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The special concern of this manual is the improvement of working relationships among the members of a school's administration, faculty, and staff. Studies have indicated that for complex problems offering many alternatives, decisions produced by group interaction are usually far superior to decisions produced solely by individuals. To achieve consensual decision-making, organizational development must take effect through some formal training. The exercises in this manual provide training in the use of group resources, the clarification of roles, organizational participation, problem-solving, improving meetings, and planning organizational training. A related document is EA 002 558. (LN)

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A PRELIMINARY MANUAL FOR  
ORGANIZATIONAL TRAINING  
in SCHOOLS

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## PREFACE

We have made use of the exercises and procedures described in this booklet in our recent organizational training in schools. We feel they served their purpose well. However, we have not tried these techniques in a wide variety of schools and communities, nor among groups of disparate purposes, nor have we seen them being tried by leaders or "trainers" of diverse backgrounds and training. Consequently, we must consider this collection of techniques and the text accompanying them to be preliminary until we and others have gained wider experience with them in schools. We do not at present recommend unrestricted circulation of this booklet and we certainly do not believe that inexperienced persons should expect to read a description of an exercise in this booklet, carry it out with a group in a school, and expect inevitably to move the group toward organizational goals.

Richard A. Schmuck  
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23 June 1969

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## Chapter 1

### INTRODUCTION AND THEORY

The school is more than simply the sum total of its individual members and curriculum materials. The total school staff has characteristics different from those of its individual members, and, if the staff is effectively managed, it may have a greater productive capacity than would be expected from a simple summing up of individual resources. The school is a complex social system stabilized by role expectations and interpersonal norms. Individuals within the faculty behave predictably largely because of their adherence to shared expectations for what is appropriate in the school. Norms are compelling stabilizers because individuals in the school monitor one another's behaviors. It is the strength of "sharedness" that makes a school organization so resistant to modification but, at the same time, offers a tool for planned change. If organizational change in the school is to be viable and stable, changes in interpersonal expectations must be shared so that each person knows that his colleagues have changed their expectations in the same way that he has changed his own.

Studies of group decision-making and problem-solving have indicated that decisions produced by individuals interacting in a group are usually superior to decisions produced by individuals when certain kinds of tasks are to be carried out. Where a task is relatively simple in its elements, where the elements are objectively separable, and where the task calls for a strict sequence of acts that can be performed by

an individual, then an individual trained to organize or solve that type of problem will almost always reach a better decision, and more rapidly, than would a group.

However, in the case of problems that are complex, that have many alternative paths or orders of sub-tasks through which the problem can be attacked, in which the elements are not easily discerned or conceptualized, in which one person can do one sub-task without interfering with another, and, in particular, where the efficacy of the solution depends on the continued coordination of a number of persons, then the decision will almost always be superior if it is produced by a group, in comparison to being produced even by the most capable of the individuals. Furthermore, coordination will be superior if those persons involved in performing the task compose the group making the decision. Of course, the quality of the decision is also affected by the skills of the group members in coordinating their individual resources and their efforts. See, for example, Hall and O'Leary (1967), McDavid and Harari (1968, Chapter 11), Miles (1959, Chapter 2), Newcomb, Turner, and Converse (1965, Chapter 15), and Watson (1966, Chapter 4).

Three decision-making styles observed to occur often in groups are: (1) decisions made by a single person or a minority of a group, (2) decisions based on the ability of a majority to overrule a minority, and (3) decisions based on support and agreement of the total group after debate and discussion. While it is difficult to obtain these decision-making patterns in their pure form, even under controlled laboratory conditions, studies by behavioral scientists indicate that each has a different effect on a group's performance. Speaking again of complex tasks demanding coordination, decisions emanating from the minority sub-group

style (which is the style most frequently used in everyday life) are the least effective in using member resources and in obtaining the commitment of members, and are least apt to be decisions of high quality. When the number of members contributing to a decision is few, the final decision depends on the limited resources of the few. Generally, the minority (or one person) does less well than the total group both because it usually does not have as much resourcefulness as the total group and because mutual probing and stimulation are missing. This especially is true in complex organizations such as schools, in which the central tasks of the organization cannot be carried out in a small face-to-face group involving most of the members.

The majority-vote style relies more than does the previous method on the combined effects produced by interaction and the resources of most individuals. As such, it is superior to the minority style in producing effective decisions. However, some assets are still being wasted when the majority vote is used. To the extent that the out-voted or non-involved minority are unable to use their resources and to influence the decision, there are still some resources not being brought to bear on the decision.

The decision-making style of group consensus represents a pattern of interaction in which all participants contribute resources and all share in the final decision. No decision becomes final that cannot obtain the approval of nearly all members; for this reason, consensus is difficult and sometimes impossible to obtain. It requires a fairly advanced understanding of the dynamics of conflict, interpersonal relations, and the use of individual resources. Observations indicate, however, that the method of consensus, when applied to complex problems

requiring complex interpersonal coordination, results in decisions of superior quality which are usually well implemented.

If the method of consensus is to be used to greatest effort, the group must be skilful in using its resources. Ordinary life in groups does not enable most of us to develop the requisite skill. In fact, even if one develops skill of this sort in one group, he may find himself quite unable to bring this skill to bear in another group.

The findings of behavioral science about group behavior indicate that properties of groups are not inherently or inevitably those which we typically observe when we deal with groups as mere collections of individuals. The evidence also indicates that it is possible to create relationships among individuals comprising a face-to-face group such that the group exhibits properties different from, even directly opposed to, those properties to be observed in typical committees, staff groups, or task forces in everyday organizational life.

Behavioral research has indicated that the more effective groups are those whose leaders allow for greater participation, initially wider divergence of expressed judgments, and greater acceptance of diverse decisions (Torrance, 1957). Moreover, effective leaders have been shown to encourage minority opinions and conflict to a greater extent than less effective leaders (Maier and Solem, 1952). Also, it has been shown that group participants with little influence over a decision not only fail to contribute their resources to a decision but also are usually less likely to carry out the decision when action is required (Coch and French, 1948). Persons who do not feel involved implement a decision made by the others only half-heartedly, if at all.



Attempting consensus is probably the least frequently used form of decision making in schools. One attraction the majority-vote style holds for administrators is that it easily disguises and avoids the conflicts that result from differences of opinion. In circumstances where pronounced status differences exist among members of the staff, the majority style may be employed to short-circuit conflict and save time. While consensus usually does result in a more resourceful decision, it is not designed to avoid conflict or to overcome group resistance in the short run, and therefore frequently is discounted as unfeasible and impractical. However, decisions concerning such things as instructional matters could be more effectively made if staff members were able to stimulate and encourage use of one another's resources in the decision making.

Paraphrasing McGregor (1967, pp. 29-30), consensual groups can make decisions that are effectively implemented without the necessity for external pressure or surveillance. Consensual groups can be creative and innovative; they can operate efficiently; they are not usually crippled by disagreements or hampered by dominant personalities. Pressures for conformity can be minimal, and the knowledge and skills of each member can be effectively utilized. The outputs do not have to be mediocre, least-common-denominator compromises, but can often yield decisions and problem solutions at a general level of performance superior to the sum of the outputs of the individual members operating separately.

Most school staffs do not fully use staff resources or employ a consensus decision-making style. Few staffs have the group process skills necessary for effective communication, problem solving, and decision making. One approach that school administrators might take toward more fully using

staff resources is to try to increase the quality of organizational health of the school. The phrase, "organizational health" denotes interpersonal and group processes that facilitate both the school's productivity and a collaborative social-emotional climate. The special concern of this manual is the interpersonal processes among the members of a school or school district. There is some evidence that a number of group conditions often termed "healthy organizational processes" characterize an effective school. These healthy characteristics include clarity of educational goals and substantial agreement upon them, communication clarity, dispersed influence structure, group cohesiveness, and supportive norms such as valuing authenticity and openness, using an objective problem-solving method of working through difficulties, seeking a variety of solutions to problems before making a decision, expecting mutual trust among staff members, and having concern for the thoughts and feelings of colleagues.

The administrator who leads his staff toward "healthier" group relations will find it easier to achieve a consensual style of making decisions. In schools where the staff is clear about its goals, has clear communication, has dispersed influence processes, is cohesive, and has positive and supportive group norms using staff resources through consensual problem-solving will come more easily. Furthermore, in a circular manner, as the consensual style is more often employed by a staff, it will reinforce a "healthy" level of group processes. With healthy organizational processes and a consensual style of decision making, the school staff will be better able to process its resources in efficient ways.

The group exercises and procedures described in this manual are aimed at helping create more "healthy" organizational processes in schools.

For such group processes to be effective, the administrator must be willing to take risks in trying out different leadership patterns. He should be inventive, adventuresome, and have enough confidence to be able to fail. He must be especially innovative in his behavior during staff and committee meetings, and to describe his feelings about trying new approaches authentically and openly to his staff. The administrator is not expected to become a specialist or trainer in group processes; rather, he might attempt to integrate these group procedures into the usual managerial tasks of the school or interest another staff member in taking responsibilities for training. Outside consultation may be necessary at times to help a school staff initiate change; it may be needed for a few sessions at the beginning. But we hope that most of the group procedures described in this manual will turn out to be widely useful by the members of a school staff without the presence of consultants.

We make a distinction between exercises and procedures. By an exercise, we mean a structured game-like activity designed to produce certain interpersonal processes so that the participants can discuss and conceptualize a process as it has just been manifested in their own personal experience. Each exercise is designed to make salient a certain type of process and thereby to make certain "lessons" easy to comprehend. In brief, each exercise has a particular content and product. By a procedure, on the other hand, we mean an interpersonal form for communication in a group without any particular content in itself. A procedure can be used for any of a variety of tasks for any of a variety of purposes. An example of a procedure would be voting; another would be the "fishbowl" procedure for sharing ideas and reports. (We shall describe the fishbowl procedure in Chapter 6.)

The exercises and procedures in this manual are aimed at improving working relationships within a school building or system. The basic focus of these interventions is on organizational form in terms of relationships between role occupants, not on the persons in their complete individualities. This is, in other words, a manual of training interventions pointed toward organizational development, not personal development. Even though emotional reactions of persons always must be considered in working on organizational development, our target in organizational development remains fixed on roles and their relationships. Organizational training, as we conceive it for this manual, aims at rearranging, strengthening, or in some way refurbishing the relationships between role-takers and not at changing the psychological configurations of emotions or motives within the individual. Even new cognitive understandings remain a small part of these exercises and procedures. Psychic changes may occur, but only as epiphenomena.

The exercises and procedures presented in this manual were specifically selected for their usefulness in improving the functioning of continuing work groups within organizations and for their adaptability to the school setting. Most have been tried out in the Highland Park Project (Schmuck and Runkel, in press); the others have been used a great deal in the same or similar forms in other previous work with other trainers. Within the Highland Park Project in particular, these exercises and procedures were very effective. They helped to bring about improvements in the communication patterns and organizational effectiveness of that staff. Moreover, a few of them were employed by teachers to improve the group processes in their classrooms.

We do not present these exercises and procedures as thoroughly tested and ready for use by the nearest principal or teacher. We present them as a preliminary collection to be further refined in ways that will reduce the necessity for a specialist-trainer. As CASEA projects continue, our intention is that exercises and procedures like these can gradually be clustered, packaged, and connected to objective diagnostic methods so that they can be used with very little introductory training.

Chapter 2  
EXERCISES IN  
USING GROUP RESOURCES

The Trip Across the Moon\*

The "Moon exercise" is used to demonstrate the processes by which the resources brought to a group by its individuals come to be used or fail to be used by the group in solving a problem or performing a task. It is especially useful in showing that when groups function effectively, they perform better than if the individuals had worked separately.

The moon exercise asks the participants to imagine themselves to be members of a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Because of mechanical difficulties, however, the imaginary ship was forced to land at a spot some 200 miles from the rendezvous point. During the landing, much of the equipment aboard was damaged, and since survival depends upon reaching the mother ship, the most critical items available must be chosen for the 200-mile trip. The participants are given sheets of paper listing fifteen items presumably left intact and undamaged after landing. The task in each problem-solving group is to rank-order the fifteen items according to their importance in helping the crew to reach the rendezvous point. The exercise begins with the trainer asking each individual to make his own private rank-ordering of the fifteen items. The group is given some brief instructions to help them reach consensus.

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\*This exercise is also known as The NASA Exercise and Lost on the Moon. According to an article in Today's Education for February of 1969 prepared with the help of Barbara Luke, this exercise was devised by Jay Hall of the University of Texas.

The instructions we used at Highland Park are shown in Figure 2-1. As a work-sheet and list of items combined, each participant is given a copy of the sheet shown as Figure 2-2.

The groups are allowed approximately forty-five minutes to reach their rank-orderings by consensus and then the results are tabulated. In each group, one person serves as secretary while each member of the group calls off his own private rank-ordering of the fifteen items. The secretary copies down these rank-orderings on a special sheet (see Figure 2-3). After the private rank-ordering of each person has been written on the sheet, the secretary averages the rankings for each one of the fifteen items and rank-orders the averages, thus arriving at an "average rank-order" for the group. This average rank-order could represent the rank-order that might have been obtained had the group spent time voting rather than discussing. The secretary also writes down on the special sheet the rank-order that the group has reached by consensus.

All groups work in one large room in circles, the several circles separated so as to minimize the distraction of one by another. When the secretaries in each group have completed their work, the "correct" answer to this exercise is announced (The rank-ordering agreed upon by a number of space experts at the National Authority for Space Aeronautics -- NASA -- is considered the correct one -- see Figure 2-3.) The secretaries write this rank-ordering on their sheets.

Each group then computes three scores by summing the discrepancies between the correct rank-order and three rank-orders that were already written on the secretaries' sheets: (1) the rank-order obtained through consensus, (2) the average rank-order, and (3) the individual private rank-order that came closest to the NASA rank-order. Each group then sees whether its "best" individual, its averaged product, or its

Figure 2-1

## NASA

## DECISION BY CONSENSUS

INSTRUCTIONS: This is an exercise in group decision making. Your group is to employ the method of Group Consensus in reaching its decision. This means that the prediction for each of the 15 survival items must be agreed upon by each group member before it becomes a part of the group decision. Consensus is difficult to reach. Therefore, not every ranking will meet with everyone's complete approval. Try, as a group, to make each ranking one with which all group members can at least partially agree. Here are some guides to use in reaching consensus:

1. Avoid arguing for your own individual judgments. Exchange useful information.
2. Avoid changing your mind only to reach agreement and avoid conflict. Support only solutions with which you are able to agree, somewhat, at least.
3. Avoid "conflict-reducing" techniques such as majority vote, averaging, or trading in reaching decisions.
4. View differences of opinion as helpful rather than as a hindrance in decision-making.

On the "Group Summary Sheet" place the individual rankings made earlier by each group member. Take as much time as you need in reaching your group decision.



## Figure 2-2

## NASA

INSTRUCTIONS: You are a member of a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Due to mechanical difficulties, however, your ship was forced to land at a spot some 200 miles from the rendezvous point. During re-entry and landing, much of the equipment aboard was damaged, and, since survival depends on reaching the mother ship, the most critical items available must be chosen for the 200-mile trip. Below are listed the 15 items left intact and undamaged after landing. Your task is to rank-order them in terms of the importance for your crew in allowing them to reach the rendezvous point. Place the number 1 by the most important item, the number 2 by the second most important, and so on through number 15, the least important.

- \_\_\_\_\_ Box of matches
- \_\_\_\_\_ Food concentrate
- \_\_\_\_\_ 50 feet of nylon rope
- \_\_\_\_\_ Parachute silk
- \_\_\_\_\_ Portable heating unit
- \_\_\_\_\_ Two .45 calibre pistols
- \_\_\_\_\_ Two 100 lb. tanks of oxygen
- \_\_\_\_\_ Stellar map (of the moon's constellation)
- \_\_\_\_\_ Life raft
- \_\_\_\_\_ Magnetic compass
- \_\_\_\_\_ 5 gallons of water
- \_\_\_\_\_ Signal flares
- \_\_\_\_\_ First aid kit
- \_\_\_\_\_ Solar-powered FM receiver-transmitter
- \_\_\_\_\_ One case dehydrated milk

Figure 2-3

## GROUP SUMMARY SHEET

N A S A

Correct Ranking

Group Ranking

Ranking of averages

Average sum of indiv. rankings

Individual Rankings

	1	2	3	4	5	6	7	8	9	10	
Box of matches											15
Food concentrate											4
50 feet of nylon rope											6
Parachute silk											8
Portable heating unit											13
Two .45 calibre pistols											11
One case dehydrated Pet Milk											12
Two 100 lb. tanks of oxygen											1
Stellar map (of the moon's constellation)											3
Life raft											9
Magnetic compass											14
Five gallons of water											2
Signal flares											10
First aid kit containing injection needles											7
Solar-powered radio											5

consensual product is superior.

After the participants have inspected the charts and have discussed them informally for a few minutes, each group should discuss the following three sorts of questions, and the highpoints of the discussions in the separate groups should be made known to the total assembly of participants. For the latter, one of the procedures in Chapter 6 could be adapted.

1. What were your reactions to the exercise? How did you feel? What were you thinking?
2. How similar were our behaviors here to the way they usually are in school? How different? What implications does this exercise have for our staff?
3. How well did we use our resources in the group? What kept us from using them better? How could the obstacles to better use of resources have been avoided?

### Twelve Angry Men

This is an exercise in group decision-making involving the prediction of the order in which the jurors in the movie 12 Angry Men will change their votes to a "not guilty" verdict. In the movie, eleven of the twelve men vote guilty. Each man then changes his vote to not guilty, one at a time. Enough information is given about each juror before the changes occur so as to make it a reasonable task to try to predict the order of change.

This exercise represents a complex situation in which a number of interdependent judgments must be fused together into a final group decision. All of the elements usually present in an actual decision-dilemma are present in the exercise; each individual facing this exercise has some opinions about the issues prior to group discussion; no one has a sufficient amount of information to be completely sure of his individual judgments; the out-

come in the movie, coming as it does as a surprise, requires a recall of facts and interpretations which may have had no significance for the individual decision-maker at the time they occurred; and each group member feels fairly strongly about some of his judgments and less involved in others. These circumstances are very much like many of the day-to-day decision-making sessions which confront people. The problem becomes one of integrating the judgments of people in the group so as to produce the most adequate decision.

As in the Trip-across-the-Moon exercise, the group is to employ the method of Group Consensus in reaching its decision. This means that the prediction of the order in which the jurors change their vote must be agreed upon by each group member before it becomes a part of the group decision. Consensus is difficult to reach. Therefore, not every ranking will meet with everyone's complete approval. The group should try to make each ranking one with which all group members can at least partially agree. Here are some guides to use in reaching consensus:

1. Avoid arguing for your own individual judgments. Exchange useful information.
2. Avoid changing your mind only to reach agreement and avoid conflict. Support only solutions with which you are able to agree somewhat, at least.
3. Avoid "conflict-reducing" techniques such as majority vote, averaging, or trading in reaching decisions.
4. View differences of opinion as helpful rather than as a hindrance in decision making.

On the "Group Summary Sheet" the group secretary places rankings made earlier by each group member.

The movie is shown until just before, in the movie, the second vote of the jurors is taken (about 20 minutes). While watching the first

part of the film, the participants can take notes on a sheet such as Figure 2-4. After the movie is stopped, each participant fills out the form shown as Figure 2-5. Then, as in the Moon Exercise, a secretary fills in individual and group rank orders and compares them with the actual order in which the jurors change their vote in the movie. A form such as Figure 2-6 can be used. The exercise should conclude with a discussion of the strengths and weaknesses of the group in using its resources.

The questions suggested for use with the NASA exercise can also be used here.

#### Non-Verbal Cooperation: The Five-Square Puzzle

The five-square exercise demonstrates coordination or cooperation in a group task in which there is non-verbal communication. It is administered to participants in groups of five. Observers are instructed to look for ways that participants communicated non-verbally and also for ways in which cooperation in the groups was helped or hindered.

The participants are instructed to sit at tables, each table having five chairs around it. When the participant in the five-square puzzle sits at the table with the four other members of his group, he finds that there are some flat pieces of plastic or cardboard in front of each person. Most of the pieces are irregularly shaped. One person has in front of him, in an unordered pile, the three pieces marked "A" in Figure 2-7; another has the four pieces marked "B", another the two marked "C", another the two marked "D", and the fifth person has the four pieces marked "E".

The participants are instructed that there are exactly enough parts distributed among the five people to make five complete squares. The task is completed when a completed square is put together in front of each person in the group. The rules are as follows: (1) Each member must con-

Figure 2-4

Twelve Angry Men

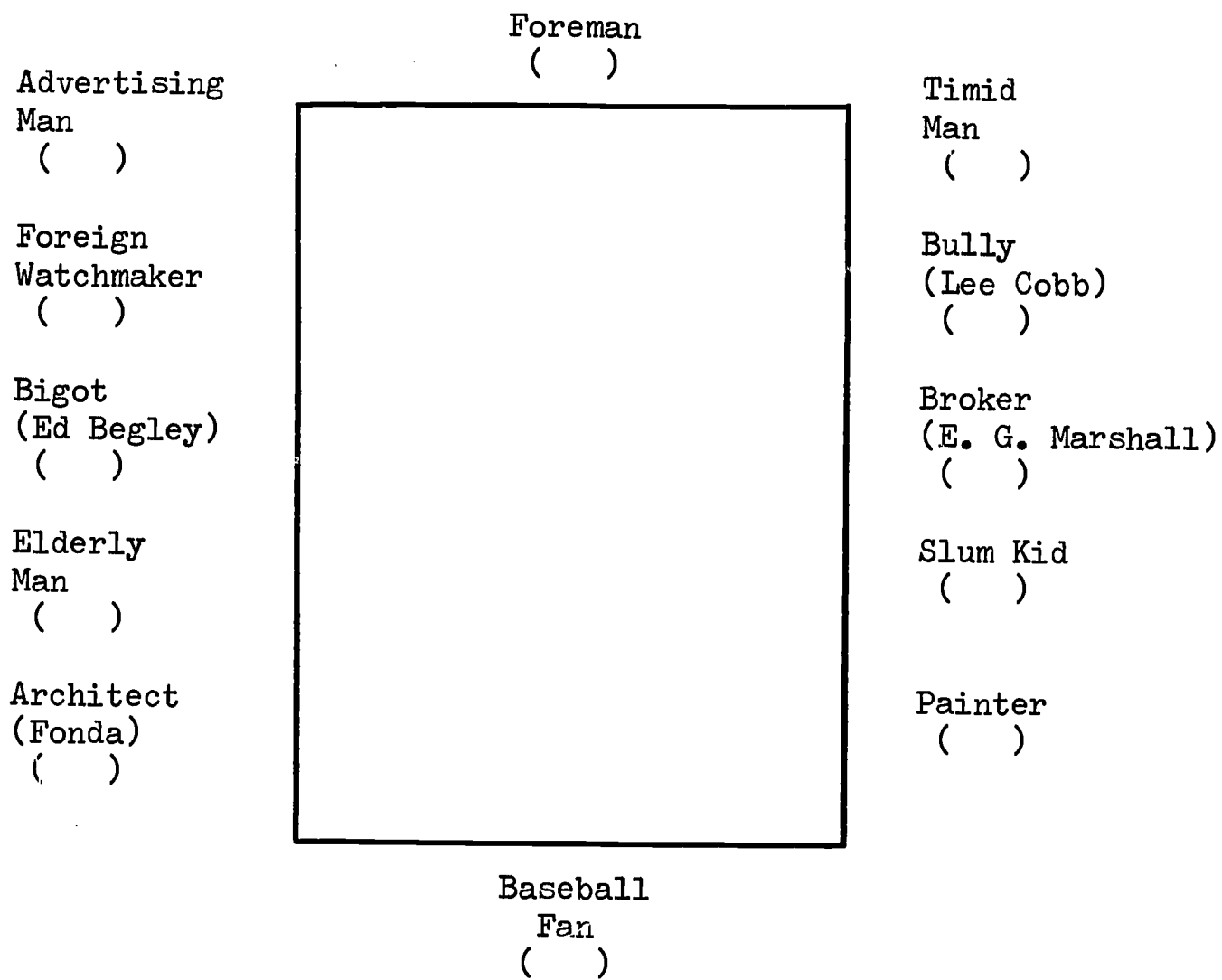


Figure 2-5

## DECISION FORM

INSTRUCTIONS: You have just seen the first part of the movie, Twelve Angry Men, and have begun to develop some feelings, attitudes, and hunches about each of the jurors. Throughout the rest of the movie the jurors change their votes from guilty to not guilty, one at a time, until the total jury votes not guilty at the end. You do not know what facts will be produced nor what discussion will take up, but you do have sufficient information at this point to make a good guess as to the sequence with which jury members will change their vote. Who will be first? Who will be last? Place a 1 after architect (Fonda) since we know he is the first not guilty voter. Now place a 2 after the juror who you think will change next, a 3 for the third person to change, and so on to 12. Be sure your name and group is at the top of the paper.

Foreman (Assistant Coach)	_____
Advertising Man (Glasses)	_____
Watchmaker (Mustache)	_____
Bigot (Ed Begley)	_____
Elderly Man	_____
Architect (Fonda)	_____
Baseball Fan	_____
Painter	_____
Slum Kid	_____
Broker (E. G. Marshall)	_____
Bully (Lee Cobb)	_____
Timid Man	_____

Figure 2-6

GROUP SUMMARY SHEET

Twelve Angry Men

	1	2	3	4	5	6	7	8	9	10	11	12	GROUP PREDICTION
Foreman													
Advertising Man													
Watchmaker													
Bigot													
Elderly Man													
Architect													
Baseball Fan													
Painter													
Slum Kid													
Broker													
Bully													
Timid Man													

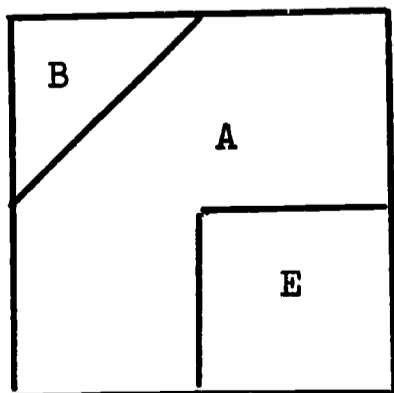
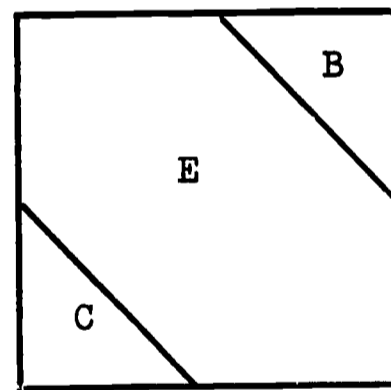
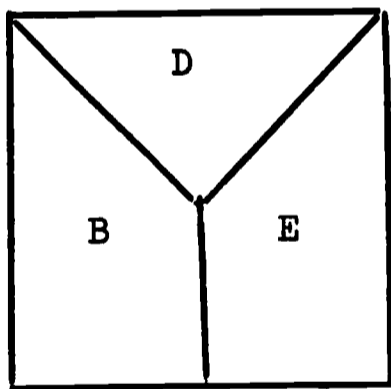
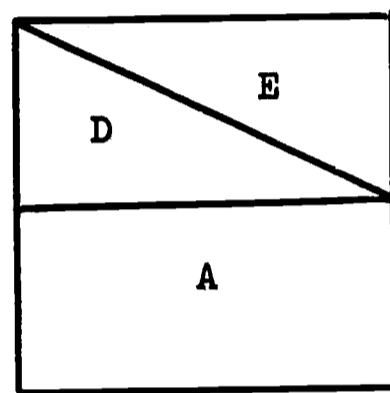
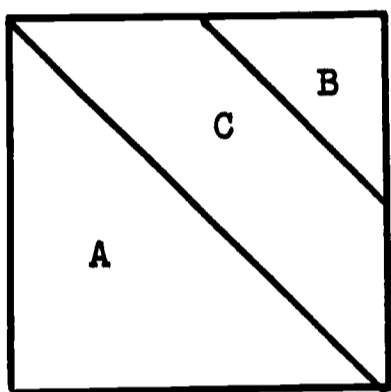


Figure 2-7

## THE FIVE-SQUARE PUZZLE

This diagram shows the pieces needed for one group of five persons and the way in which the pieces fit together into five squares.

At the outset, the pieces labelled "A" are given to participant "A", the "B" pieces are given to "B", etc.



struct one square directly at his work place. (2) No member may talk, signal, or gesture in any way that would provide guidance, direction, or suggestions to any other group member. For example, no member may signal that he wants a piece from another member. (3) Any member may give any of his pieces to another member. (4) Each member's pieces must be in front of him at his work place except the one piece he is giving to another member. Only giving is allowed -- no taking.

This exercise, of course, is difficult and frustrating for individuals who are accustomed to managing others. It is also very difficult for people who are accustomed to guiding themselves by watching for signals of the expectations of others, since the rules cut such signals to a minimum. To the extent that the rules are observed (and it is very difficult for most participants to apply this discipline to themselves) the exercise focuses the attention of the participants on discovering the ways they can be helpful to the task. The most direct contribution a member can make is to look around the table for a place he thinks one of his pieces might fit and give that piece to the appropriate person -- but he must then allow the other person to find for himself the way that piece fits with others in the place before him. This exercise points up the great difficulty experienced in letting other people do things their own way. It also points up the great reliance we put on language to influence the behavior of others. Finally, it provides a very useful amount of information about how members of the group act toward one another under the frustration the exercise produces.

As in other exercises, discussion should follow performance. In this case, the discussion should focus on problems of coordinated effort and the implications of the exercise for relations among the staff members in

their daily work. Some questions to guide the discussion are: (1) What were some of your feelings during the exercise? (2) Do you have any similar feelings when you are working in groups in the school system? Under what circumstances do they arise? (3) What implications does this exercise have on our work in the school?

Planning and Execution: The Hollow-Square Puzzle

This exercise focuses upon the problems of using a formal hierarchy in group problem solving; more specifically, this exercise simulates the problems that occur when one team plans something for another team to carry out. Participants can learn about the processes of team planning, problems of communication between a planning group and an implementing group, and the problems with which an implementing group must cope when carrying out a plan it did not make itself.

The exercise is carried out by clusters of ten or eleven persons. Each cluster is divided into three sub-groups. Four persons serve as "planners," four as "operators," and the remaining two or three as observers. The planners first have a conference to decide how they will instruct the operators to do the task and the operators then carry through the task as best they can while the observers watch the process, making notes of the efficiencies and difficulties.

The exercise involves a planning team of four people sitting around a table with eighteen pieces of cardboard designed to form a hollow square. Each member of the planning team has four or five pieces of the puzzle. The planning team has an over-all design (Figure 2-8) of how the pieces are to be arranged in order to complete the puzzle. Figure 2-8 shows the way the final assembly looks when the problem is correctly solved. The final assembly is about twelve inches square and has an empty square, about one inch by

one inch, at the center. This diagram is given to the planners; it has the diagonal lines slightly thicker than the others to give the planners a hint of a way they might organize their instructions to the operators.

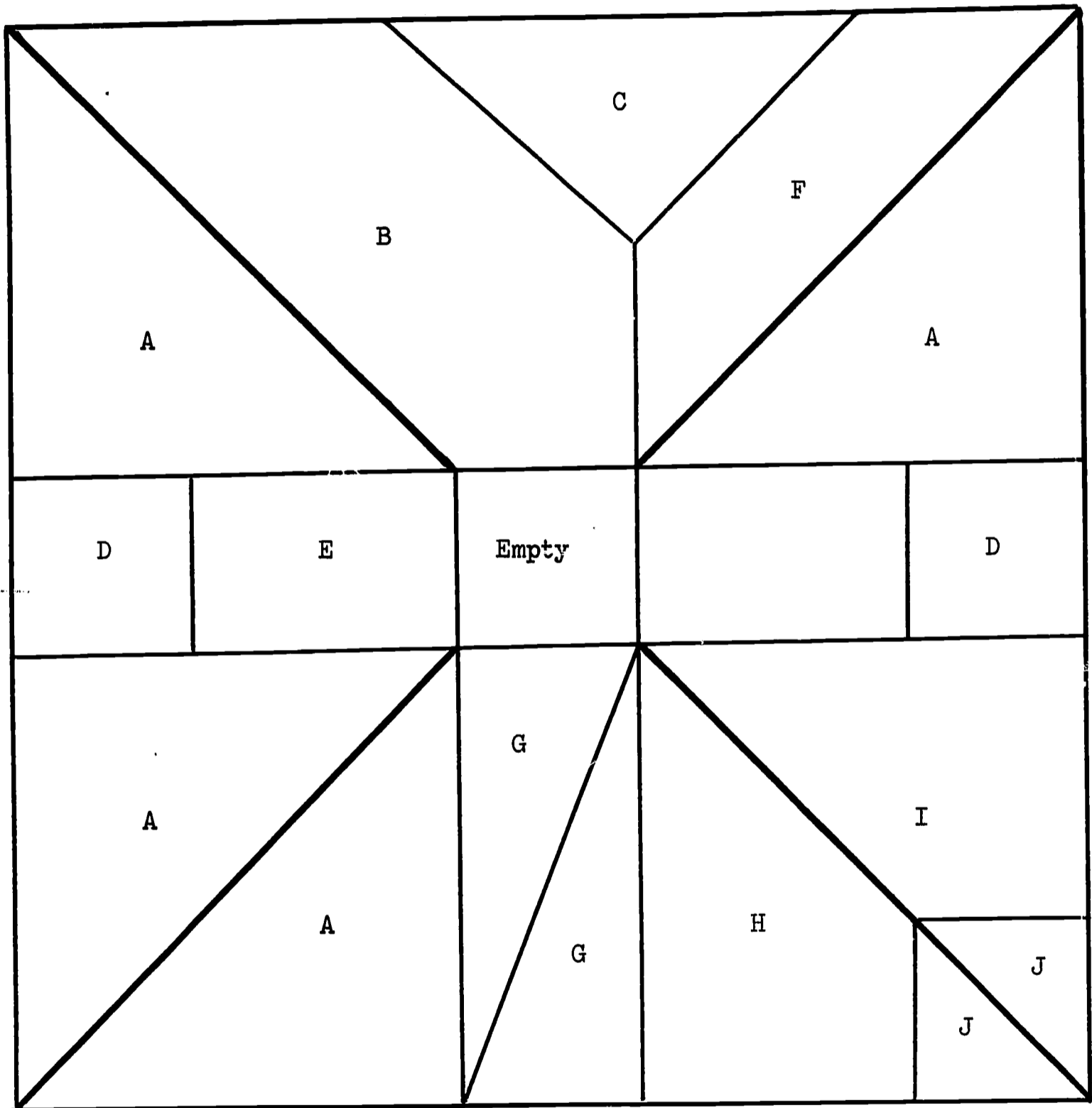
In placing the pieces in four piles on the table, the exact distribution is not crucial. As an example, using the letters in Figure 2-8 to identify the pieces (the pieces should not have any labels actually marked on them), one way to make four piles of the pieces would be as follows:

- 1: A, B, I, G
- 2: A, C, D, H
- 3: A, D, F, J
- 4: A, E, J

The key restriction on the planning group is that individual members are not to put the puzzle together themselves but are to think through the most efficient way in which the pieces can be arranged in a minimum of time to make the design. They cannot move pieces themselves; they are only to plan. They are not permitted to give a drawing of the over-all design to the operating team. The operating team for each planning group leaves the room before the planning begins. They have no notion of what the exercise consists, and while they wait for instructions in a previously designated room, they spend the time thinking about and writing out their impressions of how it feels to wait to be called upon to do an unknown task. In the meantime, the planning team is given a written set of instructions which tells them they have forty-five minutes in which to do two things -- to plan how to fit the pieces to complete the puzzle and secondly, to instruct their operating team how to do this job. Precisely after forty-five minutes, the time is called and the operators must go into operation with no further instructions or help available from the planners. Observers watch

Figure 2-8

## The Hollow Square



both the operating team and the planning team, noting those things which help and hinder the process at the planning, the communicating, and the implementing stages. A more detailed description of this exercise follows.\*

#### Step-by-Step Procedure

a. The trainer states that this is a simulation in which planners instruct operators to carry out a task. He divides the group into four-person planning teams and four-person operating teams and observers. Observers step out of the room to be briefed by the trainer, operators step out into the adjoining waiting room. Planners begin to meet around their tables just to get acquainted.

b. The trainer briefs observers out of earshot of both the planners and operating teams on what to look for in the planning, communicating, and implementing stages of the exercise.

c. The trainer hands out briefing sheets and puzzle materials to planning teams. He reads through the briefing sheets orally and planners begin their task. He emphasizes the time at which they must conclude their planning. The planning gets underway.

d. The trainer then goes to the room where operating teams wait to tell them of their task during the waiting period. Essentially, this is to discuss

(1) how they feel while waiting to be instructed, and

(2) how a person can prepare himself for an unknown task.

they are told that their planning teams may summon them to the room at any time, but if they are not called in prior to five minutes before the

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\*We are indebted to Warren Schmidt for the general design of this exercise, and for some of the information about the activity which typically follows it.

starting of the task, they are to "report for work" anyway.

e. When the planning is completed, the planning teams call in the operating teams to give them their instructions.

f. The trainer calls time to begin and instructs planners to step back from the table and to remain silent as the operating teams begin.

g. Operators complete the task, according to their instructions, taking as much time as necessary.

h. Discussion. This includes reports from the observers, from planners, from operators, and the discussion of similarities between the exercises and other experience.

Other aids for the Hollow Square are shown in Figures 2-9 and 2-10. Here are some kinds of learning that typically take place during the hollow square exercise:

1. Planners tend to put limitations on themselves which are not inherent in the instructions, thereby making their task more difficult.

2. There is considerable frustration in planning something which someone else has to carry out when you yourself are restricted from doing the operation.

3. Planning is a very seductive task which so absorbs the interest and attention of planners that they tend to forget what their operating team is experiencing. Operators tend to be anxious because the task is unknown, but this concern does not enter the minds of the planners.

4. Planners often fail to use all the resources at their disposal to solve the problem.

5. Planners frequently spend so much time planning the activity that they do not allow sufficient time to communicate their plans adequately

## Figure 2-9

## HOLLOW SQUARE

## BRIEFING SHEET FOR PLANNING TEAM

Each of you will be given a packet containing cardboard pieces which, when properly assembled, will make a hollow square design.

Your Task

During a period of 45 minutes you are to do the following:

1. Plan how the 18 pieces distributed among you should be assembled to make the design.
2. Instruct your OPERATING TEAM on how to implement your plan (you may begin instructing your OPERATING TEAM at any time during the 45 minute period -- but no later than 5 minutes before they are to begin the assembling process).

General Rules

1. You must keep all pieces you have in front of you at all times.
2. You may not touch or trade pieces with other members of your team during the planning or instructing phase.
3. You may not show the sheet with the detailed design to the OPERATING TEAM at any time.
4. You may not assemble the entire square at any time (this is to be left to your OPERATING TEAM).
5. You are not to mark on any of the pieces.
6. Members of your OPERATING TEAM must also observe the above rules until the signal is given to begin the assembling.
7. When time is called for your OPERATING TEAM to begin assembling the pieces you may give no further instructions, but are to observe the operation.



## Figure 2-10

## HOLLOW SQUARE

## BRIEFING SHEET FOR OPERATING TEAM

1. You will have responsibility for carrying out a task for four people according to instructions given by your PLANNING TEAM. Your PLANNING TEAM may call you in for instructions at any time. If they do not summon you before \_\_\_\_\_ you are to report to them anyway. Your task is scheduled to begin promptly at \_\_\_\_\_ after which no further instructions from your PLANNING TEAM can be given. You are to finish the assigned task as rapidly as possible.
2. During the period when you are waiting for a call from your PLANNING TEAM it is suggested that you discuss and make notes on the following:
  - a. The feelings and concerns which you experience while waiting for instructions for the unknown task.
  - b. Your suggestions on how a person might prepare to receive instructions.
3. The notes on the above will be helpful during the work group discussions following the completion of your task.

to the implementers, with the result that a good deal of the planning effort is wasted.

6. In communicating a plan to the operating team, planners frequently fail to take into account the operators' anxieties, their needs for being physically comfortable in the environment, and so forth. In other words, their preoccupation with giving information under pressure tends to blind them to the needs which the operating team is experiencing, which is likely to reduce communication.

7. Planners frequently use an inefficient means for communicating their instructions -- that is, they frequently depend on instructions in writing, which are very cumbersome, rather than taking the time to give oral instruction.

8. Operators tend to develop some feelings of antagonism toward their planners while they are waiting for their instructions. This is particularly true with operating teams who are called into the room late by their planners after seeing the other operating teams being called in earlier. Sometimes operating teams set up their own organizational structure, that is, they select a leader who is to receive instructions and then give them guidance, but this whole structure is ignored by the planners who never suspect such an organization exists.

The participants can be urged to think of the planners as administrators or department heads and the operators as analogous to teachers.

There are considerable discrepancies in the time groups take to complete the active part of the problem. After completion, the discussion should focus on parallels between the participants' reactions during the exercise and the ways they worked with each other in the ordinary school situation.

Some questions to guide the discussions are:

- (1) What parallels did you notice between this exercise and what goes on in our school?
- (2) What happened in the exercise that was similar to or different from the way we do things in the school?
- (3) What could have been done by the planners or by the operators to improve on the performance of your group during the exercise?
- (4) Are any of the things discussed in Question 3 courses of action that might be taken to improve the organizational functioning of our school?

## Chapter 3

### EXERCISES IN CLARIFYING ROLES

#### Goal Clarity and Agreement

Productivity is often diminished in groups and organizations in which goals or values are unclear or unshared. Likewise, in schools where staff members do not know about or agree with one another's values, a large amount of energy is spent in interpersonal conflict. Problems of goal ambiguity are widespread in education principally because educational goals are stated abstractly and little effort goes into their precise measurement. Perhaps the most significant contribution of programmed instruction has been the pressure it has put on educators to define so-called terminal states, behaviorally, concretely, and specifically. Experiences that teachers have had in building programs for their students have been useful in sharpening their perceptions for the need of clear and concise goals (Mager, 1962). Often perceived disagreements disappear when there is increased clarity of goals among members of a school staff, but, of course, real value differences may also continue to exist. Group procedures are needed, then, to explore goal differences, to help the staff become more accurate about the differences and to assist staff members in being open about differences and in learning to live creatively with them.

Early in the school year, perhaps during the week before school begins, each staff member might be asked to prepare a list of his four most cherished educational goals. This can be implemented by allowing complete freedom of choice or by suggesting educational goals from which to choose.

The Cooperative Project in Educational Development has developed a list of goals that are shown in Figure 3-1. The examples of goals shown in Figure 3-1 are only suggestive. Some are relevant only for high schools, while others apply only to elementary schools. The school administrator should choose those that are most relevant for his staff. Whatever procedure is used, it is important to have each staff member indicate the order of importance and to specify how he might go about measuring the achievement of his goals. Multiple copies of the lists can be produced so that staff members receive all lists and learn what their colleagues have expressed.

At a staff meeting, small groups of eight are formed for discussion of goals. Staff members are asked to group themselves with at least one colleague they think has similar goals and with one who may have some dissimilar goals or priorities. Before the discussion begins, staff members are asked to guess privately the priority list of goals he thinks each of the others in his group may have prepared. Next, the small group of eight divides into four pairs to discuss within the pairs how each perceived the other's goals. A question for discussion is, "What was it about my behavior which gave you the idea that I would rank the goals in that way?" Two pairs work together. One pair discusses perceptions of goals, while the other observes the pair and reacts to how clearly they are communicating and understanding each other. A round-robin design can be worked out so that all persons become aware of the perceptions of all others in the groups of eight.

Next the four pairs come together to discuss any issues that have arisen in trying to estimate one another's goals and preferences. Two members of each small group are nominated by the group to record the group's discussion and to report back later to the entire staff about

Figure 3-1

Questionnaire from Cooperative Project in Educational  
Development for Measuring Goal Preferences of Staff Members

A school system cannot be all things to all people. Considering the staff in your school system, the financial support for the system, the kinds of children who attend the schools, and the attitudes of the community, what would you feel are the four primary objectives toward which effort should be put in your school during the next two years? Put 1 by the most important, 2 by the next most, 3 by the next most important, and 4 for the next most important. Use only the numbers 1, 2, 3, and 4 to show the four goals you think are most important. Leave the other items blank.

1. \_\_\_\_\_ Reducing the dropout rate.
2. \_\_\_\_\_ Improving attention to basic skills in the first three grades.
3. \_\_\_\_\_ Improving attention to physical health and safety of students.
4. \_\_\_\_\_ Increasing children's motivation and desire to learn.
5. \_\_\_\_\_ Improving learning opportunities for disadvantaged children.
6. \_\_\_\_\_ Increasing the percentage of college attendance by seniors.
7. \_\_\_\_\_ Improving discipline and the behavior of "difficult" children.
8. \_\_\_\_\_ Improving the quality of student academic achievement at all levels.
9. \_\_\_\_\_ Improving children's adherence to moral, ethical, and patriotic standards.
10. \_\_\_\_\_ Improving learning opportunities for gifted or talented children.

their group's discussion. To insure that the reporting is done from more than one viewpoint, the trainer might suggest that two persons be chosen as observers who were very different in their goals, or two who had considerable difficulty in estimating each other's goals.

After the small group discussions are completed, the group reporters are asked to move to the center of the room with the rest of the staff sitting in fishbowl style. The reporters discuss problems their group experienced in estimating one another's goals and preferences. They also report on the goals for which there was agreement. The staff on the outside observes the interpersonal processes and feelings of those on the inside. After some discussion, the outside group is invited to comment on the processes they saw occurring in the inside groups, especially in terms of how similar or different the inside group was from their own previous small group of eight. Finally, all staff members are asked to write down their four most cherished goals for education as they view them after the reporter's discussion. These are tallied by the reporters, mimeographed, and copies are given to all staff members. Differences are welcomed as issues for continued discussion and debate.

#### Communication Clarity No. 1

Clear communication is a persistent problem in complex organizations and is especially acute in schools where staff members are structurally separated for most of the day. Two activities have proven useful in encouraging staffs to deal openly and publically with communication difficulties.

Communication can be described as either one-way or two-way. One-way communication takes place when announcements come over the

loudspeaker from the principal's office, when a memorandum or newsletter is circulated, or when a curriculum committee circulates a report to other staff members. Face-to-face discussions in which questions can be raised, clarification requested, and feedback given are two-way communication. Many face-to-face discussions actually are one-way, however, especially when staff members sit passively listening to another make a presentation. One organizational problem in schools seems to revolve around developing expectations and skills for increased two-way interaction. The group activity that follows can be carried out in a short period of time and can serve as a springboard for discussions on communication in the school.\*

At a meeting of the entire school staff held in a very large room, the staff is divided into groups of eight, each group moving to a place far enough away from the others so the groups cannot hear one another. One member of each group is chosen as coordinator and another is asked to be the communication sender. The remaining six members are receivers. The coordinator signals when to begin, keeps track of how much time is spent during each phase of the activity, and makes observations of the receivers' non-verbal reactions.

To commence the activity, the coordinator gives two geometric patterns of rectangles to the sender, being careful not to show them to the receivers. The two patterns of rectangles, shown in Figure 3-2, are equal in complexity. One pattern is presented to the receivers in a one-way fashion; the other is given by two-way interaction. During both communications the sender sits with his back to the receivers so

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\*More detailed information about this communication exercise can be found in Bass (1966).



that facial cues and hand movements do not influence the process. The receivers are asked to draw the patterns as accurately as possible. During one-way communication, they can ask no questions and must remain silent. In two-way communication, on the other hand, the receivers are encouraged to break in at any time, to raise questions, and to interact verbally with the sender.

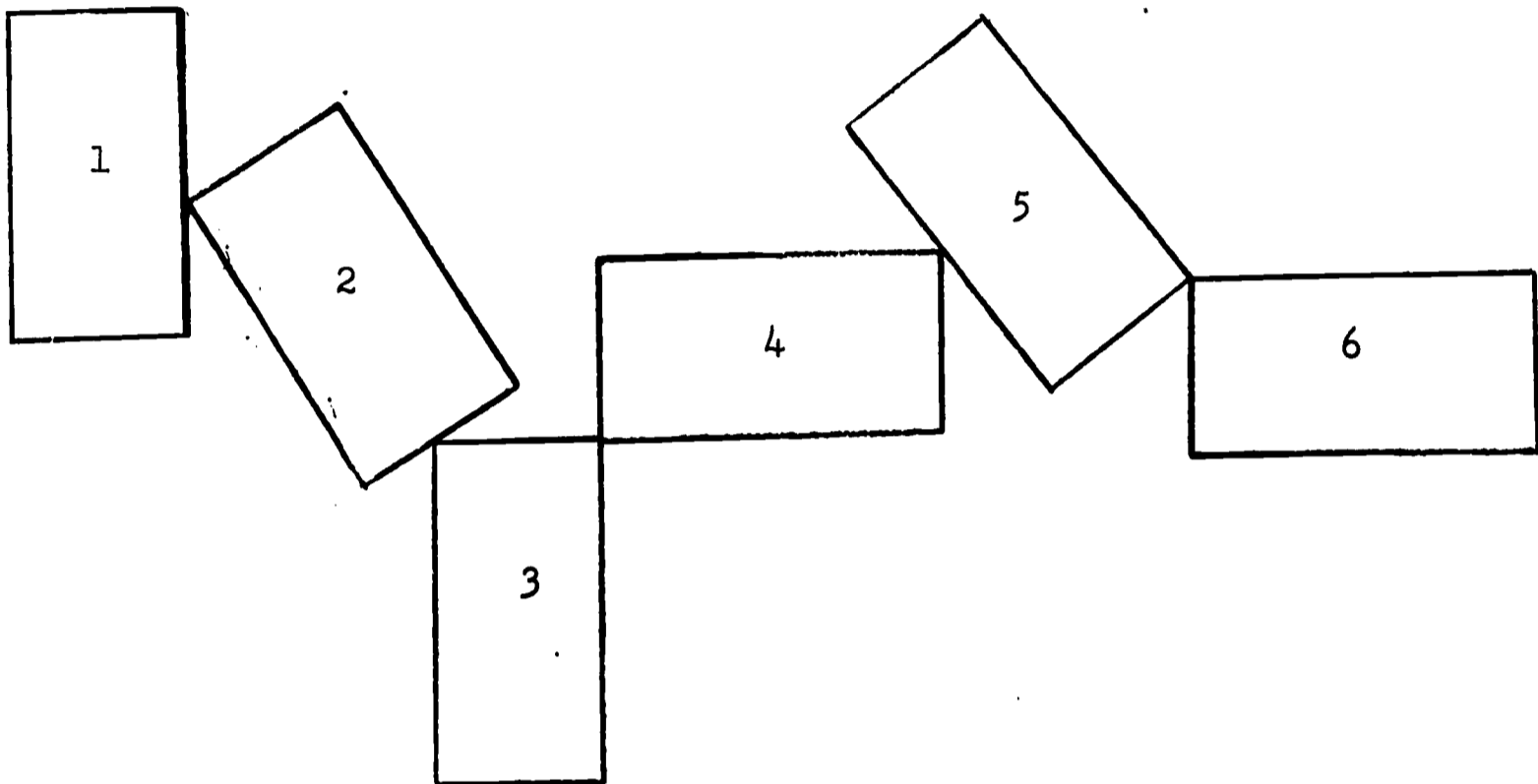
After the two communication episodes are completed, the coordinator assists the receivers in determining the number of correct placements in their drawings. A correct rectangle touches one or two other rectangles at the matching location on the sides of the other rectangles. It also should be oriented vertically, horizontally, or diagonally as on the sender's page. One point is granted when two rectangles touch at the correct point, making five in all. One additional point is granted for correct orientations of the rectangles. Scores then can range from 0 to 6 for each communication episode.

After each receiver scores his own drawings, the receivers and the senders might be asked to answer the following questions for discussion. With which communication were you most satisfied? With which communication were you most frustrated or tense? Which type would you prefer to use as a sender? Which type would you prefer to receive? (For each question, three alternative answers are possible: one-way, two-way, or no difference.)

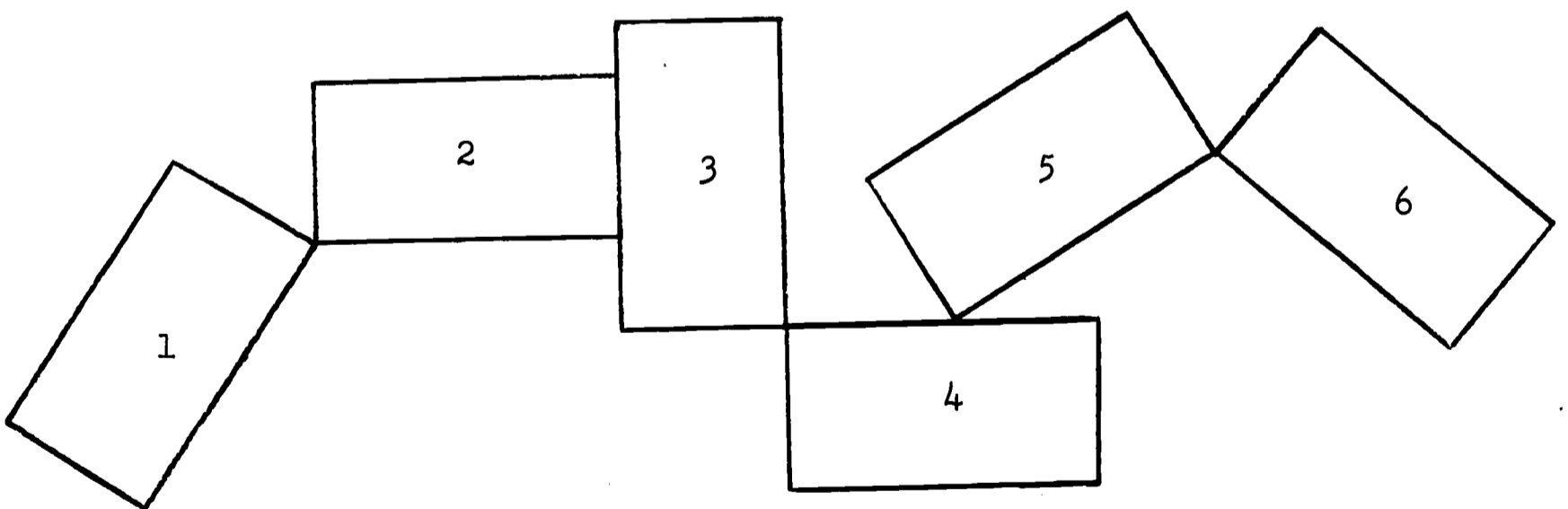
The ensuing discussion can be guided by the coordinator who can use the following questions as guides: When is one-way communication efficient in our school and how might we improve it? When is two-way

Figure 3-2

Geometric Patterns Used in One-Way and Two-Way  
Communication Activity



One-Way Communication



Two-Way Communication

communication necessary in our school and what can we do to improve our two-way communication? What are other implications of this activity for our school? What keeps us from using two-way communication more often in our school?

This activity is completed by asking each small group coordinator to report to the entire staff on the primary outcomes of his group. Then, all staff members can discuss what they learned from the activity and recommendations could be constituted for continued work on improving communication clarity in the school.

#### Communication Clarity No. 2

Another group procedure helpful in increasing communication clarity in schools is a listening activity. One rule must be followed: Before a person can contribute his own ideas or attitudes, he must use his own words to paraphrase what the last speaker said to that speaker's satisfaction. The steady flow of communication is interrupted by clarifying in one's own terms what the last speaker just communicated. This activity easily can be used as part of a regular meeting, especially as a means of exaggerating the difficulties in understanding one another. It may help, however, to spend a few minutes on the exercise before attempting to use it in a regular meeting.

The staff can be divided into groups of three persons with each person performing a different function: the communicator, the listener, and the observer. The communicator initiates, the listener paraphrases and asks questions, and the observer watches feelings expressed in the interaction and makes sure that the other two abide by the rule. A question given for discussion is: What communication difficulties

are we having in this school? One cycle of communication would be as follows: The communicator begins by attempting an answer to the discussion question. The listener then paraphrases in his own words what the communicator just said. He might preface his statement with such phrases as, "You said to me. . ." or "I heard you say. . ." If the communicator thinks the listener understood him, the listener can then ask the communicator any question to learn more about the ways in which the communicator views the discussion question. If the communicator thinks the listener did not understand him, the communicator must rephrase his original statement and then the listener must paraphrase again. After this cycle occurs several times, the observer would comment on what he saw in the interaction. He might focus on clarity of communication, accuracy of feedback, or on interpersonal and non-verbal expressions of feelings. This activity is repeated until each member has performed each of the three functions.

The next phase of this listening activity is for two trios to combine into a six-person group. Two persons are designated as observers, one is communicator, and three are listeners. After the communicator has spoken to the discussion question, he calls on one of the three listeners to paraphrase. The listeners do not know beforehand which will be called upon to paraphrase. Groups can continue to merge in this way until the entire staff is in one large group discussing the question. Gradually, the observer role as a formal designation drops out and all participants act as listeners and observers at the same time. For practical application, it is important that persons not speaking be able to function

in the listener and observer role spontaneously, as they believe the moment demands.

An alternative design begins with small five-person groups discussing communication problems in the school. One person is chosen as an observer-reporter who is to paraphrase and summarize what he hears the others saying in his group. After a few minutes, the observer-reporters move to the center of the room to form a discussion group. Other staff members sit in theatre-in-the-round style. The insiders attempt to reflect what their group colleagues saw as significant communication difficulties in the school. The staff members on the outside serve as observers, noting such group processes as clarity of ideas, congruency between verbal and non-verbal messages, and the expressions of interpersonal feelings. This activity is completed after the observers have discussed their observations of the inside group. This design has several advantages. It can be done very quickly and almost any issue significant to the staff can be used for discussion. In this particular case, both the content and the group processes simultaneously center on communication flow, emphasize clarity of ideas, and help the staff talk about feelings which often are at the core of communication difficulties.

Several group procedures that constitute parts of the above activities can be integrated easily and directly into staff meetings. For instance, staff meetings might begin with small groups of three or four discussing ideas and feelings about the issues to be raised during the meeting. Gradually, the small groups can be merged until the entire

group is meeting and discussing together. Similar small group discussion also can be used during a meeting, especially when important decisions have to be made and some staff members are reticent to express their contrary views or negative feelings. In such cases, small groups might have reporters who are asked to summarize the ideas and feelings of their group without indicating which persons expressed them. Eventually, such input contributes to more open communication in the group.

Another useful procedure involves a theatre-in-the-round format in which one group sits within the circle made by a larger group of observers. Some schools have used such a design during principals' meetings with heads of departments or for significant curriculum committee meetings. The inside group can have two additional chairs in their circle for "visitors" from the outside group. An outside observer who wishes to contribute to the inside group's discussion enters the inside group, sits in one of the vacant chairs, and waits for an opening to make a contribution. Once his input is complete, he goes back to his chair in the outside group. About every twenty or thirty minutes, the outside group is asked to comment in general on what they have seen and heard during the discussion. Only a very short time should be spent in this way. Then the inside group can proceed in its meeting, perhaps making use of the contributions of the outsiders. Naturally such procedures can be modified in many ways to fit a particular school. They seem to increase communication flow and clarity as well as interest and commitment to total school affairs.

#### Decision-Making Clarity

A problem that interferes with the smooth functioning of a

school is lack of clarity about decision making. The following exercise is a vehicle for achieving group agreements about the roles each member takes in decision making. The exercise employs a decision-making chart which originated with John Wallen, a social psychologist with the Northwest Regional Educational Laboratory. The chart is a matrix in which the columns represent different roles or status levels in the organization such as principal, assistant principal, counselors, teachers, service personnel, and students. The rows of the matrix represent points at which decisions need to be made. In developing a curriculum, for instance, some decision-points might be determining the goals, specifying the procedures, ordering materials, storing materials, sequencing the procedures, etc. The chart below illustrates the format.

	Principal	Assistant principal	Counselors	Teachers	Service Personnel	Students
Determining goals	-----	-----	-----	-----	-----	-----
Specifying procedures	-----	-----	-----	-----	-----	-----
Ordering materials	-----	-----	-----	-----	-----	-----
Storing materials	-----	-----	-----	-----	-----	-----
Sequencing procedures	-----	-----	-----	-----	-----	-----

The group is next presented with five possible kinds of influence that any given role unit would have in relation to each decision-point. The group is to complete the matrix by discussing the appropriate

kinds of influence for each cell of the matrix; that is, the appropriate kinds of influence for each role at each decision-point. The kinds of influence presented for use with the matrix are as follows:

#### Kinds of Influence

Label  
Code

- Blank     May recommend or suggest. In a healthy organization, it should be understood that any person may make recommendations to the person who can authorize action. Because this is assumed for all positions, the cell in the chart is left blank.
- I     Must be informed. "I" means the position needs to know the result of a decision so that appropriate coordinating action can be taken. The "I" usually shows that a position will be affected by a decision, or that the person in the position will have to implement the decision.
- C     Must be consulted. The position must be given opportunity to influence the process of arriving at a decision by presenting information, demonstration, or proof. A "C" position should be consulted early enough in the process that information from the occupant can make a genuine difference in the final decision.
- A     Approval must be obtained. The position must be consulted and, in addition, may veto a proposed decision. Obviously, early participation of "A" is desirable because consultation earlier may make a veto in the final stages unnecessary. If an "A" position approves a proposal, this is a recommendation



for the course of action. That is, the action may be taken, but it does not have to be. If an "A" position disapproves, the proposal cannot be put into effect and must be altered to gain approval.

Z May authorize. To authorize is to issue a directive that triggers action. "Z" positions are held accountable for:

1. Initiating proposals.
2. Coordinating; i.e., insuring that "A" and "C" positions participate.
3. Insuring that "I" positions are informed of the decisions.
4. Issuing directives that trigger the carrying out of decisions.

## Chapter 4

### EXERCISES IN ORGANIZATIONAL PARTICIPATION

#### Dispersed Influence Structure

The group processes described may also increase the diffusion of influence potential of the staff because communication in some form is necessary for interpersonal influence. Organizing staff and committee meetings so that communication flow and participation are increased will assist more persons in being influential. Often, however, increased communication is not sufficient and more direct attempts must be made to disperse influence potential. The following group procedures may be useful ways of helping a staff to confront directly issues of greatly unbalanced influence in the group.

The first procedure can be tried during a staff or committee meeting in which total group participation is expected.\* The procedure involves dropping out of a discussion after having spoken for a predetermined amount of time. Some one member of the staff coordinates the process and walks around behind the group, tapping persons on the shoulder as a signal that they should move back from the group and stop talking. The activity seems to be most valuable when very significant topics are being discussed by the group. Perhaps the staff is deciding on school rules, certain curriculum matters, or even the important educational goals appropriate for the school. Whatever the topic, every

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\*This activity was developed by staff members of the Highland Park Junior High School in Beaverton, Oregon. See Schmuck and Runkel (in press).

attempt should be made to insure that it is potentially important to all staff members.

At the signal of the coordinator, the person touched or otherwise signalled drops out of the discussion by moving his chair back a few feet. He is then not to participate any more even if asked a question. When only two persons are left and they have had a chance to contribute, the entire group discusses feelings and responses to the process. Often, such an activity facilitates the confrontation of a set of established patterns for discussion and decision making. Such a confrontation can offer an opportunity to discuss reasons behind low influence and perhaps increase the number of persons involved in decision making.

An alternative design might be used at a staff meeting to encourage increased influence among the low participants. In this activity, staff members are asked to categorize themselves according to how much they view themselves talking at staff meetings. The three categories are high talkers, moderate talkers, and low talkers. The staff must divide itself into three equal groups representing these three categories, each sub-group moving to a different part of the room. Often different perceptions exist about who belongs in the three groups. Members discuss what persons should be in the three groups whenever differences of opinion arise. Then each group discusses regular items on the meeting agenda in the presence of the other two groups who are sitting in theatre-in-the-round style. In this way, persons have the opportunity to see how persons of high, middle, and low talkativeness deal with issues and what the communicative problems are in these three groups. Evidence from research shows that the highly talkative persons

typically get the lion's share of attention from others, including their own kind. The same body of research also shows that worthwhile contributions from low-talkers often get buried or inhibited by the profusion of talk from the high-talkers, and not only the high-talkers but the low-talkers themselves come to believe that the low-talkers have little to offer. Asking high-talkers to be quiet while the low-talkers talk can expand the possibilities for listening and for interaction. Finally, the entire staff merges and completes the agenda of the meeting.

Staff members may influence one another in many different ways, but two sets of group functions, task and maintenance, are necessary for an effective staff meeting (Benne and Sheats, 1948). Task functions apply to completing the work requirements of the meeting, while maintenance functions help the group with its internal cohesion and interpersonal feelings. Ideally, most, if not all, staff members should be capable of performing both task and maintenance functions. Unfortunately, usually only a few persons perform task functions and even fewer perform maintenance functions. Some examples of task functions are: initiating ideas on work procedures, seeking information or opinions from others, giving information or opinions, and summarizing what has gone on in the meeting. Some maintenance functions, on the other hand, would be seeing that others have a chance to speak, attempting to reconcile disagreements, sensing group mood, and being warm and responsive to others. A more complete list is shown in Figure 4-1 in the form of an observation schedule.

Figure 4-1

Task and Maintenance Functions for Observations

Task Functions Persons' Initials

1. <u>Initiating</u> : Proposing tasks or goals; defining a group problem; suggesting a procedure for solving a problem; suggesting other ideas for consideration.						
2. <u>Information or opinion seeking</u> : Requesting facts on the problem; seeking relevant information; asking for suggestions and ideas.						
3. <u>Information or opinion giving</u> : Offering facts; providing relevant information; stating a belief; giving suggestions or ideas.						
4. <u>Clarifying or elaborating</u> : Interpreting or reflecting ideas or suggestions; clearing up confusion; indicating alternatives and issues before the group; giving examples.						
5. <u>Summarizing</u> : Pulling related ideas together; restating suggestions after the group has discussed them.						
6. <u>Consensus Testing</u> : Sending up "trial balloons" to see if group is nearing a conclusion; agreement has been reached.						
<b>Maintenance Functions</b>						
7. <u>Encouraging</u> : Being friendly, warm and responsive to others; accepting others and their contributions; listening; showing regard for others by giving them an opportunity or recognition.						
8. <u>Expressing group feelings</u> : Sensing feeling, mood, relationships within the group; sharing his own feelings with other members.						
9. <u>Harmonizing</u> : Attempting to reconcile disagreements; reducing tension through "pouring oil on troubled waters"; getting people to explore their differences.						
10. <u>Compromising</u> : Offering to compromise his own position, ideas, or status; admitting error; disciplining himself to help maintain the group.						
11. <u>Gate-keeping</u> : Seeing that others have a chance to speak; keeping the discussion a group discussion rather than a 1, 2, or 3-way conversation.						
12. <u>Setting standards</u> : Expressing standards that will help group to achieve; applying standards in evaluating group functioning and production.						

At a staff meeting, simultaneous use might be made of the high-talker-low-talker format and of these task and maintenance functions. After the staff has divided into three equal groups of high-talkers, moderate talkers, and low-talkers, there are twice as many observers as participants in the theatre-in-the-round. Each inside participant can have two colleagues on the outside observing and consulting with him. One observer would watch for task functions while the other would look for maintenance functions. Each could then give feedback to the inside participant on the functions he did or did not carry out in the group. If such a procedure is carried out several times, it is possible for the person being observed to tell his observer about several functions he would like to try. Then, in subsequent observations or meetings, the observers could give feedback on whether they have seen the observed person trying out those functions. Perhaps one of the most significant concepts to learn in such an activity is that many contributions are influential and helpful to the group even when not directly focused on the task. Moreover, as more and more staff members learn how to keep the discussion within the group rather than as a one, two, or three-way conversation, the dispersion of influence is likely to increase.

#### Group Cohesiveness

Cohesiveness refers to the sum total of positive feelings held by every member for the rest of the staff. A member who holds positive feelings toward others on the staff is more likely to communicate

often with others, to be more open in expressing his feelings, and to attempt influence more often. One reason that a staff member may not feel close to his colleagues is his belief that others do not hold him in high esteem or see him as contributing anything of value. Successful effort to raise the esteem levels of the staff members will increase group cohesiveness and probably also increase their sharing of goals, their clarity of communication, and the dispersion of influence.

An activity that can raise members' self-esteem and contribute to group cohesiveness is a "strength" exercise, sometimes referred to as an "up with people" activity. The staff divides into small groups of seven or eight. Each small group member spends time thinking alone about his own strengths as a staff member and the strengths he views in the others in the group. No admissions or observations of weaknesses are allowed. The time spent alone is followed by a sharing of perceptions on strengths within the small group. It is important to emphasize strengths viewed in oneself as well as in one another. It is also important for every person to have his turn so that strengths are identified for everyone on the staff.

The activity can end with a general discussion involving the entire staff. Some of the following questions might guide the discussion:

1. What strengths were revealed on the staff of which you were not aware?
2. What strengths are not being used enough?
3. What can we do to make better uses of the strengths we do have?

## Chapter 5

### EXERCISES IN PROBLEM SOLVING

#### Organizational Problems

It is important to build norms that support active problem solving in groups on a school staff. A staff that has not yet recognized the power of group problem solving could commence the development of supportive norms for such activity by employing the Moon Exercise described in Chapter 2. The Moon Exercise emphasizes the importance of using everyone's resources in a group, especially when the problem is complex and the solution requires coordination and joint effort. It effectively sets the stage for further work on problem solving in groups.

A norm of authenticity and openness among staff members might be encouraged through sharing problems at a staff meeting. Each staff member might start by thinking about some concrete problem he is experiencing in the school. Then, each person prepares a statement of his problem which he writes in large letters on newsprint paper for display on the walls of a large meeting room such as a gymnasium. The statement of problem must include an expression of the person's own feelings about the issue and any ways in which he sees himself involved in the problem. The statement should include some of these points:

1. What is the problem?
2. Are there other roles involved in some way? How do they relate to the problem?



3. Are there other factors that are relevant to understanding the problem?
4. If you had the power to change any aspect of the problem (but not to eliminate it), what aspect would you choose? You can pick only one aspect.

The staff circulates around the large room, viewing the problems that others have presented and taking note of those for which they might provide resources for solutions. Following this, the staff members organize into small resource-groups to assist one another in problem solving. The most significant criterion for grouping should be the possession of some resources to help at least one other colleague in that group with his problem.

A procedure for increasing the problem-solving skills of the staff members would be to complete a scientific problem-solving scheme within these newly-formed resource groups. The scheme involves five rather detailed stages (Schmuck, Chesler, and Lippitt, 1966).

1. Statement of the problem (as described above).
2. Diagnosis by means of a force-field analysis.
3. Brainstorming to find alternative actions.
4. Designing concrete plans of action.
5. Trying out the plan through a simulated activity.

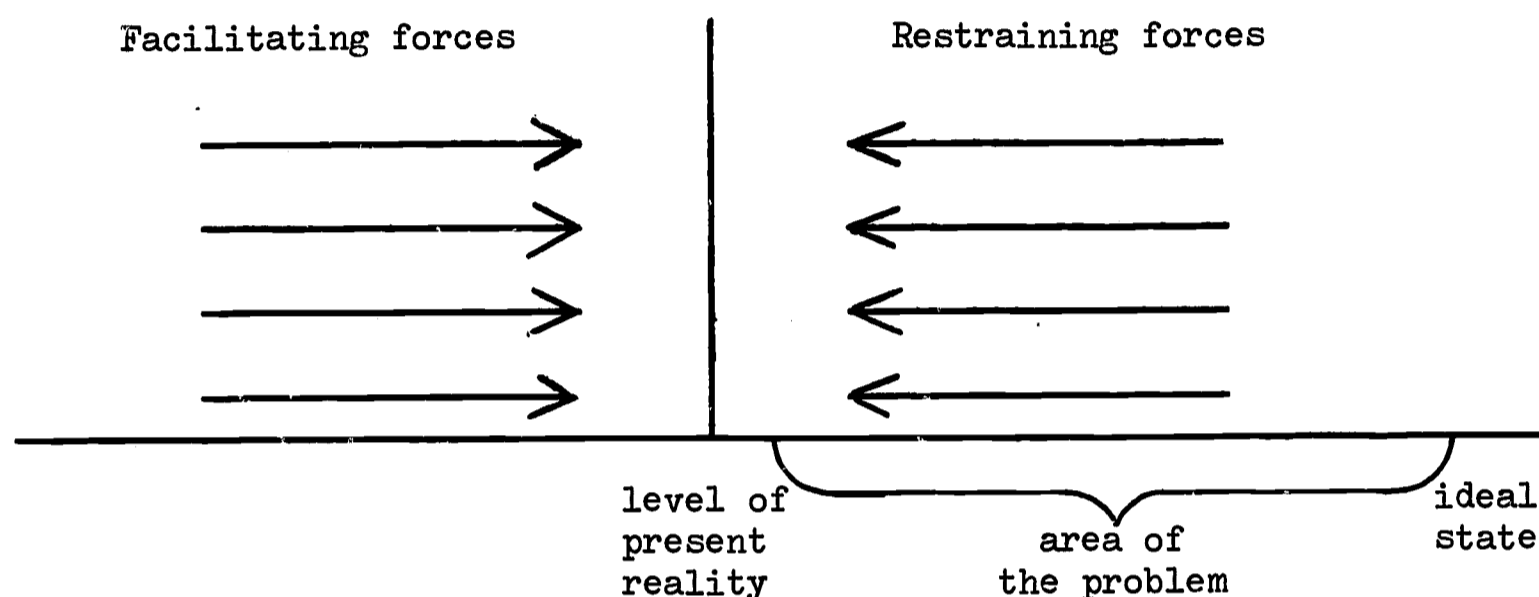
#### Stage One:

First, each staff member must concretely define his problem, making provisions within his statement for his own involvement as well as his feelings about the problem.

Stage Two:

For the next step, a field-of-forces analysis is prepared as illustrated below.

Figure 5-1. Field-of-Forces Analysis



It is widely assumed by social psychologists that even when a group exhibits a stable way of doing things, there are numerous forces at work within the group and within its environment, some of which contribute to the maintenance of the group's stable pattern and some of which prevent the group from changing. There are not only forces that restrain the pattern from change, but also forces that would facilitate change on the part of the group were it not for the forces maintaining the present pattern and restraining the group from trying new patterns. A principle to be considered in bringing about change in groups is that the forces that act to maintain present ways of doing things in a group are also forces to which the individuals have adapted themselves in other ways. Changing the balance of the forces in a group not only requires change on the part of the individuals in the group to find a

new way of interacting with each other, it also requires adaptations on the parts of the individuals concerning, for example, personal routines, their conceptions of their capabilities or their own values, or even their mannerisms, such as posture and gestures during speech. As a result of this kind of consideration, it is generally conceded that trying to bring about change by adding to the forces making for change is a technique that complicates the total interlacing of forces, heightens the total tensions of the forces straining against each other, and encounters relatively more side effects when the system begins to move. Reducing the restraining forces, on the other hand, reduces the total tensions involved, simplifies the network of interacting forces and reduces the relative number of side effects that may be encountered.

The following points are guides for this second phase of the problem-solving sequence:

Thinking of the present state of the problem as a balance between opposing forces, try to list all the forces on one side of the issue. Now list all forces on the other side. (In the present state of world affairs, suppose that daily events are the result of U. S. forces and U.S.S.R. forces: these are the two "sides.")

Go back and think about how important each force seems to you. If it seems very important, put a 5 next to it in the left hand margin. If it seems not very important, put a 1 next to it in the left hand margin. Do the same for 2, 3, or 4, depending on how the force being described appears to you.

In the problem-solving sequence we are describing, the

participants are asked to list both the forces that facilitate change toward the ideal state and those that restrain change; but, following the reasoning above, the sequence calls for ways to reduce the restraining forces rather than for ways to increase the facilitating forces.

Stage Three:

The third step in the problem-solving sequence is to "brainstorm" ways of decreasing strength of the restraining forces. Emphasis is put on reducing forces because this emphasis is more likely to support effective change. Brainstorming involves thinking up many different ideas, sometimes wild ideas, without evaluation. After the brainstorming is concluded, the person with the problem should judge which ideas are feasible and which ones he should forget about for the present. Both brainstorming and force-field analysis encourage a norm of seeking a variety of solutions before making a decision.

Stage Four and Five:

The fourth step involves designing some concrete plans of action for solving the problem, primarily plans designed to reduce restraining forces. Others in the group give consultative assistance, and if it is appropriate, facilitate a try-out by role-playing or simulating the activity. Finally, feedback is given about the plan by other members of the staff, and the plan is tried out.

## Chapter 6

### PROCEDURES FOR IMPROVING MEETINGS

Procedures differ from exercises in that the former can be employed during a real meeting while the latter are devices for artificial laboratory gatherings. The procedures that follow aim to facilitate more effective meetings. They can be employed over and over again even by the most sophisticated group. Trainers from outside may or may not be used.

#### Fishbowl or theatre-in-the-round

We described some uses of the theatre-in-the-round arrangement in Chapter 3. The formation is also known as a "fishbowl." In this arrangement, one group forms on the inside of another observing group. Usually the group on the outside observes the insiders, the observers having been provided with particular observation categories to guide them.

A variation can be particularly useful in large groups. This is a fishbowl formation in which two or three empty chairs are left in the inside group and members of the outside group are invited to enter when they wish to communicate something to the insiders.

Figure 6-1 shows one possible formation for using the fishbowl technique with empty chairs. The members of a work group are shown here as x's within circles ( ⊗ ). Empty circles depict empty chairs.

The x's on the outside of the near-circle represent the audience. We have found it easier to observe the work group if they leave their circle somewhat open to the view of an audience. The empty chairs are left in the group so that participants from the audience can enter the work-group to make a contribution. Some designs call for the audience to be divided into observing sub-groups. For instance, in one follow-up session, we had the outsiders divided into those observing for task-centered processes, those observing for inter-personal processes, those observing for the forces that were helping and hindering the group from being productive, and finally, those observing how well group members were representing the views of others on the faculty.

In the fishbowl arrangement shown in Figure 6-2, members of an outer group sit behind the same number of members of an inner group. Each observer in the outer group watches the person facing him across the inner circle (as indicated by the arrows in the diagram). Various designs are possible, but one that is popular calls for the outsiders to observe insiders for perhaps 15 minutes, after which 5 or 10 minutes are given over to feedback from the observer to the observed person. One way to do this, especially with a group inexperienced in dealing with interpersonal processes, is for each observed-observer pair to go off where the two persons can talk without being heard easily by the others. Then the person being observed communicates an intention for action to his observer and the observer is asked to see if the intention can be fulfilled during the next work period--which might last about 30 minutes.

The observer watches the same person again, this time to see how he "comes across," especially as regards his stated intention. Next, another feedback period takes place. Finally, the outsiders observe the whole group to see how the persons function together. This final period of group work by the insiders continues for 15 minutes or so, after which the outsiders enter the middle to review what they saw going on in the other group. While they do this, the group that was previously on the inside sits around them on the outside. The entire process can be repeated with the group that was previously the observers now forming the work group.

The simple basis of the fishbowl formation is that a group begins to become more self-conscious and willing to improve its working relationships as it is able to open its processes to others, especially fellow staff members who have some interest in what happens in the observed group. Even though this format often involves anxiety and feeling of "being watched," the advantages seem to outweigh the disadvantages, at least after some trust and openness has been developed within a staff.

#### Posting Observers

While a group on the inside of a fishbowl is working, observers on the outside can observe the group processes within the inside group. Two sets of categories can be employed for the observation: (1) task-centered processes, and (2) interpersonal processes. Some useful sub-categories are as follows:

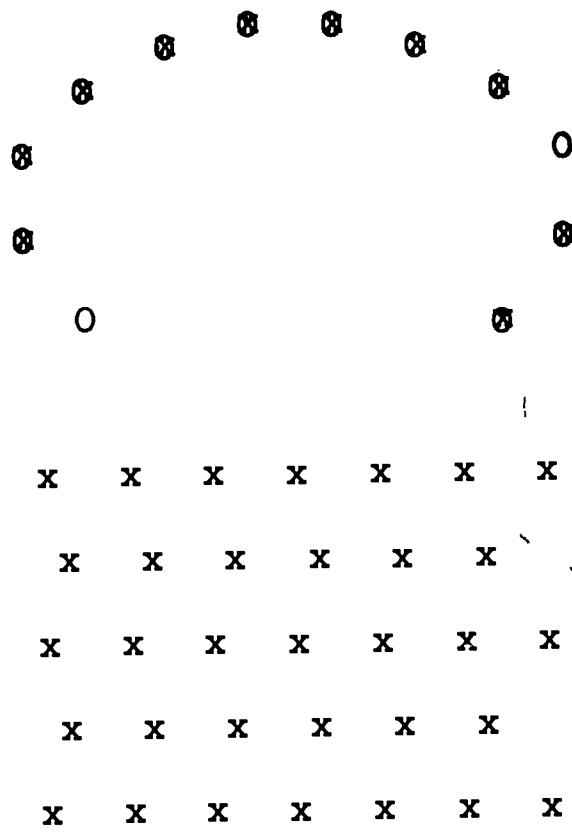


Figure 6-1. Fishbowl with chairs for outsiders

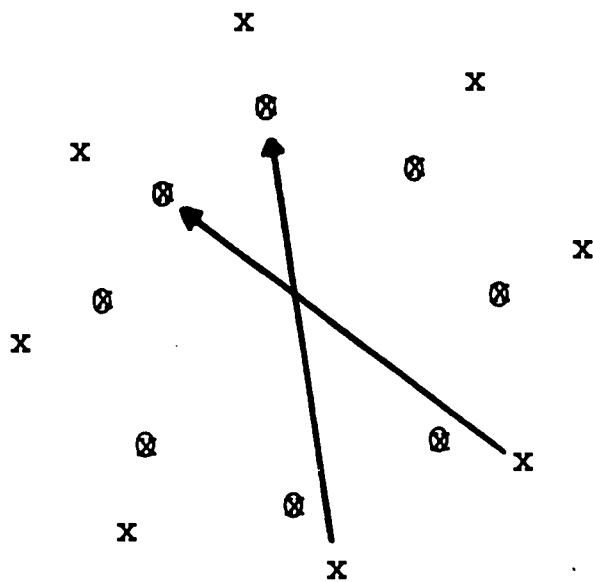


Figure 6-2. One-to-one fishbowl



### Task-Centered Processes

1. Helps group collect data related to task
  - a. Contributes data, defines terms, gives facts, states objectives, goals, gives opinions, and generalizations.
  - b. Asks questions, asks for survey.
  - c. Suggests actions, alternatives.
2. Helps group use data
  - d. Organizes data: combines, compares, points out relations in data.
  - e. Summarizes: identifies points of agreement and disagreement.
3. Tests for consensus
  - f. Checks to see if group agrees.

### Interpersonal Processes

1. Acts to increase shared understanding
  - a. Paraphrases, clarifies.
  - b. Makes perception checks.
  - c. Helps others paraphrase or make perception checks.
2. Acts to provide data about interpersonal processes
  - d. Describes interpersonal behavior.
  - e. Reports own feelings directly: positive feelings, negative feelings. Indirectly expressed feelings: favorable judgments, unfavorable judgments.
  - f. Helps others to describe interpersonal behavior or to report their own feelings directly.

### Buzz Groups

Many members of large groups have difficulty in participating

and responding during meetings. Just the sheer number of persons means that any one person's "air time" is limited. Also, people feel reticent to interject a comment or to make an extended contribution with many others listening. Buzz groups have been created to overcome barriers to participation in large groups.

Buzz groups are small groups of two to four persons who discuss an issue for a short time during a meeting. The room buzzes with voices because all of the small groups are in discussion simultaneously. One procedure for a staff meeting would be to begin with small groups of three or four discussing ideas and feelings about the issues to be raised during the meeting. Gradually, the small groups can be merged until the entire staff is meeting and discussing together. Buzz groups can also be used during a meeting, especially when important decisions have to be made and some staff members hesitate to express their contrary views or negative feelings. When negative feelings are difficult to bring out, the buzz groups might have reporters summarize the ideas and feelings of their groups without indicating which persons expressed them.

Buzz groups also can be employed at the end of a meeting to evaluate the accomplishments of the group and determine the business still unfinished. Small groups meet to discuss individual reactions to the session. One person, a recorder, takes down the reactions and at the same time summarizes them. Then these summaries can be handed to those who have leadership responsibilities for the session.

#### Link-pin Structure

Buzz groups are employed in order to increase participation

and communication at large meetings. Most events in organizations do not occur at meetings, however. The work of bureaucracies is carried out through role relations and isolated work groups. Likert (1961) has suggested a structural pattern to reduce problems created by such organizational complexity. His pattern, termed link-pin structure, assumes that a complex organization can capitalize on the power of the small face-to-face group by having work groups organized across hierarchical levels with persons participating in decisions at levels above and below their own. Such a pattern would be manifested in a school where the principal and department heads formed one decision-making and problem-solving group and where the department head and members of his department formed another level of groups. In this example, the department head is the critical link-pin in the school organization. It is important that he keeps communication flowing in a two-way fashion between the administration level and the level of teachers.

One way of highlighting the role of link-pins in the school organization is through an occasional fishbowl procedure. The principal and department heads meet in a circle in the middle of a large room. The teachers sit around this group. The teachers observe the inner group work and are especially alert to the ways in which their opinions and thoughts are being taken into consideration by the inner group. At planned intervals, the department head can return to his departmental membership to discuss his role performance in the inner group. Then the fishbowl can be resumed and the department heads can try once again to represent the members of their department.

## Chapter 7

## PLANNING ORGANIZATIONAL TRAINING

Certain principles should be carefully considered in planning for organizational training. The following list of assumptions is not exhaustive, but it includes some of the more important assumptions we make about organizational training. Any one of these assumptions could be converted to a hypothesis in future research.

1. If training is to help an organization to function more effectively as an organization, the training must require members to function in groups that bring together people who also encounter each other in their ordinary work, and that also bring together members whose communication might improve the operation of the organization. In brief, the training must be directed toward the organization as a unit and must take place by working with functional sub-groups during the training.
2. Transfer of skills to situations outside the training setting will be facilitated if participants, after having practiced the skills, then conceptualize them by talking with each other about what they have done and the possible application of the skills to other settings.
3. If the faculty is trained in a series of overlapping small groups, the individuals will be able to transfer the skills learned in

one group to the skills learned in the next group, and subsequently, to the groups in which they work ordinarily.

4. Application to ordinary daily work will be maximized if the faculty deals with real problems during part of its training.

5. The transfer to everyday work will be maximized if the training staff makes known its expectations that the faculty will continue problem-solving activities in its daily work after each training event.

6. Transfer to everyday work will be maximized if the training continues throughout the year.

7. Transfer to daily work will be maximized if each exercise is related to subsequent training events in a developmental sequence from simple to complex.

8. Communication within the faculty and the feeling of solidarity within the faculty will be increased if the training exercises bring every pair of faculty members into face-to-face interaction.

9. Differences in the power held by individuals within the organization could inhibit or distort communication in group work during the exercises. For example, a teacher may not say something to a principal, because he's a principal. Therefore, designs for group work must provide for overcoming this sort of inhibition or distortion and special training to overcome this barrier is sometimes in order for the most powerful parts of the faculty.

10. It will be easier for the members of the staff to practice new kinds of interpersonal skills if they undergo their first practice

in a setting different from their daily work, such as a laboratory experience in another setting.

#### Some Suggested Sequences of Exercises

We feel the sequence of training activities that is most likely to be successful for a school faculty lasts for at least one academic year (Schmuck and Runkel, in press). Ideally, it would commence with a week of organizational training followed by a series of short sessions during the school year. The first week would serve to free staff members from previous expectations of the proper ways to communicate with one another, to train them in new, more effective ways of communicating, and to start them through a sequence of problem solving.

Training during the school year would be focused on extending the communication and problem-solving skills learned during the first week and in using these skills in real work sessions. Some of the exercises described in Chapter 3, especially "Goal Clarity and Agreement" and "Decision-making Clarity" could be used during the school year to move the faculty toward more focused organizational problem solving. The group procedures summarized in Chapter 6 can easily be used as part of staff or committee meetings during the school year.

Many school faculties may not be able to spend a week in organizational training early in a sequence and may, therefore, have to choose a more modest and limited program. If a staff is able to set aside a two-hour period every few weeks, we would suggest a program with three phases lasting for twelve sessions or about six months.

The three phases are: (1) Problem awareness and demonstration; (2) Problem definition and specificity; and (3) Problem solving.

#### Problem Awareness and Demonstration - Three Sessions

The first theme of this phase should be the importance of making full use of the human resources in the staff. "The Trip Across the Moon" or "Twelve Angry Men" are excellent for this purpose. Either one can be accomplished during a two-hour session.

Making full use of the persons in a group requires a style of collaboration that is relatively free of holding back and competing by individuals in the group. The "Non-Verbal Cooperation" exercise graphically demonstrates the difficulties involved in cooperating in a group.

The school organization is more complex than a simple face-to-face group. Cooperation and collaboration in an organization requires more consciously-planned efforts than in a small group. The exercise entitled, "Planning and Execution", demonstrates the problems that arise when incomplete collaboration and communication exists between administrators and teachers.

These three sessions should help a school staff to be more aware publicly of the sorts of organizational problems that exist for them. Each of these exercises fosters new awareness by presenting staff members real experiences in a safe, game-like atmosphere.

#### Problem Definition and Specificity - Four Sessions

At this point the staff would be ready to look at some specific phenomenon that might create problems in the school. During the next

four sessions the staff would focus on four different potential problem-areas. First, the staff could look at its problems of communication through one or both of the exercises on "Communication Clarity". Next, the staff would explore "Goal Clarity and Agreement"; and follow this with "Dispersed Influence Structure". Finally, this middle phase could be terminated with the exercise on "Decision-Making Clarity".

#### Problem Solving - Five Sessions

By this time the staff would have generated a number of ideas concerning the kinds of organizational problems that are most serious for it. For the next five sessions, the staff should move through the problem-solving sequence summarized in Chapter 5. It should address real problems that exist within the school organization and use some of the procedures described in Chapter 6 as examples of ways of solving organizational problems.



## References

- B. M. Bass. A program of exercises for management and organizational psychology, Pittsburgh, Pa.: Management Development Association, 1966.
- K. D. Benne and P. Sheats. Functional roles of group members. Journal of Social Issues, 4(2), 1948, 41-49.
- Lester Coch and John R. P. French, Jr. Overcoming resistance to change. Human Relations, 1948, 1, 512-532.
- J. Hall, and V. O'Leary. The utilization of group resources in decision making. Unpublished paper, National Training Laboratories, Washington, D. C., 1967.
- Rensis Likert. New patterns of management. New York: McGraw-Hill, 1961.
- R. F. Mager. Preparing instructional objectives. Palo Alto, Calif.: Fearon Publishers, 1962.
- Norman Maier and A. R. Solem. The contribution of a discussion leader to the quality of group thinking: the effective use of minority opinions. Human Relations, 1952, 5, 277-288.
- Matthew B. Miles. Learning to work in groups: a program guide for educational leaders. New York: Teachers College Press, 1959.
- John W. McDavid and Herbert Harari. Social psychology: individuals, groups, and societies. New York: Harper and Row, 1968.
- Douglas McGregor. The professional manager. New York: McGraw-Hill, 1967.
- Theodore M. Newcomb, Ralph H. Turner, and Philip E. Converse. Social psychology: the study of human interaction. New York: Holt, Rinehart, and Winston, 1965.
- Richard A. Schmuck and Philip J. Runkel. Organizational training for a school faculty. Eugene, Oregon, CASEA, in press.
- Richard Schmuck, M. Chesler, and R. Lippitt. Problem solving to improve classroom learning. Chicago, Ill.: Science Research Associates, 1966.
- E. P. Torrance. Group decision making and disagreement. Social Forces, 1957, 35, 314-318.
- Goodwin Watson. Social psychology: issues and insights. New York: Lippincott, 1966.