DESIGNING GROUPWORK

Strategies for the Heterogeneous Classroom

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ing, analyzing, and synthesizing what each person has learned. This discussion can cause the group to look at the problem in new and different ways. Integration is a challenging task intellectually as well as interpersonally. Criticism and evaluation from others are never easy to take, but they are essential for a good final product.

During the middle phase, when the labor has been divided, people can go about their business in a fairly independent way. At this stage, it is desirable to have a leader who acts as a center for group communication and who keeps everything moving forward.

Group Investigation

Group investigation, developed by Sharan and Hertz-Lazarowitz (1980), is the most sophisticated method for long-term projects using planning groups, division of labor, and term projects using planning groups, division of labor, and "how" roles for group management. Repeated evaluations in heterogeneous classrooms have shown that it is particularly effective in teaching concepts requiring higher level cognitive skills and in producing more cooperative and altruistic behavior (Sharan, Hertz-Lazarowitz, & Ackerman, 1980; Sharan & Shachar, 1988). More recently, Yael and Shlomo Sharan (1992) have prepared a book on this method for teachers.

In group investigation, students act as creative research scholars, producing their own knowledge. In order to achieve these goals, they must work together closely. Good group process is insured in various ways: building commitment to the group and its project, use of division of labor, and group process skills. If your objective is to enable students to create their own knowledge, and if you have been successful on short-term tasks with skills for group process and with the use of "how" roles and the division of labor, you may wish to plan such a long-term project. Be forewarned that group investigation demands the combination of all these strategies as well as skillful support and supervision by the teacher.

7 The Teacher's Role: Letting Go and Teaming Up

Question: What is your most important insight about teaching that you wish you had known during your first two years of teaching?
Answer: To let kids do more and me do less. This has been a hard lesson to learn over the years. I use a lot of cooperative learning, hands-on activities, and inquiry in the class and it was difficult for me to learn to step back and let it all happen. (Paul Martini, Woodside High School science teacher, Woodside, California)

Groupwork changes a teacher's role dramatically. No longer are you a direct supervisor of students, responsible for insuring that they do their work exactly as you direct. No longer is it your responsibility to watch for every mistake and correct it on the spot. Instead, authority is delegated to students and to groups of students. They are in charge of insuring that the job gets done, and that classmates get the help they need. They are empowered to make mistakes, to find out what went wrong, and what might be done about it.

This does not mean that you have given up your position as an authority in the classroom. On the contrary, you are the authority who gives directions for the task; you set the rules; you train the students to use norms for cooperation; you assign students to groups; you delegate authority to those students who are to play special roles; and, most important, you hold the groups accountable for the product of their work. This chapter

discusses what letting go while groups are operating means for your role.

Groupwork is better done with the aid of a colleague or some other adult. Designing and evaluating groupwork tasks is a classic case of creative problem solving where "two heads are better than one." Considering that teachers have responsibility for their own classrooms and are not free, let alone welcome, in other teachers' classrooms, you may feel that this is an impractical recommendation. Solving this problem is the second topic of this chapter.

DELEGATING AUTHORITY

When you stand in front of the class and instruct the students as a whole, when you give out individual seatwork and walk around the classroom overseeing performance, when you divide up the class into reading groups and sit with one group while they take turns reading aloud or answering your questions, you are using direct supervision. Even when in preparation for groupwork you gather the class together and provide an orientation, you are using direct supervision.

When groupwork is underway, however, and groups are working and talking together using the instructions you have prepared, then your authority has been delegated. The teacher cannot possibly be everywhere at once trying to help six different groups. Moreover, having students talk with each other is essential as a method of managing heterogeneous classes. When they are trained to help each other, perhaps by reading or by translating into the student's native language, students use each other as resources to understand the assignments.

When students are working on uncertain conceptual tasks such as discovery and creative problem solving, talking and working together are a necessity for achievement (Cohen, Lotan, & Leechor, 1989). Students must be encouraged to work with each other to deal with all the questions and problems involved in these tasks. Research has shown that all students, but particularly individuals who are reading below grade level, benefit from interacting with other students on challenging tasks

(Leechor, 1988). Unless you are successful in delegating authority to groups, your students will not gain these benefits of talking and working together and you will find that groupwork is unmanageable.

An Effective Management System

Teachers are always surprised to discover how smoothly students can operate on their own in properly designed groupwork. The secret of successful management of such complex instruction lies in clarity—the students' perfect understanding of how they are supposed to behave, what they are supposed to be doing, and where they can turn for help if problems develop. The same is true for a traditional classroom; the difference is simply that with groupwork, students have to take more responsibility for their own behavior and for the behavior of others in their group. They should not be turning to the teacher for constant direction, evaluation, and assistance; they should use their peers instead.

Clarity is attained by having as simple a system as possible. In addition, much clarity is achieved by training in advance for roles and for cooperation, as well as by the careful planning process recommended in the preceding chapters. All these management techniques operate to control student behavior in a constructive and productive manner without having to tell people what to do directly. There is no need to control individual students' behavior with systems of points or rewards; the teacher's job is to make the groups and the instructions operate to solve any discipline problems that arise.

The steps for developing such a management system are briefly summarized below:

1. Cooperative norms need to be taught as recommended in Chapter 4 so that students will know how they ought to behave and will act to enforce these behaviors on others.

2. Students should know which group they are in and where that group is supposed to meet; a minimum amount of time should be wasted in getting across this vital information.

3. Public and specific information as to who is to play what role and what specific behaviors are expected should be available as described in the previous chapter.
4. Each group should have clear instructions for the task available to them as they work; this will do much to prevent students from having to turn to you as a source of knowledge.
5. Students should have heard a brief orientation from you on the objectives of this task and on the criteria for evaluation.

For many groupwork situations, these five considerations will be quite sufficient for everything to go smoothly. You may also want to select a set of fundamental rules and keep these posted. In the implementation manual for complex instruction in the middle school (Cohen & Chatfield, 1991), we recommend the use of the following basic rules:

- You MUST COMPLETE each group activity and individual report.
- Play your role in the group.
- You have the right to ask anyone else in your group for help.
- You have the duty to assist anyone who asks for help.
- Help other group members without doing their work for them.
- EVERYBODY HELPS.

When you use collaborative seatwork, the written worksheet or assignment directs the students as to what you want them to do. When the task is more conceptual and involves discovery, I recommend the use of an activity card. Many of the published curricula featuring cooperative learning in science suffer from an inadequate delegation of authority because of the lack of an activity card. The students rely on directions from the teacher, who frequently interrupts the group to give directions and to assist in the process of discovery. The teacher is concerned that the students get the "point" of the activity and tries to prevent the group from making errors while discovering what they are supposed to be discovering. The difficulty with this procedure is that it greatly reduces the amount of talking and working to-

gether. The group has no chance to achieve its own insights and individuals who are lost are unable to use other group members as resources.

The "No Hovering" Rule

Following an orientation, you delegate authority to groups to carry out their task. It is of critical importance to let them make decisions *on their own*. They even need to make some mistakes on their own. They are accountable to you for their work. You must let go and allow the groups to work things through without your overseeing every step. They must learn to solve some problems for themselves.

Teachers in traditional classrooms, when they are not lecturing, spend the bulk of their time guiding the students through various tasks. They show and tell how to do the assignments. They redirect students who appear to be disengaged from their work. They answer many questions that come from individual students.

This kind of direct supervision will undermine the management system you have worked so hard to develop. If you are available to solve all the problems, students will not rely on themselves or on their group. Because of their past experiences with supervision, whenever students see you hovering nearby, they will stop talking to each other and look to you for direction. If the teacher attempts direct instruction while the students are engaged in the groups, the result will be less talking and working together and therefore less gains on measures of learning. These connections between classroom management and learning gains have been documented in two separate years of data collection on complex instruction (Cohen et al., 1989).

Avoid rushing to the rescue at the first sign of difficulty in a group. Force the group back on its own resources by refusing to answer questions unless the entire group has been consulted for possible answers. Many teachers have a rule that only the facilitator can ask a question after having made sure that no one in the group has the answer. In moving about the classroom, make a conscious effort not to look as if you are an available member of the group.

While the Groups Work

Students are now doing many of the things you ordinarily do—like answering each other's questions, keeping each other engaged in the task, helping each other to get started. After teachers discover that they do not appear to be needed because everything is running without them, they often say, "I feel like I've been done out of my job; it all works without me. What am I supposed to be doing?"

Despite the ability of groups to carry on by themselves, your role is not one of *laissez-faire*. You are now free for a much higher level and more demanding kind of teacher role. You now have a chance to observe students carefully and to listen to the discussion from a discreet distance. You can ask key questions to stimulate a group that is operating at too low a level; you can provide feedback to individuals and to groups; you can stimulate their thinking; you can look for low status behavior and intervene in thinking; you can look for status problems; and you can reinforce rules, order to treat for status problems; and you can reinforce rules, roles, and norms in those particular groups where the system is not operating at its best.

There is a delicate balance between avoiding hovering and wisely intervening in a group. The price to be paid for intervention is reducing interaction within the group. Ask yourself whether you are willing to pay that price. Although groups should be allowed to make mistakes for themselves, there are times when nothing is to be gained from letting a group struggle onward:

- When the group is hopelessly off-task
- When the group does not seem to understand enough to get started or to carry out the task
- When the group is experiencing sharp interpersonal conflict
- When the group is falling apart because they cannot organize themselves to get the task done.

Don't rush in at the first sign of trouble. Stand close enough to hear but far enough away so that your presence is unobtrusive. Carefully listen and make an hypothesis about just what

kind of problem the group is experiencing. Are low status students being shut out of the group? Is it a problem of group process? Is it some inability to understand the directions? Is it a problem of how to proceed? Is it a lack of background, academic skills, or content knowledge? Perhaps you will decide after watching and listening that the group will solve its own problems and does not need you.

If you decide to move in, what you do or say depends on your hypothesis about what the problem is.

- A group is having trouble getting organized. You remind them of the rules and roles. You ask whether people are playing their roles. You suggest that the facilitator discuss what they have to get done, make a list, and help the group to prioritize what needs to be done first and who can do it. You tell the group that you will be back to hear the results of their discussion. You then leave.
- A group has "gotten stuck" on a problem and doesn't seem to be getting anywhere. The level of frustration is rising. You ask a few open-ended questions in an attempt to redirect the group discussion. You suggest that the group deal with your questions in their own deliberations—and you walk off.
- A group is not sharing materials cooperatively. You could ask them to stop for a few moments and talk over how they are doing on some of the cooperative norms (ideally, posted somewhere in the room). Then you can ask them to tell you after having had a brief discussion what their conclusions are and what they think they should do about it. (Don't stay to supervise the discussion.)
- A group is struggling with a difficult text and does not know how to analyze the document. They are in need of some intellectual assistance. You point out some of the key parts. You check for their understanding of what is being asked. You may even fill them in on missing parts of their knowledge. This does not mean you are doing the task for them or directing them how to do it. You are merely moving them to the point where they can cope with the demands of the task.
- A group of second graders has plunged into the task without reading instructions. You tell the group that you don't want

them to touch the materials until they can tell you just what they are supposed to be doing. You say that you are going to return to the group and ask any member to explain what it is they are supposed to be doing. If that person can explain, then they can get started with the materials. Otherwise, they will have to continue to read and discuss.

In none of these examples are you using direct supervision. Instead, you are using the system of roles and norms to make the groups operate. You are forcing the group back upon its own resources—to take more responsibility for its own learning and functioning.

In addition to these cases of groups experiencing severe difficulties, you may want to intervene in order to deepen the thinking on the assigned topic. Asking questions is an excellent way to achieve this end provided you do not stay around to answer your own questions or to call on various group members to guess what you have in mind. Without giving an answer, the teacher can help students to analyze a phenomenon or a problem in terms of its parts and interrelationships. For example, a group of students in science are having problems making a flashlight is working. Have you tested each part of it to see if it's flashlight. The teacher responds by saying, "Not everyone's work, you might be able to figure out how to get it working." working? By sharing with each other the parts you find that Questions beginning with "why" are good for stimulating analytic thinking. You might ask a group of students working on the Crusades, "Why did the Crusaders try to dehumanize the enemy?"

Your attention will also be necessary if one group finishes their work very quickly while the others need more time. You might open up the task once more by asking some questions about analyzing the problem further, or about generalizing the task to another situation. For example, you might ask: What other ways are there of . . . ? How can we use what we learned in . . . ? Do you think this is true of all . . . ? What would happen if you did things another way? You might also ask the group to consult reference works that you have provided to extend their activity and their thinking.

Management of Conflict

Disagreement about ideas is a healthy sign during groupwork as long as intellectual disagreement does not degenerate into sharp interpersonal conflict. Some interpersonal conflict is inevitable and should not be taken as a sign of failure. Nor should it be an opportunity for you to intervene and take over the reins immediately, acting as arbiter, juror, and judge.

What can you do? Ask the group what seems to be the difficulty. Then ask them to think of some alternative strategies for handling the conflict. If you have prepared your class with strategies for conflict resolution, as described in Chapter 4, they will be able to envision alternative ways to behave. If you have really delegated authority, then the group should take responsibility for solving its interpersonal problems. Even younger students are able to develop workable strategies for managing conflict when challenged to do so and when the teacher persists in demanding that they talk things through until they find a solution.

If the problem is due to a volatile combination of students, make a note not to put that combination together again. Changing the composition of groups on a regular basis and rotation of roles will help to defuse interpersonal problems so that the conflict does not become chronic. If, however, you think you are seeing the same problem in a number of groups, there may be a difficulty with the way you have prepared the students and/or the nature of the task. Take the time to have a whole class discussion during wrap-up and see if you can locate the general problem. Be prepared to make adjustments in your task, to do some retraining and reinforcing of rules and roles, or to develop some strategies with the class as a whole that will solve the problem.

Holding Students Accountable

Teachers are anxious to grade groupwork and to use systems of points for acceptable behavior because they know that it is important to hold individuals and groups accountable. However, these strategies are unnecessary in the management system just described. There are multiple alternatives in the system you can use for this purpose. When you intervene while the groups

are working and require the group to pull itself together and function, you are holding the groups accountable.

You also hold the group accountable by requiring a presentation of their work during the wrap-up phase. When a group has failed to work together well and has not addressed the questions raised on the activity card, they need to know that you are aware of what has happened and expect them to do better in the future. You may choose to deliver this feedback to the group while they are still working at learning stations and reserve your more general commentary on what is to be learned from their experience for the rest of the class during wrap-up. For example, you could point out that the next group to do this task should be sure to work with the omitted discussion questions. If, however, you start a round of applause for every group performance no matter how weak, the students will realize that there is no group accountability in the system.

By providing feedback to groups on their group process, you can show that you intend groups to take responsibility for what happens while they are at work. Simultaneously, you can confirm their accomplishments, recommend effective strategies they employed to other groups, or point out the difficulties that will require some attention. Feedback on group process can take place while the group is working or during wrap-up. While helping the groups to learn more effective strategies, your feedback also has the function of letting the students know that you are watching their behavior very carefully and holding them accountable for what happens in their groups.

Individual accountability is maintained by reading over the individual reports or products. If individuals find that you do not know whether or not they have completed a group report or if they are pretty sure you never read these documents, they may become "free riders" in their groups.

Teacher's Role for Orientation and Wrap-up

During orientation you are clearly in direct charge of the students. Their job is to listen and to ask questions if they do not understand. This does not mean that a long lecture is in order. I often stand at the back of the classroom while teachers give

orientations and usually note that students have difficulty paying close attention to what the teacher is saying. Even in high school, they seem to "tune out" after five minutes. Those teachers who use visual aids and who involve the students in a discussion concerning what they are about to experience are much more successful in holding the class's attention than those who attempt to tell everything that the students will need to know.

During wrap-up the teacher listens carefully to group reports, providing feedback and stimulating discussion. Asking higher order questions at this time will encourage students' thinking. Following student presentations, the teacher would do well to comment on what has been learned from the exercise. It is necessary to make connections between the activities and the central concepts they are supposed to illustrate. Otherwise, students get lost in the interesting and concrete details of their group products and forget the point of the lesson.

Wrap-up is also the time to provide feedback on what you observed while students were at work in their groups. If you constantly interrupt to provide feedback while they are in groups, you will run the risk of "hovering" and reducing the interaction. Many teachers find that it is better to circulate among the groups, listening and taking notes on a clipboard. Then, during wrap-up or during the orientation the next day, they provide feedback to groups and individuals. Feedback, under these circumstances, has the double function of holding groups accountable and of helping the students with their understanding of the intellectual tasks at hand. It is a priceless opportunity to offer public praise to students who have done very well in the context of groupwork—particularly those who are not high achievers in conventional academic tasks.

WORKING AS A TEAM

One of the most gratifying experiences for a teacher is to plan and carry out groupwork designs with a trusted colleague. Just as students use each other as resources in groupwork, teachers can do the same. With the joint wealth of past experience as to what tasks work well with students and as to how in-

structions can be made clear, teachers can be highly creative as they work together. They can also provide honest and constructive feedback as ideas develop.

When instruction is complex, as is the case with groupwork, having teachers work together means that they are able to be of great assistance to each other while the class is operating. Perhaps one teacher can stop to work with a group needing intervention, while another keeps an eye on the classroom as a whole. One teacher can prepare the orientation while another can do the wrap-up. The labor of preparing complex materials for learning stations can also be divided.

Another advantage of a colleague is the benefit that accrues when two or more teachers hold formal, scheduled meetings. In these meetings (even if they are as short as twenty minutes) one has a chance to consider various problems that have come up, to raise possible alternatives, to choose one, and to talk once more in the next meeting about how good or bad the decision was. This kind of thoughtful and evaluative decision making is very difficult to carry out all by oneself. In research with teachers, Intili and I have repeatedly found that teachers who hold regular team meetings are better able to implement complex and sophisticated instruction than those who rely on brief huddles just before and during class (Intili, 1977; Cohen & Intili, 1982).

The last major advantage of working with a colleague lies in having someone to make an observation and systematic evaluation of your groupwork in progress. It is almost impossible to run groupwork and evaluate what is happening at the same time. Chapter 9 includes a number of simple techniques for a colleague to use in helping to evaluate your groupwork. Even beginning teachers can provide helpful feedback using these techniques. And you can return the favor by observing in your colleague's classroom.

Finding Ways to Team

There are two kinds of teaming; one requires more organizational change than the other. The first kind is joint teaching where your colleague actually teaches jointly with you in your

classroom. I use the word "colleague" because this person does not necessarily have to be another classroom teacher. I have worked with successful teams made up of a resource teacher working with a classroom teacher for one period a day, a teacher and an aide, or a teacher and a trained parent volunteer. If your class is difficult to control and unused to groupwork, you will need another person, especially at the beginning. If your tasks are complex—such as using different science experiments at different learning stations, or working with sophisticated equipment like video cameras—and if you have different groups of young students doing very different tasks, another person becomes a necessity. This is as true for classrooms as it is for any other organization: Complex technology is more effective when staff work more closely together (Perrow, 1961).

If you have a friend on the faculty with whom you would like to try some of these groupwork activities, talk to the principal about finding ways to work together. If a large room such as a multipurpose room is free, it is possible to combine two classes for the actual groupwork. If the classes are from different grades or if you are combining with a class for special education, you will be surprised to see how well students of different ages and levels of academic achievement can work together in this setting. If you are combining age groups, it is especially important to pick a task that older students can extend and develop, but also one that younger students will be able to manage with assistance. It will also be necessary to include special training to show students how to help other people without doing each other's work.

If you decide to work with an aide or a volunteer, take the time to train that person as to your expectations of them during the teaching process. If you do not train them, the result will be that they will move in and try to supervise groups directly. Aides or volunteers can become valuable colleagues if you allow them to bring in suggestions and to make evaluations of what is happening. In these circumstances, you are still the decision maker; it is the role of your assistant to observe and gather data about what the problems are during the course of groupwork. You also expect that they will make constructive suggestions during team meetings.

If you cannot manage joint teaching, the next best thing is teaming for planning and evaluation purposes. It is not difficult to find the time for brief meetings with a colleague for planning purposes. In addition, you need to find time for that colleague to visit your classroom and time when you can return the favor. It is during these visits that the evaluation devices can be used. Following evaluation, a meeting should take place to discuss the results of the evaluation and to decide what should be done in order to improve the procedures. Most principals are supportive of this type of collegial effort to improve instruction. Some principals even volunteer to take over classes for an hour while the visits are going on. I have worked at very few schools where the teachers and administrators were unable to work out a suitable plan.

Collegial interaction of this sort is highly rewarding. Evaluations of in-service programs requiring this kind of collegial interaction have consistently revealed that teachers find working with a colleague in planning, observation, and evaluation one of the most satisfying and stimulating of their professional experiences. Despite initial doubts about having another teacher watch them at work, they find that constructive criticism from a colleague who is facing the same kind of practical classroom problems is helpful; they realize that they have wanted and needed this kind of feedback for a long time.

8 Treating Expectations for Competence

It is time now to return to the dilemma of groupwork discussed in Chapter 3. What have we done about the problem of high status students dominating interaction and of low status students withdrawing from the group? There is an even more fundamental question: Have we done anything to change low expectations for competence, the underlying cause of nonparticipation by low status students?

Recall that high status students are generally expected to do well on new intellectual tasks and low status students are generally expected to do poorly on these same tasks. When the teacher assigns a groupwork task, general expectations come into play and produce a self-fulfilling prophecy in which the high status students talk more and become more influential than the low status students. The net result of the interaction is that the low status students are once again seen as incompetent. This occurs even if groups are given a rich new task that does not stress ordinary academic skills.

Two strategies will have some impact on this problem: (1) establishing cooperative norms such as "everyone participates" and "everyone helps"; and (2) giving every student a part or role to play. Both of these strategies will raise participation rates of both low and high status students and will prevent high status students from doing all the talking. Furthermore, low status students, just by talking and working together, will improve their performance.

Doesn't that take care of the whole status problem? Not exactly—nothing has happened to change expectations for com-