may have hurt their feelings.

**Discussion**

Although these data did not unequivocally prove that the OD training event had a significant psychological impact on the key line personnel, the statistical analyses did show support for four of the eight hypotheses. These analyses do indicate that some psychological effects -- beyond what would be expected by mere chance -- most probably did occur.

A careful comparison of the eight questionnaire items used in the
study does shed some light on why half of the hypotheses came out as expected and the other half did not. For one thing, in two of the four unsupported hypotheses (numbered 5 and 7), the data indicated that very high proportions of both the experimental participants and the controls started out in the pretest of 1968 by approving the favorable behaviors from the OD point of view. These pretest data which we unfortunately neglected to inspect before adopting constituted a ceiling effect leaving very little room for the experimentals to move upward, and thus made these two items relatively less useful compared to the other six for measuring changes of the OD participants.

Secondly, the items used to test the four supported hypotheses described emotionally-laden interpersonal events in which the respondent was being called upon to interact confrontively and directly with colleagues about uncomfortable topics. The items used to test the four unsupported hypotheses (and especially the two where changes from the pretest to the post-test were possible) described less emotional and less confrontive circumstances.

Thirdly, items used to test the supported hypotheses emphasized the highlighting of diversity among colleagues and a belief that individual differences among staff members -- especially differences in feelings and values -- should be played up. The items of the unsupported hypotheses did not emphasize this feature as much.

These results are not surprising in light of the sort of training design that was carried out during the initial four-day OD event. The imaging procedure which emphasized the uncovering of intergroup and interpersonal conflicts in a constructive (yet confrontive) fashion took the
bulk of the workshop time. Participants spent a large amount of time describing feelings of irritation, paraphrasing one another's feeling-statements, and directly confronting one another about their differences in educational values. Even though collaborative problem-solving did take place later during the project within particular subsystems of the district, the primary theme of this first event definitely focused on the importance of uncovering organizational conflicts as a necessary first step for making organizational improvements.

Whatever the reason for the particular psychological changes that did occur as a result of this initial event and subsequent events, we are convinced that experiencing the imaging procedure so early in the total OD design did predispose most of the key line personnel to look favorably on subsequent OD training for the entire district. Most of the participants, for example, said that they looked forward to more OD consultation. Moreover, not one of these key line personnel refused to allow subsequent OD consultation within the subsystem in which he had prominent membership. In fact, many of the OD events that took place from spring of 1968 to spring of 1970 were requested in some manner by participants present in this first event.

Key line personnel have also given first-hand support to the implementation of OD on a continuing basis. Seven of the original participants became a part of the 25-member cadre of internal OD specialists that was trained during the summer of 1970 (details on how this team of organizational specialists was developed appear in Chapter 10 of Schmuck and Miles, 1971 and in Schmuck and Runkel, 1972). The superintendent him-
self sought training as an OD specialist during the summer of 1970. And perhaps the most outstanding fact about the organizational effects of this initial four-day event is that this cadre of OD specialists survived and remained stable and productive through a remarkable chain of disruptive events, including the resignation of the original coordinator of the specialists, a change in the superintendency in 1971, and a crippling financial crisis during the period from 1970 to 1972 (see Wyant, 1971, for some of the details).

Even now in 1973, the OD cadre is showing strong signs of being self-renewing. It is flourishing with a handful of original members and with second, third, and even fourth waves of membership carrying on in effective ways.
References


