

DOCUMENT RESUME

ED 394 944

SP 036 643

AUTHOR Shulman, Judith H., Ed.; And Others
 TITLE Groupwork in Diverse Classrooms: A Casebook for Educators [and] Facilitator's Guide.
 INSTITUTION Far West Lab. for Educational Research and Development, San Francisco, Calif.
 SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
 PUB DATE 30 Nov 95
 CONTRACT RP91-00-2006
 NOTE 204p.
 PUB TYPE Guides - Classroom Use - Teaching Guides (For Teacher) (052)

EDRS PRICE MF01/PC09 Plus Postage.
 DESCRIPTORS *Case Studies; Classroom Techniques; *Cooperative Learning; Elementary Secondary Education; Faculty Development; *Group Activities; *Group Dynamics; Higher Education; Interaction Process Analysis; Personal Narratives; *Reflective Teaching; Self Directed Groups; *Teaching Methods
 IDENTIFIERS Case Method (Teaching Technique)

ABSTRACT

This two-volume set offers 16 narrative case studies and a facilitator's guide. Cases were written by teachers about their personal experiences with teaching and groupwork, especially the problematic situations and dilemmas they faced. Groupwork is a well-documented and highly recommended strategy for enhancing students' academic, cognitive, social, and attitudinal outcomes. Students involved in groupwork often make greater learning gains in basic academic skills and higher-order thinking than do students in traditional, whole-class instruction. Chapter 1 offers case studies that summarize the major issues related to groupwork as an instructional strategy and describes two particular models: Complex Instruction and Fostering a Community of Learners. Chapter 2 offers suggestions for facilitating groupwork interactions, while chapter 3 presents a case that illustrates how the "center of attention" person, be it student or teacher, may change due to groupwork. In general, the cases present abstract issues in concrete terms that mirror these teachers' own experiences. These cases can be used in professional development settings to stimulate discussion, interpretation, and problem solving among teachers who face similar issues in their own teaching. The facilitator's guide provides general information on how to lead case discussions and specific teaching notes for each case to help the facilitator prepare for the issues that may come up during the discussion. The guide includes a table that offers an overview of specific issues found across the 16 cases. Appendixes include an annotated bibliography and guidelines for case writing. (Contains 22 references.) (NAV)

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GROUPWORK IN DIVERSE CLASSROOMS: A CASEBOOK FOR EDUCATORS

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***GROUPWORK IN DIVERSE CLASSROOMS:
A CASEBOOK FOR EDUCATORS***

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This document is supported by federal funds from the U.S. Department of Education, Office of Educational Research and Improvement, contract number RP91-00-2006. Its contents do not necessarily reflect the views or policies of the Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the United States Government.

ABSTRACT

A common instructional strategy in American classrooms is to have students work in groups. When students work together, they can pool their talents to accomplish more challenging work, while learning important social skills that will also be useful in the world beyond school. But successful use of groupwork requires much more than simply putting students in groups. Even skilled teachers struggle with such issues as how to teach social skills, how to develop understanding of content while encouraging independent thinking and responsibility, how to intervene appropriately when necessary, and how to encourage the active participation of all students. For this casebook, teachers wrote narrative accounts of their experiences with groupwork, especially problematic situations and dilemmas they faced. These narrative cases can be used in professional development settings to stimulate discussion, interpretation, and problem solving among teachers who, most likely, face similar issues in their own teaching. The accompanying facilitator's guide provides general information about how to lead case discussions and also specific teaching notes for each case which can help the facilitator prepare for the issues that may come up in the discussion.

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**These case writers have since moved on to new school/work assignments since this casebook project was begun.*

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PREFACE

This volume is the fourth in a series of casebooks developed at the Far West Laboratory (FWL). These casebooks are part of a nationwide effort to capture and use practitioner knowledge to better prepare teachers for the reality of today's classrooms.

Unlike business, law, and medicine, education has made little formal use of cases as professional training tools. But interest in case-based teaching is now growing in both teacher preparation and inservice training programs. The 1980s reform movement is largely responsible. In the effort to improve schools, it has become increasingly clear that teachers are unprepared for the huge array of challenges presented by a student population and workplace vastly different from that of even a decade ago. Novices often find the gritty, real-life classroom to be light years from the ideal they imagined as students. Spotting this gap between theory and practice, the 1986 Carnegie report, *A Nation Prepared: Teachers for the 21st Century*, recommended that teacher training institutions use "cases illustrating a great variety of teaching problems" as "a major focus of instruction."

What do we mean by "case?" Cases are candid, dramatic, highly readable accounts of teaching events or series of events. They show a problem-based snapshot of an on-the-job dilemma. Read alone, cases offer the vicarious experience of walking in another's shoes. In group discussion, they are especially powerful, allowing differing points of view to be aired and examined. For that reason, cases are consciously designed to provoke discussion that is engaging, demanding and intellectually exciting. Some cases are written by researchers, but those we have pioneered over the past ten years at FWL are written by teachers themselves.

Because they tell vivid, moving stories, cases give life to abstract principles and propositions, and are likely to be remembered. Teacher educators, administrators, mentors, and staff developers are using cases to trigger discussion about why a given strategy works or does not work. Beginners learn to create lessons that promote learning and environments that promote safety and trust. They learn to frame problems from multiple perspectives, interpret complex situations, and identify decision points and possible consequences — that is, they learn to think like teachers. Veterans discuss teaching situations that mirror their own, in the process reflecting on their values, attitudes, and assumptions and wrestling with the disequilibrium this creates. As a result, they often change their beliefs about teaching and learning and, thus, adopt very different ways of working with students.

FAR WEST LABORATORY'S APPROACH

The FWL case writing process makes practitioners themselves the subjects, producers, and consumers of action research. We emphasize this because teachers generally have few mechanisms to record and preserve their accumulated knowledge. When a teacher retires or leaves the profession, his or her understanding, methods, and materials — which should form a legacy to the profession, the community, and the school — are generally lost. Today, however, there is an expanding literature on the practitioner

experience. The casebooks contribute to it by combining the growing body of research about teaching with specific accounts of classroom dilemmas written by teachers themselves.

But cases are not simply narrative descriptions of events. To call something a case is to make a theoretical claim — that it is a case *of* something, or an instance of a larger class. This is not to say that all cases illustrate, exemplify, or teach a theoretical principle. To be valuable as a case, however, the narrative should be representative of a class or type of dilemma, problem or quandary that arises with some frequency in teaching situations. Most rich cases, however, are cases “of” many things. Cases may also be exemplars of principles, describing by their detail a general pattern of practice.

The narratives in our casebooks are selected because they meet the criterion representing a larger class of experiences. In our first volume, *The Mentor Teacher Casebook*, 22 mentor teachers from the Los Angeles Unified School District (LAUSD) describe the rewards and frustrations of providing on-the-job assistance to beginning teachers. An outgrowth of our study of the California Mentor Teacher Program’s first year, its vignettes describe how the mentor-colleague relationship develops and illustrate the complexity of the new mentor role. In the second casebook, *The Intern Teacher Casebook*, first-year teachers — again in LAUSD — describe in frank and moving detail the reality shock they experienced during their first few months instructing teenagers in inner-city schools. Their stories frequently reveal their initial inability to understand youngsters with backgrounds radically different from their own. They also portray the enormous challenge of simultaneously encountering two new cultures: teaching and poverty.

Our third volume, *Diversity in the Classroom: A Casebook for Teachers and Teacher Educators*, continues the focus on diversity, but from the perspective of veteran teachers who describe some of the most problematic experiences of their careers. Some look back to their novice days, describe how they handled a situation, and reflect on what they might do differently now. Others relate current concerns and leave us with unresolved problems.

ABOUT THIS CASEBOOK

The 16 cases in the pages that follow are again set in diverse, predominantly low-income schools. All but two are written by veteran teachers who describe the challenges and dilemmas of using groupwork in their classrooms. All of these teachers are committed to the benefits of groupwork. Some veterans have been exploring multiple approaches for several years, while others are in the midst of transforming their teaching. Yet, whatever the degree of experience, all would agree that using groupwork effectively is a complex and time-consuming skill. It demands preparation activities that build classroom community and collaborative working relationships among students, group tasks that require a contribution from each group member, and curriculum that shows coherence among the group tasks. Even with the best of intentions and planning, things can go awry in the messy world of practice — students are absent, behave differently than anticipated, or may not like to work in groups.

To stimulate analysis and reflection, these cases focus on the surprises — the unanticipated events that happen every day in a classroom. The particular problems represented in narratives were carefully chosen by the teachers because they hoped that others could learn from their experience. As you will note when you read and discuss the cases, they often embed many of the same dilemmas that involve:

- examining why and how to use groupwork effectively
- designing group tasks that both complement one another and demand contributions from all group members
- analyzing the appropriate role of a teacher during group activities
- exploring constructive teacher interventions during group process
- crafting groups that supports learning for all students
- supporting students to cooperate and collaborate with one another
- dealing with uncooperative individuals and groups of students
- providing effective status interventions
- developing appropriate assessments for group activities
- exploring how to communicate with parents who may be critical of group projects

We have tried to sequence the cases to highlight many of these dilemmas. But since cases are usually “of” many things, they often don’t fit neatly in any one chapter or section.

For those interested in pursuing additional reading, we offer a number of resources in the appendices: an annotated bibliography on groupwork (Appendix A), and a bibliography of selected resources on case methods (Appendix B). If you are interested in adapting our case development methodology to create your own set of cases, please look at the guidelines we used with contributors to this casebook (Appendix C).

TIPS FOR USING THESE CASES

Recent reforms in education promote the use of groupwork in heterogeneous classrooms. Yet we and the contributors to this book appreciate the difficulty and complexity of utilizing groupwork effectively. We hope that these cases will prompt you and your colleagues to be more reflective and analytical about how to design and implement appropriate group tasks. We also hope you will analyze how to create a community of learners characterized by norms of cooperation and collaboration, a coherent curriculum that leads to deep understanding of the subject matter, and tasks that engage group members in a meaningful pursuit of learning.

As stated above, cases are powerful discussion catalysts. Good discussion can help people dig into a case. As you read these cases, you may want to ask yourself questions such as: How did the teacher frame the problems he or she encountered? What other ways could the problem have been framed? What did this teacher actually do and why? With what result? What alternative strategies might have been tried? At what risk? With what consequences? What were students thinking and feeling? How did they try to communicate this to the teacher? How does this teacher’s story parallel experiences of your own? How might this case (or case discussion) lead you to think of different ways of dealing with these dilemmas? What principles of teaching and learning can be generated from your analysis?

A *Facilitator’s Guide* is prepared to accompany this casebook. It was developed as a result of a pilot test of all the cases with a variety of educational groups. It includes an analysis of issues embedded in each case and sample questions to raise during a discussion. Deliberations stimulated from such questions can help people to: 1) spot issues and frame problems in ambiguous situations, 2) interpret situations from multiple perspectives, 3) identify crucial decision points and possibilities for action, 4) recognize

potential risks and benefits inherent in any course of action, and 5) identify and test teaching principles in real classroom situations.

AN INVITATION TO JOIN US

Unlike previous casebooks, the cases in this edition are not accompanied by commentaries. During our field test of each case, we gained new insights by engaging in stimulating discussions with a variety of educators. Consequently, we decided to try an experiment to broaden the discourse by inviting you to join us. Instead of our soliciting commentaries from other educators, we invite you to write your own reactions and interpretations to each case and enter them on a World Wide Web site created at Far West Laboratory. We hope to encourage analysis of cases *and* of case discussions. Utilizing the Internet, we can exceed the boundaries of any individual analysis and create a community of learners for all who use the cases.

ACKNOWLEDGMENTS

We would first like to thank the case writers for taking time out of their busy schedules to write such interesting and candid accounts. These teachers had the courage to both question their beliefs and document their perceptions through multiple drafts of their cases. Thanks also for invaluable input from Nikki Filby and Carne Barnett, Far West Laboratory colleagues; advisory board members Elizabeth Cohen, Joe Campione, Debbie Edginton, Amalia Mesa-Bains, Pam Tyson, Bettye Haysbert, Susana Mata, and Susan McBride, who provided wisdom and asked difficult questions; and Don Barfield, who supported this project from its inception.

Several other people made valuable contributions: Rosemary De La Torre, who kept us organized through the project and revised multiple drafts; Kim O'Neill, who developed the annotated bibliography; and Joy Zimmerman and Sally Ianiro, our editors and most insightful critics. Special thanks go to our spouses, Lee, Zohar, and John, who supported us through every step of the way.

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INTRODUCTION

BENEFITS OF GROUPWORK

Groupwork is a well documented and highly recommended strategy for enhancing academic, cognitive, social and attitudinal outcomes for students. Researchers (Slavin, 1990; Sharan, 1994) have shown that students who experience group work make greater learning gains in basic academic skills as well as higher-order thinking when compared to students in traditional, whole-class instruction. Students who learn in groups also demonstrate enhanced social skills (Watson et al., 1994), and inter-racial, inter-ethnic acceptance (Miller & Davidson-Podgorny, 1987). Thus, groupwork is considered a sound instructional approach for academically, ethnically, and linguistically heterogeneous classrooms. In these diverse settings, students can serve as resources to one another as they complete intellectually challenging learning tasks (Cohen, 1994).

In this chapter, we provide a brief overview of the major issues related to groupwork as an instructional strategy: 1) organization of the classroom and the necessary redefinition of the traditional roles of teacher and student, 2) features of a sound group task, 3) unequal participation of group members, and 4) assessment of groupwork. Finally, we describe two particular models of groupwork, Complex Instruction and Fostering a Community of Learners, which provide the classroom context for a number of cases in this book.

ORGANIZATION OF THE CLASSROOM FOR GROUPWORK

During groupwork, the organization of the classroom is vastly different from the structure of the classroom in whole-class or individualized instruction. When six to eight groups are in simultaneous operation, it becomes impractical, if not physically impossible, for the teacher to personally supervise all the groups. She cannot single-handedly see to it that groups run smoothly, that students understand what needs to be done, and how best to complete the task. The teacher cannot — nor should she — take it for granted that all students benefit equally from the group processes and/or contribute substantially to the group product.

This structural change in classroom organization necessitates changes in its management and a redefinition of the traditional roles of teacher and student. When students work in groups, the teacher is no longer the focal point in the classroom, sole provider of information and knowledge, constantly regulating and closely directing the students' behavior and learning. Instead, the students become responsible for their own and their group mates' learning. Cohen (1986) calls this process delegating authority, meaning that the teacher delegates to the groups, and to the individuals in these groups, the authority and the responsibility for productive group management, for ensuring group members' engagement in learning, and their completion of the task.

Redefining their traditional role doesn't come easily for many teachers. Some struggle with no longer being "the precious dot in the center of the steadily revolving wheel" (see Case 16). Others worry that

without their constant supervision, the classroom might deteriorate into chaos, i.e., students will not understand what needs to be done, they will make too many mistakes, and they won't complete their assignments. When teachers delegate authority, they poignantly ask themselves how far can and should such delegation of authority go? When do you intervene (see Case 1)? Do you let students fail (see Cases 4 and 10)? Will students be able to work out conflicts on their own (see Cases 8 and 9)?

When the teacher successfully delegates authority, students talk and work together to find out what they are expected to do and how they should go about solving the problems assigned to them. When students engage in groupwork on intellectually demanding tasks, the more they talk and work together, the more they learn (Cohen, Lotan & Leechor, 1989; Cohen, Lotan & Holthuis, 1995).

However, just as redefining the role of the teacher creates its own challenges, so does redefining the role of the student — working in groups doesn't come naturally or easily for many of us. Asking for help or assisting classmates who ask for help used to be called cheating, and was (and in many settings still is) heavily sanctioned. Individual effort and accomplishment are still highly rewarded in schools and in society. For successful groupwork, students need to learn new and different social skills: how to ask for help and how to assist those who ask for help, how to explain patiently, how to be productive and responsible group members, and how to respect and value other people's contributions. Educators found that before students can work in groups successfully, skills for cooperation and collaboration need to be taught explicitly and practiced consistently before they become internalized, routine behaviors of students in groups. Adequate preparation of students for groupwork is a recurring theme in the cases in this book (see the grid on p. iii in the Facilitator's Guide).

Assigning to students in groups specific procedural roles (e.g., facilitator, materials manager, timer, reporter, recorder, safety officer, harmonizer, and others as necessary), helps the teacher to better delegate authority. Every member of the group plays a different role, and the roles rotate. For example, the facilitator sees to it that everyone understands what to do, gets help when necessary, and participates in group interactions. The recorder keeps notes of the group's discussions and checks to see if individual reports have been completed. The materials manager sees that the group has all the equipment necessary and that the tables are cleared at the end of the lesson.

When well implemented, roles can assure that the groups run smoothly and that individuals know what needs to be done. However, like learning how to cooperate, playing the roles will not happen naturally for students. The behaviors that accompany each role must be made explicit, discussed and practiced. Many teachers find the use of roles helpful as they take care of the many necessary, yet mundane minutiae of instruction, not only freeing the teacher of the burden of micromanaging the groups, but also allowing her to turn her attention to the real business of teaching — probing for understanding, delving into the content, stimulating and extending students' thinking.

LEARNING TASKS FOR PRODUCTIVE GROUPWORK

An often unrecognized element of a successful groupwork lesson is a sound group task. Researchers (Cohen, 1995; Zhining Qin, Johnson & Johnson, 1995; Lotan, forthcoming) distinguish between problem-solving, open-ended, "ill-structured" tasks and routine, lower-level tasks (e.g., decoding and recall of factual information). These researchers also distinguish between purely linguistic tasks, tasks that require traditional academic skills (reading, writing, computing), and tasks that require many different intellectual abilities for their successful completion.

Routine, well-defined tasks have clear procedures, steps to be followed, and usually a right or wrong answer. Students can complete such tasks by carefully following directions, completing sentences, applying well-defined algorithms, and looking up and possibly memorizing information. While groupwork might not be essential for completing such tasks, it can benefit many students. Researchers (e.g., Webb, 1982) emphasize the academic benefits for students who provide help to their peers by explaining, modeling, and practicing, as well as for those who receive such help.

In contrast, when students work on problem-solving, open-ended tasks, they deal with many uncertainties: they might explore different alternatives and come up with legitimately different solutions. In a recent synthesis of research, Qin, Johnson and Johnson (1995) found that groupwork produces greater gains with such problem-solving, non-exclusively linguistic tasks.

What are sound, problem solving group tasks? The essential features of such tasks are: 1) open-endedness of the final product or solution, as well as open-endedness in the process of getting to that product, 2) the use of many different intellectual dimensions for successful completion of the task, 3) positive interdependence and individual accountability embedded in the task, and 4) an underlying "big idea," a central disciplinary concept, or important subject matter content.

Sound group tasks are as close as possible to real life situations, problems, or dilemmas. Like real life problems, such group tasks are uncertain in their outcome and in the ways one can go about finding solutions. Open-ended, problem-solving questions and activities ask for students' experiences, opinions, and interpretations. Beyond the who, what, and what happened, students reflect on why and how things happened as they did, and could they have happened differently. In such activities, students analyze and evaluate, discuss cause and effect, explore controversial issues, and draw conclusions.

Many teachers have found that students handle a task's uncertainty with varying degrees of comfort and success (see, for example, Cases 2, 4, 7, 10, and 16). Some groups proceed with no major flare-ups, particularly if they have been carefully prepared for groupwork. Others find more than one legitimate outcome and more than one possible solution frustrating, if not infuriating.

Rich group tasks require many different skills and multiple intellectual abilities for their successful completion. They allow students to contribute their various strengths, talents, or multiple intelligences (see Gardner, 1983) and they provide opportunities to further develop these skills. When tasks are multi-dimensional, more students have more opportunities to show intellectual competence, more ways of being smart. By making tasks multi-dimensional rather than uni-dimensional along the basic academic skills of reading and writing, educators are not only redefining the learning task, but also the social system of the classroom which has traditionally divided students into "smart" and "dumb." Consistently, multi-dimensional, multiple-ability tasks are a precondition for providing more opportunities for more students to show "smarts" and be perceived as such by the teacher and by their peers.

Group tasks that include multiple abilities can serve an additional purpose. They attract more students to the task and entice them to participate, thus opening additional avenues for students to access the learning task. Students who are still learning to read might be drawn to a task by looking at and analyzing a photograph or a video clip. Some students might be lured to the task and respond more readily when listening to an audio tape of a song, a speech, or a story. Students who are just now learning English might understand instruction to the task better and faster as they work with real objects, manipulatives, and three-dimensional models (see Case 13). Students who still have difficulty reading might access information related to the activity from a graph, a matrix, or a cartoon — information that

has traditionally been conveyed exclusively through text. Many students who are turned off by traditional learning activities, when given the opportunity to participate through these alternate routes, show improvement in their traditional academic skills such as reading and writing. Through participation in multiple-ability learning tasks, students are practicing traditional academic skills in a meaningful context for a “real” reason: to understand, to communicate, to contribute.

By definition, group tasks need to create and support interdependence among members of a group. Positive interdependence is the essence of collaboration (Johnson, Johnson, & Holubek, 1986). If a single student were able to complete a task by himself or herself, there would be scant incentive for groupwork — since groupwork usually requires additional effort and is often less efficient than individual work. Interdependence is enhanced when the students are accountable for a group product to which all members have contributed. When tasks are sufficiently rich, i.e., open-ended, include multiple abilities, and there is a limit on the amount of time the teacher and the class can devote to the activity (and the teacher can create a sense of urgency regarding groupwork), then students will have to rely on one another to understand and complete the task.

Though interdependence is built into rich group tasks, teachers also worry about holding each student personally accountable for contributing to the group’s success and for mastering the concepts embedded in the activity. Written reports completed individually after a group activity are often useful for ensuring such individual accountability.

As mentioned earlier, groupwork is particularly beneficial when conceptual learning, problem solving, and deep understanding of content and subject matter (L. Shulman) are the goals of instruction. To learn central concepts or big ideas of a discipline, students need to have the opportunity to interact, discuss, and clarify their thoughts about such content. That is why well-designed group activities address a big idea, speak to an essential question, or invoke a central disciplinary concept with which students will grapple.

Well-crafted group activities are excellent opportunities for students to examine these central concepts and big questions from different perspectives, and propose different alternatives and solutions to the problems. For example, the teacher-author of Case 5 of this book designed a unit in which students explore the concept of density in various settings. However, this example of “less is more” creates a further dilemma. Whereas previously the teacher had devoted but a single period to the difficult concept of density, when using groupwork she spent over four days exploring the same concept, albeit in different contexts and with different problems. This dilemma of breadth (i.e., content coverage) vs. depth is also addressed by the author of Case 14.

EQUAL ACCESS AND PARTICIPATION

Many teachers dread but quickly recognize the uncomfortable yet familiar situation in groupwork when one student dominates the interaction and takes over the group, telling other people what to do and how to do it by imposing his or her opinion — at best, sits quietly and unobtrusively as another student withdraws from the group; at worst, becomes disruptive and sabotages other people’s work. Teachers have often noticed that those students who are seen as smart and are also popular (i.e., high status students) participate more in groupwork than those who are perceived as weak in the subject matter and who have few or no friends. Cohen (1982) has called this relationship between status and rate of participation in small group settings a status problem. Unless educators address this problem and break

this well-documented connection between status and participation (Cohen, Lotan & Catanzarite, 1990; Cohen & Lotan, 1995), the rich get richer and the learning gap increases.

Explicitly or implicitly, a number of teacher-authors in this casebook touch upon dilemmas concerning unequal opportunities for students to learn, to participate, or to have access to the materials (see the grid on p. iii in the Facilitator's Guide). The authors vividly recall their worries, anxieties, and feelings of sheer helplessness in their interactions with students who have low academic skills (see Cases 10, 11, 13), who are divergent thinkers and behave differently from everyone else in the class (Case 12), who are newcomers and don't speak English (Cases 7 and 16), or who have the uncanny ability to "push a teacher's buttons" (Case 8). More than anything, these teachers would like to be able to successfully address these problems of status, to level the playing field, and provide all students with equal opportunities for learning and academic success.

Some authors of cases in this book (see the grid on p. iii in the Facilitator's Guide) recount their experiences with Complex Instruction, a model of groupwork in which status problems are addressed directly and explicitly. A more detailed description of Complex Instruction follows in a later part of this Introduction.

ASSESSMENT OF GROUPWORK

Not only is assessment of groupwork currently an underdeveloped component of groupwork, it also "raises tough questions with many unresolved answers" (see Case 5). In this case, the teacher addresses the lack of a match between the mode of instruction she was using (groupwork, which relies on collaboration and open-ended tasks around the concept of density), and the quiz she used to assess students' understanding (a multiple-choice, individual test in which students were asked to use formulas to calculate density). This lack of a tight connection between instruction and assessment led to grave disappointment. Although both teacher and students spent much time and effort on the unit on density, students did no better on the quiz than students in previous years when the teacher devoted but one period to this concept. After much soul-searching, the teacher and her students realized that the tools for assessment needed to be more closely aligned with the purposes and content of groupwork. On a second test, when students themselves participated in its design and when criteria for evaluation were clear from the very beginning, students' achievements improved.

In addition to closely connecting what one teaches to what one tests for, many more questions arise around assessment of groupwork. When assessing the quality of a group product, does the teacher assign a group grade or an individual grade? How can a teacher be sure of the relative contribution of each member of the group? What about the "social loafers," "the free riders," "the suckers" whom others take advantage of? How will the teacher assess competence of individuals in their thinking skills and in subject matter knowledge after group collaboration? What are the important social skills related to groupwork, and how will the teacher measure students' ability to communicate, make decisions, negotiate, resolve conflicts, in short, collaborate productively and function effectively as members of a team?

In a recent article, Webb (1995) reviews the dilemmas surrounding two different, sometimes competing goals of groupwork: group productivity versus individual learning from collaborative groupwork.

When the goal of groupwork is group productivity, evaluation focuses on the output of the group. Either the quantity of output, or the quality of the product, or both, may be

evaluated (for example, the quantity of ideas for solving a problem, the quality of a solution to a problem). When the goal of groupwork is learning on the part of individual members, in contrast, evaluation focuses on learning outcomes, not the quality of the group's performance on the group task. Because the processes and outcomes of group collaboration may differ depending on whether the goal is individual learning or group productivity, it is important that the purpose of the assessment, the goal of groupwork and the group processes supposed to contribute to those goals be specified clearly (p. 241).

To motivate their students, many teachers often grade them on their participation in groupwork. However, a note of caution is in order here: as explained earlier, students might be hampered in their participation not because they lack motivation or willingness to participate. More often than not, they are shut out from the group and ignored by their peers because of the existence of a status problem. In such cases, it would be quite unfair to blame these students, admonish them for not putting out enough effort, or punish them by lowering their grade.

MODELS OF GROUPWORK

Different teams of researchers have developed a range of approaches to groupwork and cooperative learning, each approach reflecting the researchers' distinct theoretical emphasis. Teachers who make cooperative learning central to their pedagogy vary the approach to groupwork taken, depending on their instructional purpose. Typically, they draw from these different approaches to craft a unique and often eclectic synthesis that serves them in their classrooms and with their students. The annotated bibliography at the end of this volume describes several well-regarded approaches (see section entitled "Models of Cooperative Learning"). Several of the cases in this volume describe classrooms where teachers have created a unique approach to groupwork (e.g., Cases 2, 3, 7, 8, 10, and 14). Other cases, however, are set in the context of a specific approach to groupwork, namely, Complex Instruction (CI) or Fostering a Community of Learners (FCL). The teachers who authored these cases worked closely with the research teams, studied the theoretical basis for the approach, and participated in ongoing professional development to support their implementation. Because these cases are set in a specific context, we briefly introduce Complex Instruction and Fostering a Community of Learners.

Complex Instruction. Developed by Elizabeth Cohen and her research staff, Complex Instruction (CI) is an approach designed for heterogeneous classrooms. In CI classrooms, the aim is to teach all students high-level concepts and material. CI addresses a common instructional dilemma in groupwork: unequal participation, which in turn leads to unequal learning. Unequal interaction is often the direct result of unresolved status problems in the classroom.

To break the link between status and the rate of participation, i.e., to weaken the status problems (if not to eliminate them entirely), teachers skilled in Complex Instruction use specific interventions called status treatments. These treatments are the multiple ability orientation and the assignment of competence. With the multiple ability orientation to a multiple ability task, the teacher widens everyone's conception of what it means to be "smart." The teacher publicly recognizes the wealth of intellectual abilities that are relevant and valued in the classroom and in daily life, and she stresses that students will have different strengths and weaknesses among these abilities. She might say, for instance, "No one will have all the abilities necessary to do this task, but everyone will have some of the abilities." The message she communicates is not a simplistic "cooperate because it is the nice thing to do." Rather, it is "cooperate because you need each other." When successful, the multiple abilities treatment leaves

each student thinking, "I may not be able to do everything in the assignment, but I certainly can do some of this. I have something to contribute to the task."

The assignment of competence strategy is designed to change perceptions and, thus, expectations of self and others of a low status person. In this strategy, the teacher recognizes publicly the specific and relevant intellectual contributions of individual members of the group. Thus, when an assignment of competence is successful, rather than having uniformly low expectations for low status group members and high expectations for high status members, students enter each task with a mixed set of expectations. In each new groupwork situation, group members will expect the low status student to be able to contribute or accomplish more than before. In the best of all possible worlds, this change in expectations becomes a self-fulfilling prophecy, with the result that the low status student participates more meaningfully, and eventually learns more.

To implement status treatments successfully, first teachers need to recognize a status problem. Next, they need to analyze group tasks to make it clear to their students and to themselves what intellectual abilities are indeed necessary for successful completion. Finally, they need to learn how to set the stage and increase opportunities for low status students to show competence and be recognized for it.

Many teachers feel uncomfortable singling out individual students and publicly recognizing them. However, there is strong evidence (Cohen & Lotan, 1995) to suggest that these treatments are effective in boosting the level of participation of low status students, which in turn raises their learning gains. Furthermore, these strategies do not diminish the rate of participation of high status students. Participation in groups is not a zero-sum game. In Cases 11, 13, and 16, teachers describe how they employ these strategies to improve low status students' opportunities to interact, and by extension, learn in groupwork settings.

In CI, treatment of status problems takes place in the context of a transformed classroom. There is a special management system, and the curricular materials are designed to enable students to use multiple intellectual abilities and to foster interdependence. To provide time for the teacher to respond to status problems and to teach higher level concepts, she delegates managerial authority to her students. Through the use of cooperative norms, procedural roles, and an activity card, she makes students responsible for their behavior and for staying on task. Curricular materials that are appropriate for CI fulfill four criteria: they are organized around a central concept or "big idea," they are open-ended and uncertain, they require students to use multiple-intellectual abilities to complete them, and they create positive interdependence and demand individual accountability. Cases 5 and 15 describe in detail examples of CI's specialized curriculum.

Fostering a Community of Learners. Developed by Ann Brown and Joe Campione, FCL is an approach to groupwork for which deep disciplinary understanding and the development of skills of critical literacy are central. In FCL classrooms, a culture of inquiry and community is cultivated. Students come to understand generative, lithe ideas within a discipline because they work collaboratively with their peers, and because they routinely reflect upon or monitor their comprehension of ideas. Furthermore, the ideas are presented in a manner that encourages students to explore their questions and thus to be intrinsically interested in the material. The approach is based on Vygotsky's theories of intellectual and social development and Brown's conceptions of "comprehension monitoring" in group settings. Brown and Campione describe FCL as a system with three key parts: students engage in collaborative research, then share their information and understandings through jigsaw (Aronson, 1978) and other activities, and finally apply what they have learned to a new and more difficult task that is

reported in a public exhibition or performance. In an FCL classroom, students engage in a range of groupwork activities as they research, share, and apply material studied. These different activities represent an elegant synthesis of several well-regarded approaches to groupwork, e.g., jigsaw (Aronson, 1978), reciprocal teaching (Palinscar & Brown, 1984), group investigation (Sharan & Sharan, 1992), and writing groups that follow the National Writing Project process approach to composing text. Cases 1, 6, and 12 are all set in the context of FCL classrooms.

CHAPTER I:
CONCEPTIONS OF TEACHING AND LEARNING

Case 1

WHEN DO YOU INTERVENE?

Both my personal and professional experience have taught me that people don't hear something until they are ready. As a veteran teacher, I know this is true for my students as well. Yet all too often, I find myself trying to give them the "right answer" — as if there were one. So in recent years I've tried to break myself of this habit; however, this has been problematic.

I teach 5th and 6th grade in an inner-city school where for the last three years, I have participated in a research project designed by Ann Brown and Joe Campione from the University of California, Berkeley. The thrust of the program, which entails extensive restructuring of many aspects of the daily curricula, is to create a classroom where students engage in their own research in the field of biological sciences. The project's ultimate goal is for students to become literate in a number of areas, including reading, writing, argumentation, and the discourse of science.

As a result of the restructuring, there has been a blending of whole class and small group work, in which students do collaborative research projects. During small group sessions, students do research, participate in Reciprocal Teaching¹ and work on writing a group paper about their research findings. Once the research is complete, the groups re-form into a jigsaw configuration.² This exciting role reversal presents the adult facilitator with an interesting question — what to do when one of the students, in his or her role as teacher, presents incorrect information? Should there be some sort of intervention? If so, when and how?

I had to answer these questions for myself this year when my students undertook a research project about the island of Borneo.

To begin the project, I presented the students with a true story about a serious outbreak of malaria on the island: After many people died, the authorities had decided to spray DDT to kill the mosquitoes, which were carrying the malaria. What they hadn't anticipated was DDT's effect on the ecosystem.

¹ Reciprocal Teaching (RT) was designed by Ann Marie Palincsar and Ann Brown in 1984. RT provides students with a set of cognitive strategies which enable the reader to have greater access and understanding of the text. Through a variety of questions, first modeled by an adult, the child learns the importance of clarifying, predicting, summarizing and interpreting newly revealed material. After seeing strategies modeled by an adult, students are encouraged to take turns being the "teacher." Eventually, all RT groups are directed by the students.

² Jigsaw configurations, a model of groupwork developed by Aronson, has two stages. In a typical classroom, the teacher divides the students into approximately five groups. During the first stage, the teacher assigns each group a specific topic about which the members will become expert; the group conducts research or discusses the topic and ensures that all members understand the material. During the second stage, the teacher reconfigures the groups so that each newly formed group has one expert on each of the topics; the experts share their knowledge with the others so that all have a deep understanding of the material.

My students were challenged to first uncover and understand the complexities of the Borneo dilemma and then consider possible solutions. Once familiar with the elements that contributed to this dilemma, the students generated a number of questions about the situation. The questions served as a springboard from which individual research groups designed their own research project. Each group investigated individual topics, among them: What is DDT? Why did this country decide to use it? What is malaria? What, if any, ethical issues were (or should be) considered when making the decision to use a pesticide?

After completing their research, all students participated in a final jigsaw session. Each student adopted the attitude of someone having the "right" information, presenting the newly acquired knowledge with conviction. Yet, as emergent experts in a new domain, students' newly formed theories are sometimes erroneous. And as the classroom teacher, my responsibility is to decide when it is or isn't important to inject correct information. In this case the issue arose first with Lakesha.

Lakesha's group had researched general information about the island of Borneo, and she was deemed the resident expert. Everything the other students would learn about the island was to come from Lakesha who, like all the other students, took this heady responsibility very seriously.

A fellow student, Ugochi, asked, "Is Borneo like New York?" "Yes," Lakesha responded, "it is just like New York, but it has more trees."

This was a significant error. In this lesson the students were supposed to understand that the people of Borneo made widespread use of DDT because of a serious malaria outbreak, and one of the reasons malaria was so widespread was that Borneo is a tropical country. New York City's significantly different climate makes it less likely that malaria would be a problem there.

When I heard Lakesha's answer, I considered whether to intervene. On the one hand, I wondered, if the students didn't understand that Borneo's vast swampy areas led to the increased incidences of malaria, how could they understand why the government agreed to spray DDT? On the other hand, I thought, this was a very low status child. If I corrected Lakesha during her presentation would she retain her power in the group as the "expert"? I decided not to intervene.

That evening I discussed the incident with a colleague, one of the program's designers. We agreed that this situation was problematic. Sometimes incorrect information can have broader ramifications, confusing students as they try to come to new understanding about complex situations. Moreover, our project is not about unbridled discovery learning. We want students to have a sound science framework and a deep understanding of certain important biological concepts.

During our discussion, my colleague reminded me of the importance of what she calls "opportunistic seeding" — waiting for the right moment to drop some pearls of wisdom, with the understanding that we only hear what we are ready to hear. Rather than intervene directly to correct Lakesha's misinformation, I decided to wait for an opportune moment to drop a seed that might lead students to think of Borneo as a tropical place.

I didn't have to wait long. The next jigsaw session topic was malaria. Emecia, the student expert, began her talk by saying that in order to grow malaria you needed a wet, swampy place. Seeing my chance, I raised my hand. When Emecia called on me, I said, "I am confused. Yesterday Lakesha said Borneo was like New York City, and I don't think of New York City as swampy. So how can malaria be a problem?"

Lakesha immediately took the bait, saying, "You misunderstood me. Only part of Borneo is like New York — the cities."

At this point Ugochi chimed in, "Yeah, don't you remember? Borneo has tropical rain forests too. That's where the swampy areas are."

This started a lively discussion about the terrain of Borneo and why it's conducive to the spread of malaria. The students looked at me in amazement, wondering how I could have missed this most salient of points. But I smiled smugly to myself, feeling as if all was right with the world — until the next day when Doranne presented as the expert on DDT.

During her presentation, Doranne was asked to clarify a point in her paper. She had written that DDT "was more dangerous for children because it gets in their bodies and then it continues to grow as [the children] get bigger and bigger. The bigger the child gets, the more DDT it has in their system."

"Oh no," I thought. This was definitely a potentially serious misunderstanding. Once again I had to make a quick decision. To intervene or not? To set this kid straight or to wait and deal with it in a whole class lesson after the jigsaw? Because I felt that Doranne was very self-confident, I decided to question her about her conjecture.

I said, "It is my understanding that DDT is a pesticide, a non-living thing. I think there is a characteristic missing for it to be able to grow. What is that?" After some discussion, we concluded that in order for something to grow, that something must be alive. So I asked Doranne, "Is DDT alive?"

When she said no, I pressed further, asking, "Then how does a child get more DDT into his system?" Doranne explained that initially a child might eat a fruit or vegetable that has been sprayed with DDT. After that the DDT gets in the body and it grows.

At this point I fell back into my old teacher stance, continuing to debate this point in hopes that Doranne would give in. But she held her ground, refusing to be swayed by the logic of my argument.

Not only did Doranne remain unconvinced by my logic, but the jigsaw session, which had only moments before been child-centered, was now totally focused on my input. Everyone was looking at me to see what pearls of wisdom I had to impart, trying to understand my "right" way of thinking. The students had been looking at each other, building a learning community amongst themselves and enjoying each other's intellectual company; now I was the center of attention, with little or nothing to show for it.

When I realized what had happened, I tried to give the floor back to the students by asking the next child to present. I backed off physically, making it clear that I was still listening, but trying to shift the focus of attention back to the students.

The focus did shift. But as I continued to observe, I realized that Doranne, the child I had "tried to correct," never spoke again during that jigsaw session. I was reminded of — in fact, haunted by — something I had read in Courtney Cazden's book, *Classroom Discourse*,³ when she challenges t

³ Cazden, C. B. (1988). *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Heinemann Press.

traditional role of the teacher: "Teachers have the right to speak at any time and to any person; they can fill any silence or interrupt any speaker; they can speak to a student anywhere in the room and in any volume or tone of voice" (p. 54). Had I overextended my power as the teacher to the detriment of that child?

What should I have done? I still don't know. Clearly, there are no easy answers. In the one instance, intervention helped. In the other, it hindered.

When I initially changed my classroom to accommodate groupwork, I talked with my students about how this would increase their independence and responsibility. We discussed how everyone would become an expert as we built a community that valued the sharing of knowledge. Those were lofty notions. But how can we bring our highest and best ideas into the classroom while at the same time safeguarding educational and intellectual integrity?

Case 2

GROUPWORK? RATS!

Six 2nd grade students stood around a rectangular library table covered with butcher paper. It was their turn to get a close look at our classroom rat, Popsicle, and maybe even pet her. As part of a year-long study of animals, their task for the next 10 minutes was to observe the rat, watch her movements and mark with an "x" wherever she stopped on the table. Next, they would describe her movements or draw her in their logs. I reviewed the guidelines and took the rat out of the cage.

As I started to leave, Michelle asked if they could hold the rat. I replied, "Not this time. Wait until you're recording in your logs. You can take turns holding her while you write. For now just watch and map how she moves. You can call her and tap gently on the table. You can coax her to follow a pencil." I then walked away to check in with the other four groups.

The group, formed by random selection, started out quietly, members standing side by side around their table. No one wanted the rat to go over the edge. I heard:

"Make an 'x' there."

"She's not coming to my end."

"Quit hitting the table."

"She's scared."

After a few minutes, Popsicle lingered at one end of the table. The whole group crowded there except for John, who had become a self-appointed organizer. John circled the table, saying in a loud voice, "We need some here and here and here." He kept reminding the others that someone should stand near the opposite end because the rat moved fast. Terrell went to the other end briefly, but quickly returned, crowding into the place he'd left. A minute later Michelle picked up Popsicle, cradling the rat in her arms. But when a dropping fell, she screamed. Lisa giggled and backed up, pushing Joshua.

"See!" John yelled. "You weren't supposed to pick her up."

Pointing toward the rat dropping, Lauren goaded Michelle saying, "You should make an 'x' there." Michelle hit her.

When Terrell picked up the rat and held it in front of Lauren's face, John yelled, "You aren't being respectful." The rat squirmed away from Terrell.

It was the last straw for a group on the edge of chaos. The room, always too noisy with kids' voices bouncing from the wooden walls and rafters, teetered toward disorder. I walked over to the table, scooped up Popsicle and put her in the cage. I took the butcher paper off and told the group to put their heads down, hoping everyone would cool off. They sat with their heads down for the next 10 minutes while I went around helping the other groups. But I kept an authoritarian teacher's eye on them, as well as on the other groups.

* * * * *

After 16 years as a primary teacher, I had started this school year in a new role — science specialty teacher for 350 students, grades one to five at an inner-city elementary school. Eighty percent of the students are African American; the others are Hispanic, Filipino, Iranian, Southeast Asian and white. I wondered how I was ever going to learn their names, much less facilitate learning the scientific method in a "science lab." To try to know them better, I used student surveys.

Throughout the year, two questions framed my teaching. How does a community of learners develop for students working in groups with hands-on activities for the first time? How can predictable processes be established to support positive study habits when students meet twice a week for 50-minute periods in "science lab"? By mid-year, three routines helped to make a sense of community:

Community building activities. Classes started or ended with community building activities, such as community circle. Children sat in a circle for a structured sharing and listening activity. The sharing was brief. It focused on a specific topic. Sometimes the topic related to science, but often we shared weekend activities, favorites, and other opinions.

Rotating work stations. Gradually I developed a protocol for rotating stations. Children worked each semester in randomly selected fixed groups. Some stations were related — for example, observing our rat, answering class-generated questions about the rat, and writing and creating a page for the pop-up rat book. At another station students explored the volume of various containers to get ready for a lesson about density. At the "Changes" stations, students observed and recorded the changes in plants, a classroom compost box, a beaker of water, and various crystals. Every third or fourth time we met, I guided a whole group activity to set up for the "Changes" station, or I gave them a directed lesson.

Writing in learning logs. Students worked, observed, and explored while recording in logs. At the end of each class, the log entries were shared.

Each group had a new leader twice a month who passed out materials, initiated the work process and reported the group's process at the end of each session. Sometimes they worked as individuals at the same table, sometimes as partners, sometimes in two subgroups of three, and sometimes they worked on a table group activity.

* * * * *

In this particular project, I wanted the group to discover that observation and interaction lead to authentic learning. I hoped that by working together to map the rat's movements, the students would look more

closely at the variety of rat movements and begin to speculate together on the rat's abilities. I wanted to promote and honor students' ability to find their own way to work together. Because of this, I hadn't rushed over at once when I saw the first signs of difficulty.

After I finally intervened, I wondered if I shouldn't have first processed the flare-up both for the group and the class. But the other tables had quickly reengaged in their tasks and seemed to want to complete their work. Or maybe they just wanted to disassociate themselves from the rat group.

Hindsight tells me it's not surprising that working together to map out the rat's movement had produced anxiety in John. He struggles through school and says he does his best work when sitting by himself. Perhaps his anxiety, in turn, set off the rest of the group, which, as the first group to do this particular activity, was already a little insecure.

Did stressing the importance of their working together to produce the map negatively affect them? I considered spending a period preparing the students to map the rat's movements. But in my rush to get to the activity, we only spent a few minutes practicing their social strategies. After all, they had cooperated during a prior animal observation task in which they looked at the rat together, talked to each other, then individually recorded in their logs. A quick look at some of those earlier log entries reveals that the group had been cooperative and engaged in their observation:

It scratched me. (John)

Popsicle the rat. Popsicle is a white rat. Popsicle likes Michelle. Popsicle is looking at me. Popsicle likes to play. (Lauren)

He is sniffing and he is standing up. He was sniffing on my book. He has red eyes. His claws were on my book. (Jamal)

Popsicle is an albino rat. That means he has red eyes. He tried to go off the table sometimes. If you put your pencil high in the air, he will stand up. When the teacher got him out of the cage, his tail was spinning around like a helicopter. (Lisa)

Their next group task closely mirrored the kind of work they routinely did in their classrooms: looking up answers to questions in a book. From a list of class questions about rats that students generated, the group selected three to five questions to answer as a group. Each pair of students used a different resource — books or a poster chart. They had to all agree on the answer to the question based on their previous observations, classroom instruction, and their resource material. Next they were to help each other write their logs. I asked them to focus on their work together, not the number of questions they could answer in their logs. I went as far as saying I expected them to be working on the same question.

I thought this assignment seemed dull compared to the hands-on activities at the other tables, but the group nodded and grabbed their pencils. Lisa, an accomplished reader, quickly began to lead them through the questions. At first, Michelle and John, easily frustrated with the discussion, asked me for the right answer. I reminded them that I wouldn't help until each pair had looked through their resources, the group agreed they needed help, and everyone raised their hands together. They no longer asked. Somehow it became a challenge to find the answer as a group.

Whenever I checked in they were working. They read aloud the first question and passages from their books. They informally jigsawed and worked in pairs on the next two questions. They excitedly called the other pairs over when they found information to back up their ideas. Individuals occasionally strayed from the task, just talking, but they all returned to their work.

It's true that not everyone engaged to the same degree in this activity. Mia and John participated marginally in the discussion and worked intermittently with their partners, looking through their book. They copied the answers while the others composed and discussed spelling as a group. Yet the group's assessment of themselves at the end shows they felt they had all worked together and done a good job.

Like the students, I was pleased to see half a page of questions and answers written in their logs, a measurable accomplishment for second graders, who often like to quantify their work. Yet I wanted them to value, not just quantity of output, but their own process. So I reminded them and the rest of the class that these were questions that *they* had asked about rats. I told them they had been thinking, investigating, and observing the animals' activities in the classroom, just like scientists.

Did students consider their work good in this task because the question-answer activity was familiar? Did they, like me, struggle with factoring in the level of difficulty when assessing the success or failure of an assignment? The question-answer activity was simple, with a measurable product to assess. By contrast, the rat mapping activity had demanded more attention, self-control, and cooperation, and success would have been less quantifiable. Log recordings would have provided just a peek at the knowledge the students gained from their observations and interactions with each other. How do students consider complexity when assessing their work?

* * * * *

Now, after seven months in my new role, I still have many questions. The process and the outcomes of the two group episodes I described echoed the larger dilemmas that I struggled with throughout the year. The room was quieter and more orderly with large group instruction. Students called the more traditional reading and question-answer activities, real learning. Hands-on groupwork often required interaction that sent the room through increasingly uncomfortable noise levels amplified by the wooden ceiling and walls, threatening classroom order. Students didn't associate groupwork — even when successful — with real learning. I wonder if students feel less secure generating their own questions and finding answers from multiple resources than they are working with questions and “real” answers from a textbook. What can I do to expand their concept of “real learning”?

I also struggle with the 50-minute period and groupwork organization. Are rotating learning stations the best structure considering time constraints? How much time should I devote to modeling and practicing group process and problem-solving strategies? As a teacher I want to construct some kind of rhythm to the day that meshes with my coaching style of teaching. Whole-class activities each session seem like isolated experiences, with me having to orchestrate the links between them. Working in stations, in contrast, gives students a preview of their next task, a chance to revisit an activity through sharing student work, and a sense of familiarity as station activities are gradually modified. But I rarely squeeze in periods for modeling and practicing social strategies and group problem-solving techniques. Do I need to spend more time for these kinds of lessons? Is my program of working in stations too ambitious, too complicated? Will the students see the work they do in stations as both learning and fun? Would a more direct instructional approach that includes whole class hands-on activities be more effective than using rotation exclusively?

Case 3

POOR PERIOD THREE!

I stand at my classroom door to greet my students. Soon period three will begin. "Good morning Latisha, how are you?"

"What are we doing today?" she responds.

I try not to sound too mechanical. "I'll explain to everyone in class at once, Latisha." She plops into her seat and stares; her need for nurturing goes unmet.

"Hi Jose, what's up?"

"I hate my group," he says. "Let me sit near Donny."

"That's not negotiable, Jose." Noticing my robot tone, I add, "You'll have to work with all kinds of people in this world and here's the place to learn!" I see pouting and, again, pressing needs not being met.

Period three is one of six 8th grade social studies classes I teach each day. We cover U.S. history, government, and geography. Our school draws from what is largely a lower-middle class neighborhood with an ethnically diverse population, the majority being Latino.

Two-and-a-half years ago, I became an advocate of cooperative group learning. Especially for our large "sheltered" population, it seemed to me group interaction would be preferable to struggling alone in silence. During my conversion to groupwork, I was trained to never give up — if things aren't working out, keep discussing it with the class until they cooperate. Because of my relative success instructing in cooperative groups, I'd been selected to be a peer coach, observing and helping other teachers to plan, manage and evaluate their groupwork.

Thus, feeling a little smug, I entered into group instruction this year with a good deal of confidence. I met my match with period three. In my mind I call them "Poor Period Three." This is one class in the district that merits a full time Resource Specialist Program teaching aide because we have nine — yes nine — special education students. We also have 10 sheltered students who have recently left bilingual classes and are now making the transition to full-time English instruction. The make-up of this class creates a disturbing chemistry that is felt within 30 seconds of the starting bell. I usually place them in groups of four or five, then invariably watch in frozen amazement as they torment each other. I persist as I was trained to do, but find myself wondering whether groupwork is appropriate for this uncooperative class of 28 students, skewed with a disproportionate number of emotionally needy individuals.

That question loomed especially large one day when we were reviewing the exploration and colonial settlement of the United States. To show how hard it was for early settlements to survive in the New World, I chose a group activity called "Elementary Eagle." In the context of this lesson, the Elementary Eagle is a boat that has just crossed the Atlantic Ocean — in approximately 1604 — and has landed along the coast near what is today the James River in Virginia.

Before the students break into groups, we discuss some strategies our forefathers used to stay alive, such as trading with the Native Americans. At this point, a student to whom I refer as "Mr. Impossible" (because he does not belong in a regular classroom by any stretch of the most patient teacher's imagination) starts to mimic Mr. Rogers on TV. "I'm going to be your har-r-monizer today, group," he quips, following the remark with a phony, exaggerated grin. As is common with "Mr. Impossible," he chooses an inopportune moment to interrupt — just when I have all of the students somewhat focused, the moment when I'm ready to switch tracks and say those magic words: "You are now in your groups!" Today, I say them anyway, quickly, before another student, whom I call "It's-not-my-fault-Walt" can chime in, as he is prone to do. This year Walt receives no extra support from our school district because his test scores are too low for special education and too high for the mentally retarded classes. Walt is as low status as you can get.

Once the groups are underway, I notice that Walt is on task — at least initially. Each member of the group reads a role — either fisherman, farmer, carpenter, merchant, or soldier. As a group they are supposed to study the map provided and decide on the best place to settle and survive in the new land. But after reading his role, Walt loses interest and leaves his group to distract someone in another group.

"Walt, there is no interaction between groups," I say. "We've been over the group ground rules several times."

"But we were just talking about the work," pleads It's-not-my-fault-Walt.

"What about the work, Walt?" I ask, even as I realize that he's hooked me.

"Can we leave early for lunch?" is his response.

"Only the facilitator in the group is allowed to ask the teacher questions, Walt," I reply with yet another of my clinical answers. I then wonder if anyone in Walt's group understands the task, and I ask Grace if she is the group facilitator today. Grace, who in many ways fits her name and is probably the most responsible student in the class, tries valiantly to re-center the group. But she doesn't easily handle leadership roles. I suggest that other students in the group can help clarify the directions. At last they understand. Stan says: "You represent the view of the role you read, then we draw an X on the map on the spot where the group decides is the best place to settle. As a group we will present our reasons for our choice to the other groups and be prepared for them to challenge our reasoning."

In other classes this activity has usually turned out to be fun. Equally important, it stimulates higher level thinking skills. But not so in period three. As you may have predicted, we have to "batten down the hatches." We nearly avoid a simulation of World War III, with name-calling as the first-strike weapon. The more explosive personalities don't want to wait their turns. "Mr. Impossible" continues announcing with false grin, "I'm the ha-a-r-r-monizer." And the disinterested girls gravitate together to thumb through *Tiger Beat* magazine.

After nearly an entire period of ineffective groupwork, I spend the closing minutes of class, as I have been coached, debriefing with period three about why things are or are not working well. In this case, since they are not working well, we talk about how we can get them to work better. Because their stomachs and minds begin to grumble for lunch, my students try to pacify me with what they think I want to hear, answers they've read and now repeat from signs that are up in my classroom most of the year. We discuss what you can do if the facilitator in your group doesn't take charge, and we also role play positive body language to better understand its positive effects on the group members. When the role playing is met with a civil reaction, I see a glimmer of hope!

I dismiss students for lunch by groups, with the students who have cooperated most effectively leaving first. Usually a good strategy, in this case it results in name-calling among members of those groups dismissed last.

To sum it up, after 42 minutes with period three, I feel like a giant, emotion-filled ball being slammed from one side of the room to the other. There are just too many emotions flying around the room and rebounding off the walls. Whether it's because they lack experience in small group interaction or they lack self-esteem, or some combination of the two, creating a cooperative atmosphere is not something the students of period three seem able to accomplish.

At the end of the day I find myself wondering why I don't switch to the more traditional teacher-controlled setting with which these students are more familiar. Perhaps groupwork is not meant for *every* class. "It's okay to give up, Teri," I tell myself. Yet deep down I tell myself, it's *not* okay. I know I need to do *something*.

It's been several weeks since this episode and I notice some positive changes. I started with a compromise, opting to limit groupwork to one day a week. Then, I sought and received helpful advice from the other four teachers in our Interdisciplinary Team. But, the best move I made was to attend the after school football games.

Seven members of my third period are on the team, and each seemed both surprised and pleased to see that I cared enough to come to the games. They appreciated the individual attention that groupwork does not seem to provide for them. I felt that it was important to see them in a context in which they are successful because so often they seem uncomfortable in our classroom setting. Back in class I praised them for their cooperation in sports and wove this experience into groupwork at effective moments. Since my visits to the football games, my discipline problems have been cut in half. In retrospect I realize that many of my students in period three need an entire rooting section just for themselves in order to relax and learn in a group. I have also noticed a change since we took our field trip to Superior Court to see a real trial, followed by lunch at the pizza parlor. Seeing each other in a different situation — not sitting in chairs at desks — gives teacher and students a different perspective and appreciation of one another. There is a little less tension now.

I have also arranged for a "holding pen" for "Mr. Impossible," another supervised room where I can send him before he becomes too exasperating. "Mr. Impossible" is currently undergoing neurological testing. Meanwhile, "It's-not-my-fault-Walt" is being interviewed to qualify for some kind of support from the district.

Time also creates trust, which had been the missing ingredient. I am grateful too that I have been blessed with an easygoing nature, and most of all, that I have managed to maintain a positive attitude. You have

to! There is no choice. My goal is for these students to feel we are all on the *same* team and to understand that developing good group skills is more valuable than knowing which branch of government is granted the "elastic clause" or being able to regurgitate the contents of the Wilmot Proviso. I want them to understand that getting along is more valued than resistance.

"Time and trust," I whisper to myself every day at noon as I see them off. Then I sit down and eat my lunch, refueling for the "angels" in my afternoon classes.

Case 4

DO YOU LET KIDS FAIL?

During seven years of teaching chemistry, I have been surprised and disappointed at the extent to which students depend on me to confirm their ideas and to acknowledge that they are somehow correct or right. They are locked into learning the right answer, are often unable to adequately debate an opinion in contrast to their own, and seem totally unaware of the importance of the problem solving process. Most students define learning as knowing a collection of right answers. This differs significantly from my own high school experience.

I teach chemistry at a public high school that has some of the richest and poorest students in the San Francisco Bay Area. Approximately 50 ethnic groups are represented by our students, and my chemistry classes are an excellent reflection of the school's ethnic and academic diversity.

I went to a high school with a completely self-paced, self-motivated, independent learning program. I was allowed complete freedom in planning and implementing my secondary education. I was able to plan my class schedule on a daily basis, to create a list of requirements to demonstrate that I had learned the material, and to design performance-based criteria for evaluating my proficiency in a specific area.

No doubt influenced by this experience, my philosophy is that students need to take an active role in their education, to be responsible for their learning. They should learn as much from the process of identifying problems, hypothesizing solutions, analyzing the consequences of probable answers, and deciding upon a plan of action as they learn from the final solution.

I have often wondered whether students are limited to their narrow definition of learning because they have never been given an opportunity to experience the process of truly learning something for themselves. This year I decided to see if my students were able to function with more freedom. Using a cooperative learning teaching strategy called Complex Instruction,¹ I decided to provide my students with an opportunity to experience for themselves the discovery of learning – and of teaching.

The Complex Instruction model focuses on student-centered activities and emphasizes the dynamics of working cooperatively to solve problems. To ensure participation by all members of the group, each student performs a specific role. Students are responsible, not just for their own growth, but for the learning of the group.

¹ Complex Instruction, developed at Stanford University, is a groupwork model that emphasizes the development of higher-order thinking skills in heterogeneous classrooms. It addresses issues of status that arise in small groups.

In chemistry class I organized student groups who were to investigate the effects of concentration, temperature, and pressure on the behavior of gases. As background, they selected and read one to three pages from a large unit called the Behavior of Gases.

To ensure the completeness of the teaching assignment, within each group, each student performed a dual role. The roles were: Facilitator and Presentation Specialist; Reporter and Homework Specialist; Encourager and Evaluation Specialist; and Materials and Equipment Specialist. The students in each group learned the material, organized the information, planned a creative lesson, presented that lesson, designed a homework assignment, and then evaluated their peers' understanding of the material. In essence, they were the teachers for the unit.

My role was facilitator, or coach, for the groups. I recommended additional research material, suggested sources for supplies and listened to each group's plan of action. When group members asked me to validate their ideas, I responded by asking questions for them to reflect upon.

The groups were evaluated by me and four randomly selected classmates, using criteria designed by the class as a whole (see Peer Evaluation Form). After some discussion, the class agreed that the 25-minute presentations would be evaluated according to how well they followed the ground rules: 1) no more than five minutes of direct instruction (lecture); 2) the presentation required the use of a demo, lab, skit or game to provide interactive learning; 3) visual props or musical highlights were required; and 4) all members of the group would participate in the teaching process. The entire class would ultimately need to understand the information presented, and students were relying on each other as instructors.

Students used two 50-minute class periods to prepare their lesson plans. During that time, they met with me for approximately 15 minutes to discuss their presentation outline.

Reactions to this assignment were as diverse as the student body. Some groups were very confident about their newly acquired knowledge and anxious to teach the class. Others were in a panic and had already decided that their presentation would be a complete failure.

One group simply said, "Tell us what you want the class to learn and we will give it our best shot." Appalled at their attitude, I explained, "*You* are the teachers. You get to decide what the class should learn and how to present the information to your peers." "But how do you begin something like this?" asked Sarah, the Facilitator. Determined not to buy into their helplessness, I decided to answer every question with another question, unless safety was at stake. In this instance I asked Sarah, "What piece or pieces of information are the most important in your section?" The group members responded with facial expressions that would have intimidated a novice teacher. Ignoring the body language, I continued: "If you were limited to writing one sentence about this section of the text, what would it be? I suggest you write the sentence after you have discussed it, and I'll be back in a few minutes to see how you're doing." I could hear sounds of discontentment, but I was determined that this group was going to stand on its own feet. I was not going to come to the rescue.

When I returned to the group, it was evident that at least two members had a good feeling for the main points of the section. I overheard them telling the rest of the group that it would be important to discuss the definition of pressure and to show how pressure is measured. But, though the students appeared to grasp the subject matter, the group wasn't making progress toward completing the task.

I began to analyze the dynamics of this particular foursome. I had selected heterogeneous groups in terms of sex, age, academic performance, social status and ethnicity. In assigning them, I had also considered students' various learning styles. So why was this group not working?

Sarah raised her hand, indicating that my presence was needed at her group. As I approached, I reminded myself, "Answer every question with a question." But before she could ask her question, Roger blurted out, "You can't expect us to understand this stuff. That's why they hired *you* to be the teacher."

I knew I needed to address Roger's frustration and try to get the group back on task. With the whole class waiting to see how I would respond, I quietly said, "Roger, I appreciate the fact that you are frustrated and I know you want to be successful on this assignment. I am very concerned that your group has been unable to complete this task. Can you identify what the problem seems to be?"

No one responded. There was complete silence. I had anticipated that everyone would blame everyone else and was amazed by the silence. "Please explore the question and I'll be back in a few minutes," I told them as I walked away. But a few minutes later the bell rang and they all left without a word.

The group was to make its presentation the next day, and as far as I could tell, they had no plan. What would happen the next day? This group was convinced that I was responsible for their learning and that I would rescue them, that I wouldn't allow them to fail.

So I was faced with the dilemma of my professional life: should I let them fail? Teaching is my chosen profession; I am an excellent teacher and I believe my function as a teacher is to help students become independent, critically thinking, lifelong learners. Yet these students didn't appear interested in learning; they simply wanted to be spoonfed. Give them a list of facts or pieces of information and they would retain it long enough to regurgitate it back to me. How could I convince them that the process of learning and being responsible for one's own learning is more important than some irrelevant collection of facts?

I was up most of the night wondering what I would do when this group failed in front of the class. I wanted to believe that these students had planned to get together on their own time and that they would pull it off the next day. But I wasn't convinced.

The next day, the first group introduced the effects of temperature on a gas and performed a demonstration to prove that when gas molecules are heated they speed up, increase the frequency of collisions and create an increase in pressure. As they attached a balloon over the top of a Pyrex flask that was being heated on a hot plate, the whole class held its breath waiting to see if the demo would work. At last, the temperature change was sufficient to increase the pressure in the flask and the balloon inflated. Then the group separated the class into teams and played a "what if" game. They concluded their presentation by answering questions and passing out a homework assignment. The whole class clapped as group members took their seats.

After thanking the first group, I asked the class to prepare for the next presentation, which was to be that of my most reluctant group.

Sarah and Roger slowly walked to the front of the class while the other group members refused to even acknowledge that they were in the group. When I asked them to go to the front of the class they said, "We're not in a group!" Reluctantly, they walked to the front of the class. Sarah started by stating, "Our

group was unable to complete the task. We couldn't agree on what was important. Our group didn't work together very well." The students sat with their mouths open as Roger said, "I guess Mrs. Stevens will have to teach this if anybody is going to learn anything about the effect of pressure on gas molecules." All of the students quietly sat in their seats and waited for me to take over and teach the class this group's topic.

It suddenly occurred to me that from the very beginning, this foursome had never intended to give the presentation. I couldn't believe how clever they had been. They just went through the motions of wanting to be successful so I would rescue them when they used the "non-functioning group" as their excuse. They were very skilled at manipulating other people to take responsibility for their learning. I wondered what lessons were really being learned in our present school system.

As these thoughts went speeding through my mind, the whole class waited for my response. What was I going to do now? I stood in front of the class and said, "It is very disappointing that the group was unable to teach their lesson today. After we wrap up all the other presentations, I would like the class to discuss what can be done when a group is unable to work together. It will be necessary for everyone to learn the material that would have been covered by this group." Then I asked for the next presentation.

I couldn't believe I hadn't stepped in to teach the lesson. As the next group got started, I kept thinking that for the first time in my career I had actually let a group fail. Had they counted on the fact that I always rescued them? Was I doing the right thing? Was I being unfair to the rest of the class?

I'm still not sure of the answers to those questions. For the last four months, I have been observing how these four individuals react when working in different groups to complete cooperative learning activities. In all instances, the groups in which they are involved perform at a lower level and have difficulties in working cooperatively. By contrast, when lessons are taught in a traditional method, such as lecture or class discussions, these same four students are completely motivated and involved. Why do these students reject the opportunity to assume responsibility for their learning? What will it take to reach them?

PEER EVALUATION FORM
Chemistry – Gas Law Presentations

TITLE OF PRESENTATION: _____

NAMES OF GROUP MEMBERS: _____

CONTENT NOTES:

QUESTIONS OR COMMENTS:

EVALUATION: Each category should be evaluated on a scale of 1 to 5, where 1 is poor and 5 is excellent. Please feel free to write in any additional comments.

- 1. Apparent knowledge of the topic _____
- 2. Appropriate use of a demo, lab, skit, or game _____
- 3. Use of visual props or musical highlights _____
- 4. Ability of the group to answer questions _____
- 5. Participation of the entire group _____

TOTAL _____

Evaluator's Signature _____

Date _____



Case 5

EXPLORING ALTERNATIVE ASSESSMENT

It's hard to believe a ten-letter word can cause such anguish to educators in general and account for numerous hours of torment for me. EVALUATION of groupwork activities raises some real tough questions with many unresolved answers.

I teach chemistry at a public high school that has some of the richest and poorest students in the San Francisco Bay Area. Approximately 50 ethnic groups are represented by our students, and my chemistry classes are an excellent reflection of the school's ethnic and academic diversity.

During my seven years as a teacher, I have tried a number of teaching techniques. In the last two years, I added Complex Instruction¹ as a major tool in my teaching repertoire. During the first month of school, I taught a unit on the concept of density — typically a difficult idea for students to understand. I created the four-day unit, called the Ups and Downs of Things, using the curriculum design principles of Complex Instruction. My goal was to provide an opportunity for students to discover that all substances have a specific density and that density is the ratio of mass to volume for any substance. On the first day, each group performed a different activity that concentrated on the central question, "What is density?" Only I knew the question, however. I had intentionally avoided using the word density when I introduced the activities. I wanted my students to perform various activities and then hypothesize the central question or idea.

One group had a large bucket and 20 different items. The members hypothesized and stated their rationale for which objects would float and which would sink. Then the group designed and conducted an experiment to test its hypothesis. Finally, the students created a table to illustrate their results.

The second group experimented with four unknown solutions that contained different food coloring. Using a potato and a drinking straw, the members determined how the four liquids could be separated into distinctly different layers. The group tested the liquids and completed a visual display for the class.

A third group read a story about two women hiking in the woods. The women stumble upon a small stream and decide to leave their Coke and Diet Coke cans in the water to keep them cool. When they return, one of the cans is missing. The group had to hypothesize which can was missing and then justify the hypothesis. I provided a large bucket of water and cans of Coke and Diet Coke to assist the group in its exploration. Finally, the group wrote a letter to the two women explaining what had happened.

¹ Complex Instruction, developed at Stanford University, is a groupwork model that emphasizes the development of higher-order thinking skills in heterogeneous classrooms. It addresses issues of status that arise in small groups.

Another group measured the mass and volume of a number of metal samples. The students used a scale to weigh the samples and used a water displacement method to calculate the volume. After collecting the data, the members plotted the information on a graph and analyzed the relationship between mass and volume.

At the end of the period, each student completed an individual report (see individual reports of Activities #1-4) responding to a few questions about his or her specific task. The questions were designed to determine if the student understood the activity and could apply the information to a real life situation.

The second day, we held a "scientific convention" where each group presented its results. The class asked questions about the proposed hypothesis, the experiments, the results presented and the assumptions made by the investigators. I was exhilarated. My students were actually *doing* science. The class generated a number of questions for each of the groups and discussed how the group might explore the questions. The variety of questions impressed me. One student asked, for instance, "Why did the Diet Coke have a different mass than the regular Coke? The label indicates that they have the same volume and the cans appear to be the same." The answers were equally impressive. "Maybe the Diet Coke has more gas in it than the regular Coke!" responded one student. "I always burp more when I drink Diet Coke." A third student volunteered her opinion, "I think sugar has a larger mass than Nutrasweet. I want the next group to compare the mass of sugar and Nutrasweet when they do the activity. I hope my group gets to do this tomorrow!"

Were these the same students who a few days before had refused to use the term "mass"? What was happening to them? They really wanted to figure out the difference between the Coke and Diet Coke. I would never have imagined that this question would be so engaging for them.

On the third day, the groups rotated and performed one of the other activities with the modified questions that had been generated by the class. The fourth day we continued the "scientific convention" to present the conclusions to the newly generated questions.

The activities had been a complete success, and the students were feeling good about how things were going. A few students shared their thoughts in their journal entries. "We should do all of our labs like this," and "These activities really helped me understand what's going on in the class." I was thrilled at the responses but I was concerned about the amount of time we had spent on the topic of density. Whereas I would normally spend only one 50-minute period on the topic, I had already spent four class periods. The time commitments for using groupwork had definitely put a strain on my yearly time table, but I was really thrilled that the students were thinking and solving problems in a more meaningful way. Concerned about the curriculum still to be covered, I decided to give a short quiz on density and then continue with the rest of the chapter.

The quiz was traditional in format (see Mini Quiz 1). It required students to calculate the density of a substance given its mass and volume by rearranging an equation and solving for the unknown variable. It also required them to interpret a data table. It was the same quiz I had always given for density.

I was astonished when I graded the quizzes. These students had not done any better on the test than had students from previous years. I was crushed. I really thought that the students had grasped the concept of density and would be able to apply it. I decided to discuss my disappointment with the students and solicit their input.

The next day I asked, "What did you find difficult about the quiz on density?" The class was unusually quiet. Finally, Marta raised her hand and said, "Our group had a great time doing the activities, and I believe that we had a good understanding of the idea. But the test didn't give us an opportunity to show what we had learned." Everyone was quick to agree with Marta's perspective.

I was still digesting Marta's comments when Carlos raised his hand. This student had never asked a question or raised his hand, so I called upon him immediately. In a very soft voice, Carlos explained: "The quiz was all math. I'm no good in math. I didn't think any of the questions were about the activities we did in class." I thanked the students for their honest responses and asked them to write test questions that they thought would have been more closely related to the activities.

I sat down at my desk, still amazed that the students had not made the connection between the activities and the key ideas of the units. They had participated in the activities and were very attentive when the important issues had come out in the "scientific convention." Two of the groups had actually demonstrated how to derive density from mass and volume data. Yet, despite their engagement and attentiveness, they were missing the key concepts. Was there something I should have done to help make the connections more explicit?

At the end of the period, the students turned in their proposed quizzes, which were quite surprising. All of the suggested questions were completely open-ended, and they represented a number of alternatives to evaluate student knowledge. One student suggested a creative story to explain the concept of density. Another would require that a song be written and sung to convey the information about density. A third idea was to take a real life problem and solve it using the concept of density.

In general, the students selected non-traditional, open-ended methods for evaluation. I had never really thought about traditional versus alternative evaluation before. I had tried to anticipate potential problems when the students actually performed the activities, but had not given much thought to how to evaluate. I had planned to use the individual reports, the group presentation grades, and the quiz grade to assess the effectiveness of the lessons.

Instead, I now decided to develop a new quiz that incorporated the students' suggested questions (see Mini Quiz 2). The students were asked to select one of the three possible questions, to complete some calculations and to demonstrate their knowledge of density. Although the second set of quizzes was much more time consuming to grade, the results were remarkably better than the first. The grades were higher and the tests indicated that the students were able to calculate density and had a concrete understanding of a relatively abstract concept.

Why did the students do better on the second test? I speculated that the scores were higher because the students were able to express their understanding of the concept in the method most comfortable to them. To test my hypothesis, I asked the students to share their thoughts about the quiz in their daily journal entry. Megan wrote, "I really felt like you wanted to know my ideas instead of asking me to repeat what was taught." Juan commented, "It was really cool to be able to use what I'm good at (writing) to do a science test." Greg felt that "the quiz was okay but I prefer the first quiz 'cause it was easier for me."

Why were the students able to perform the math calculations on the second test? I never went over the first test or showed them how to do the density calculations. Was it because they had seen them on the first test and they felt more comfortable the second time around? Had they used their textbook as a reference to learn how to set up the problems? Was it a combination of things? I decided to include the

second quiz grade with the other grades. I realized that I needed to carefully plan how I would evaluate groupwork lessons in the future.

A few days later, I was explaining what had happened to another teacher, who expressed shock that I had allowed the students to take an alternative test. I said, "I know it takes a lot more time and creativity, but I think that the students really appreciated being a part of the decision making process and having a say in how they would be evaluated. I have really seen a change in their attitude about the class. They seem more confident and they appear to be making a greater effort in the course work." The other teacher looked at me and said, "You are doing a real disservice to your students. They need to be able to take standardized tests. If they want to go to college they have to be able to function in a traditional mode. No one is going to let them create a story or write a song. Think about their future!" Before I even had a chance to respond, the other teacher walked out.

I wanted to scream but there was no one to hear me. My first reaction was to discredit my colleague. Who was this teacher anyway? She didn't use groupwork as a part of her teaching, so how would she know about alternative evaluation?

But after I calmed down, her words began to penetrate. Although we had totally different philosophies about teaching and learning, I couldn't help but think about our conversation. Was I doing the students a disservice? Would alternative evaluation methods somehow hamper my students' ability to be successful on standardized exams? Is it important to match evaluation methods with teaching strategies?

THE UPS AND DOWNS OF THINGS !!

Key Idea: In what ways do ups & downs of things affect our lives?

Activity #2 Creating a Rainbow?

Individual Report #1

Predict what you think will happen to the layers if the straw is turned upside down (with a finger covering the open end of the straw).

Have a group member invert the straw. What was the result? Why do you think this happened?

THE UPS AND DOWNS OF THINGS !!

Key Idea: In what ways do ups & downs of things affect our lives?

Activity #3 Don't judge a Coke can by its label!

Individual Report #1

Wilma and Margo are still puzzled as to what happened to that can of Coke. Write a letter to them explaining what happened and give them some practical advice when they go backpacking again.

THE UPS AND DOWNS OF THINGS !!

Key Idea: In what ways do ups & downs of things affect our lives?

Activity #4 Is it or is it not, pure gold?

Individual Report #1

Sometimes industry has the need for a material which is a result of 2 or more elements blended to make an alloy.

What do you hypothesize will be the density of an alloy? Will it be closer to the higher density, the lower density, between, or greater than the higher, or lower than the lowest density?

Test your hypothesis.

Chemistry
Density Mini Quiz 1

Name _____
Date _____ Period _____

Complete the table using the density equation that was discussed during our scientific convention. You are given two of the variables and asked to solve for the third variable. Please show all of your work in the space provided and include units with your final answers.

Substance	Mass (g)	Volume (ml)	Density (g/ml)
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1. NaCl SHOW WORK:	74.3	27	_____
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2. HCl SHOW WORK:	_____	96	.36
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3. MgBr ₂ SHOW WORK:	72.8	_____	.64
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4. What is the volume, in cubic centimeters, of a sample of cough syrup if it has a mass of 50.0 grams and a density of 0.950 g/cm³?

5. What is the density of a shiny bar of metal weighing 57.3 grams and having a volume of 4.7 cm³?

Chemistry
Density Mini Quiz 2

Name _____
Date _____ Period _____

Part 1: Use the attached pieces of binder paper to answer this section of the quiz. Select one of the following three alternatives:

1. Write a creative story to explain the concept of density. Imagine you are writing a story for a middle school student.
2. Compose a song that will convey the meaning of density and will explain how density is used in life.
3. Select a real life problem and use your knowledge of density to solve the problem. Explain how you would solve the problem.

Part 2: Please complete all of the problems below. Be sure to show all of your work and include units throughout the problem.

1. How large a container do you need to store 40 grams of a liquid that has a density of 2.0 grams per liter?
2. A copper penny has a mass of 3.1 grams and a volume of 0.35 cm³. What is the density of copper?
3. A cube is 2 cm on each side. The density of the cube is 10.0 g/cm³. What is its mass?

CHAPTER II:
FACILITATING GROUPWORK INTERACTIONS

A. Individuals and Groups

Case 6

STRUGGLES WITH THE DYNAMICS OF GROUPING

Sam and his family immigrated to the United States from Hong Kong when he was five. His first grade teacher's recollections of Sam's year in her class painted a grim picture of the difficulties he faced: he spoke limited English, his scores on the district language assessment measures indicated that his comprehension of spoken English was restricted, he was a non-reader, he struggled with most classroom activities, he cried often, and he suffered almost daily playground injuries.

I met Sam last year when he was seven and a member of my 2nd grade class. Knowing the difficulty he'd experienced in 1st grade, I was eager to give him an opportunity to succeed. I was hopeful that my class, with its focus on groupwork, would work its "cooperative magic" and that his team would give him the support he needed to be successful.

As I think back on Sam's experience working with several different groups in my classroom, I realize that his story epitomizes what I consider one of the most provocative questions about groupwork — how to organize teams. It's often taken for granted that teachers intuitively know how to group children. Yet in reality, many of us struggle with the complex dynamics of grouping. When Sam entered my classroom, I assumed that groupwork would be a valuable tool for both helping him learn English and becoming successful in his academic and social endeavors. As the year progressed, however, I found that some of my expectations were realistic, while others could be called into question.

After being a teacher/advocate of hearing impaired children for 14 years, I decided to return to the regular classroom last year and accepted a second grade position. As I contemplated my new position, I became preoccupied with the concept of grouping. I had learned to appreciate the value of groupwork while working with the 14 students in my special education classroom. It had enabled me to work with individual students while others were productively occupied. It also facilitated language acquisition by encouraging frequent and active dialogue among group members. In traditional classrooms, it appears that active communication occurs infrequently and only between the teacher and one student at a time. By contrast, groupwork allows students to have sustained dialogues with one another throughout the course of a group project.

I was also influenced by colleagues who were participating in the Brown/Campione "Fostering a Community of Learners" project.¹ They reported that working together to complete a group task seemed to engender cooperation among group members and allowed each one to contribute and be appreciated

¹ The "Fostering a Community of Learners" project is an instructional program designed to promote both deep disciplinary understanding and the critical forms of higher literacy — reading, writing and argumentation. It is rooted in small group structures such as research groups, jigsaw, and exhibitions.

for his or her particular skills and strengths. As I returned to the regular classroom, I was eager for my students and me to participate in the Brown/Campione project as well.

When the year began, I had high expectations for groupwork — it would be an effective management tool, promote student self-esteem, and encourage collaboration. Most of all, I saw it as a vital tool to facilitate dialogue among peers, which in turn would help all students — especially second language learners like Sam — increase their verbal, written, expressive and receptive language skills. With that in mind, my task was to effectively group 29 second graders. My second grade class consisted of 12 girls and 17 boys: 74 percent African-American, 13 percent Caucasian, and 13 percent of Asian descent. While a few of the children were from middle-class families, most were from low-income or welfare families.

The big question was *how* to group them. I wanted groups that were heterogeneous, non-threatening, non-competitive, equitable, stimulating, motivating, and most of all, cooperative. I needed to take into special account the children who were described as “at risk” — children who were either learning English as a second language or identified as non-readers.

I realized that just creating groups didn’t guarantee cooperative behavior, so we began talking about what it meant to work together and ways to talk to one another to ensure equal participation, asking each other, “What are you good at? What do you like to do?” We also discussed ways of choosing a group leader and how the leader would rotate to ensure that each would have a turn. We discussed the process of working together every day, soliciting suggestions and new ideas. I hoped that the process would be ongoing throughout the year.

I decided the students would work in groups of four (with the last group having five). The original groups would remain intact for four weeks, after which we would form new ones every four to six weeks. In this fashion, by the end of the year, each child would have worked with every other child in the class at least once, thus discovering that everyone has something unique to contribute.

To prepare for my task, I did some research about various theories of grouping, talked with other teachers who used groupwork and interviewed the first grade teacher about those of my students she had taught. I decided to let the children choose their own partners for the first round of grouping. By observing the academic and social interactions within each initial group, I intended to acquaint myself with the specific needs of the children, thereby becoming prepared to fashion subsequent groups myself.

As I watched the first groups form, I noticed that Sam chose to be in a group with three other Asian boys. Normally I would not have allowed a group that was so homogeneous, but I felt that because the other boys spoke Sam’s language and were more advanced than he in English, they could assist him in acquiring English proficiency. I hoped Sam would receive the initial help and support from his team that he so desperately needed. I was anxious for Sam to be recognized for any strengths that he may exhibit and to feel successful about himself. Though I had the skills as a special educator to help Sam, I realized that I was relying heavily on his group.

But it was soon apparent that the group had no “magic.” Instead of being mutually supportive, the boys belittled one another. The common refrain was, “You don’t know how to do *anything*.” Instead of building on each other’s strengths, there was only the tearing down of one another’s self image. Instead of cooperation, there was alienation.

These problems became apparent during their first cooperative task, which was to create a new invention. I told the class that each group could create any invention as long as it was useful. They had to write a description of what it looked like and how it would be used and draw a picture of it. The first step was for each group to decide what to invent. As Sam's group discussed the possibilities, Sam suggested that it would be interesting to have an umbrella that opened on command. Initially the other members seemed interested in the idea, but later they changed the command umbrella to a flying umbrella. Sam's suggestion fell by the wayside and he was left having little or no involvement in the group's decision.

After observing this, I wondered if I should intervene. Since one of the purposes of team work is to empower children to resolve their conflicts and make their own decisions, I hesitated. But I noticed that Sam was distressed and apparently unable to communicate his feelings, so I asked, "Did everyone have an opportunity to share their ideas?" They all nodded, but didn't say anything. Then I asked, "Is everyone satisfied with what your invention is going to do and what it's going to look like?" They nodded, but didn't say anything. I didn't pursue the situation; I was concerned that I would violate their trust and process.

Later, when I asked Sam about it, he said, "They changed everything I said... At first they say, 'yea, yea,' then they change and say, 'no, no.' They no like me."

After this conversation, I decided I needed to pay extra attention to the group's interaction. I began noticing that most often when Sam tried to explain something, the others would have a difficult time understanding him. Over and over again Sam would repeat, "No, no, I mean...", but the others invariably would lose patience and simply leave him out of the conversation. It appeared that Sam's inability to be understood lowered his status in the group. Over time, a "pecking order" emerged and Sam was at the bottom.

I suspected that he would not express his frustration or feeling of inferiority for fear of retaliation from members in his group. Initially, I tried to change the pecking order by making a conscious effort to praise each of them in the same way so as to bring equitable attention to all of them, while simultaneously hoping to call attention to Sam's contribution. But no amount of positive reinforcement seemed to make a difference. It was apparent that I needed to find a common bond other than their ethnicity to help the boys redirect their competitiveness.

I didn't have to look too far. Evidence of their artistic talents was readily apparent within a few weeks as they undertook projects such as research, story writing and illustrating, map making and cooperative problem solving. As I observed them I soon learned that each had a knack for a particular skill and they would "trade them." One boy had an eye for color, another was skillful with proportion, the third was good with details, and Sam was able to lay out the whole picture. The boys worked well together, "trading" their skills on projects that called for such talents. In this context, Sam's art work became his method of communication, the "pecking order" disappeared and Sam smiled often and laughed a lot.

The question became how to help the boys expand this "once in awhile" cooperative mode into a more consistent behavior. Once again, I consulted my colleagues, only to be told to disband the group and start over again. But I didn't want the group to think that they had failed. Nor did I want them to think that if something wasn't going well someone would automatically rescue them. I wrestled with my mixed feelings for a short time and decided to give the boys a choice: they could continue together for the remaining time or they could separate and work individually.

They chose to stay together. Three of the boys seemed to thrive on their relationship within the group, but Sam continued to be an odd man out who just kept trying every way that he could to fit in with the group.

After four weeks, it was time to change groups. Because I suspected that the students would continue to group themselves by the same gender, I told the class that the new teams would consist of both boys and girls. I asked them to write on a card the names of two boys and two girls they wanted to work with. I said I would create the groups with these preferences in mind, promising that they would be in a group with at least one of their choices. Sam chose to be in a group with two very outspoken girls and a boy who was preoccupied with being entertaining. None of these children spoke Cantonese.

Unlike the other groups, this foursome quickly managed to divide itself into two pairs — the two girls in one pair and the two boys in the other. The two subgroups cooperated by subcontracting with each other just like a builder; they assigned roles to each other. Sam did all the group's art work, the second boy was in charge of cleanup, and the girls handled all the academic work. Everyone seemed comfortable with the assigned roles. There was plenty of constructive dialogue, conflict was minimal, and projects were completed cooperatively, though not collaboratively.

This group proved especially supportive of Sam. In his previous team, Sam's fellow students made little effort to either understand what he tried to say or elicit his contributions. By contrast, this group was more willing to listen as Sam laboriously tried to explain his thinking. I attributed this in part to their personalities, and in part to the fact that as a class we'd just spent four weeks practicing our listening skills. Also, as the tasks became increasingly complex, groups stood more to gain from engaging the skills and talents of all members.

One day when the children were working on a complicated math story about Saint Ives, Sam tried to explain his very intricate drawing and solution. As he carefully discussed each detail, the other members would stop him to seek clarification, at which point he would say, "No, no, I mean..." As he began his explanation again, the others would just look and wait patiently for him to continue. And with each opportunity to talk, Sam gained confidence in his ability to communicate.

When we regrouped again, I noticed that although Sam's receptive skills² remained limited, his expressive verbal skills had increased noticeably. He was talking more intelligibly and using appropriate vocabulary. His classmates reported that he was starting to talk a lot on the playground during recess. It was happening. Sam was beginning to express himself in English.

Throughout the year, Sam continued to make great progress in his verbal expressive skills. But his reading and writing skills unfortunately remained extremely limited. Some of my colleagues felt that cooperative grouping allowed Sam to become overly dependent on the members of his group. They felt that because each member contributes to a group project according to his or her skills, Sam wasn't forced to develop the reading and writing skills he would have needed had he been working independently. But I felt that Sam clearly benefited from the opportunities to interact with appropriate linguistic role models. I also felt strongly that, as Sam continued to increase his verbal skills, his reading and writing would follow accordingly.

² Receptive skills, i.e., auditory, written, and visual comprehension.

By the end of the year, however, Sam's behavior changed in a way I had not anticipated. His language skills increased to such an extent that he tried to assume leadership in his group, and for a while, his non-stop talking enabled him to exude confidence. Then things changed again. He began to order people around, and it appeared as if he lost all interest in working cooperatively. Two members responded by ignoring him and the third argued with him. My own attempts to intervene — to serve as a mediator and thereby model a possible solution — met with resentment from the whole group.

Now, as I look back on last year, I realize that there is no "cooperative magic," rather, creating groups that are cooperative and collaborative is a complex, multifaceted endeavor. Sam's involvement in group activities certainly had its ups and downs. On the one hand, I am pleased with Sam's growth. When he began the year, he was in a group where he felt rejected and insecure, and that his contributions had little value. In the second group, he found teammates who recognized his skills and were willing to listen and attend to his needs. Sam's confidence grew, and, with it, his ability to communicate soared. His progress improved his status in subsequent groups. But by the end of the year, Sam became domineering and overbearing and tried to usurp control.

I wonder if the group process created a monster or if Sam's attempt to wield power might have been a natural step in the process of learning how to cooperate within a group setting. How much might his desire to dominate his classmates be related to his new and improved communication skills? Had he been so intent on acquiring language that he hadn't tuned into the other important factors that I consider crucial — equity and collaboration in groupwork?

I also wonder what the teacher's role is when one member of a group tries to gain control. Is it possible that what I interpret to be uncooperative behavior isn't necessarily interpreted the same way by other group members? Could this account for why Sam's last group appeared to resent my attempt to intervene in their group process?

Case 7

PUZZLES OF A WELL-CRAFTED GROUP

Some groups work and some don't; why I even bother to "craft" the perfect group still mystifies me.

This case is about the year's first big group assignment and more particularly, about a group I assembled around Daryl, one of the most interesting students I've ever taught. When I crafted the groups, I worked hard to get it just right so each group was well qualified to cooperate, write, and generate a creative response to a difficult assignment. As each group completed the five-day culminating poetry assignment, I wanted increased learning, cooperation, tolerance, diverse skills, and attitudes. What I saw in Daryl's group still puzzles me.

I am a sixth-year English teacher frustrated by my department's tracking of students. Currently I teach at least one section of each track: general, college preparatory, and honors. This story takes place in my sophomore honors English class where most of the students are "good" at school, come from "good" homes, and have parents who graduated from college. What happens when you get a kid who doesn't come from a "good" home, whose parents haven't graduated from college?

Daryl transferred to our school from the "weak" working class high school in the district. He arrived on the third day of school with a recommendation and an "A" from his freshman college prep teacher; he also came speaking slang, writing run-ons, and willing to be brutally honest in his oral and written work.

Even though Daryl hadn't prepared for this class by reading the four required summer reading books, I took him in. In his written application for the class, he indicated a willingness to do whatever work was necessary. He also said he liked reading and needed work on his writing. I wondered if he would feel alienated among a group of students who come from middle- and upper middle-class families.

In many ways, Daryl stuck out. He wore a cap as he slyly munched on sandwiches and sipped Cokes in the back of the class where I've never allowed eating for fear of rodents. He said, "pissed off," when asked how a particular character acted. His classmates didn't know how to react. Should they look at me? Daryl? Or share a snickering glance with a friend? *They* don't speak slang in class. Daryl also managed to read within the first week two books from the required summer reading list, *1984* and *Cry the Beloved Country*.

One of his first essays stunned me. Daryl argued that Pertruchio from *Taming of the Shrew* was right about his outlook on women. He compared his labor-intensive summer work to his sister's. "I feel white collars are wienne [sic] jobs and wives can bitch all they want (or husbands). Second, the work load of my sister was minimal. If you were to take a household of four or more kids I can see sympathy for wives (or husbands) who take care of them. Nuff said!"

When I have a student who sticks out — for whatever reason — it is always difficult deciding which group to put him in. Something tells me that if I formed groups at random, they would work as

constructively as groups I so carefully compose. Assembling a group around Daryl took some careful thought. I feared that with the wrong students, Daryl would have a horrible experience in this "goodie-goodie" honors class. Conversely, I hoped that with the right students, Daryl would catch some of their enthusiasm for school. At the same time, I thought that any one of my students could benefit from working with Daryl, if not for the raw way he tackled things, than for the experience of working with someone different than the kids they had always worked with on this perpetual honors track.

With Daryl I placed Kara, one of my star students whose stellar beginning-of-the-year writing seemed to bode well for good groupwork. I searched the roll book for nice kids, whom I figured would be tolerant. I nabbed Josh, who seemed especially mature and nice. I liked how he had complimented my independent reading list and asked for more recommendations. I also added Elizabeth, a quirky young woman who had sworn off pants and who probably would have been just as happy wearing her long skirts at the turn of the century.

This group worked together off and on for five to six weeks, primarily in writing response groups. By the time we reached the culminating project for the poetry unit, I had hoped that the groups would be well oiled and ready to work on a more extended task.

For this unit, the students studied poetry terminology, practiced different ways of reading and reacting to poems, wrote short poems, and learned how to write about poetry. The unit culminated with a five-day group project, for which, in retrospect, I probably set up too many objectives.

I wanted the students to synthesize what they had learned about poetry, writing about poetry, and appreciating poetry. *And* I wanted them to teach their classmates. The assignment had many tasks, each drawing upon their abilities to apply what they had learned in the previous weeks of poetry and writing instruction.

First, each group had to reread a quarter of our class poetry anthology (10 or so pages), comprised of poems the students had brought from home. Each group member then nominated one poem that would be good for the group to write about, "unpack" and "present" to class. The group then spent a day discussing the choices and reaching consensus. In their presentations to the class, I wanted the group members to get their classmates to understand and appreciate the poem. I asked that, in addition to doing a presentation, the groups submit a "poetry packet," to include paragraphs of analysis that the students wrote individually (with the help of peer response), an artistic rendering of the poem, and notes explaining the process by which the group planned their group poetry presentation.

For the first day, I randomly selected facilitators, timers, and note-takers, reminding students to rotate these jobs each day. I pointed out that other jobs would come up that were more specifically related to the tasks: idea editors, copy editors, artists, and presenters.

On the day Daryl, Kara, Elizabeth, and Josh tried to reach a consensus about which poem to pursue, I watched, increasingly disappointed.

Were they trying to reach a consensus? Did they know how? Daryl and Elizabeth sat facing Kara and Josh. Sagging in his chair, Daryl gazed away, pointing his outstretched legs towards another group. Elizabeth, disgusted, looked down as she paged through the anthology. Across from them Josh and Kara talked animatedly.

When I stopped at their group, Kara told me the group had chosen Raymond Carver's poem "Gravy." Elizabeth complained that no one was listening to her and that she hated "the dumb poem they both want." I immediately worried that the *both* Elizabeth referred to meant that Kara and Josh were the decision makers.

I've always got a million questions about teaching. Now I wondered if I should get involved or let them work it out. In this situation, I decided to step in. Kara and Josh volunteered that "Gravy" would work well. Apparently none of the other three wanted to work with the short, but confusing Emily Dickinson poem Elizabeth had selected. And Daryl proclaimed, "I *really* don't care which poem *they* want." Without offering advice, I moved on. They ended up selecting "Gravy."

The next couple of days, I observed the group diligently working on the written assignment. Daryl repeatedly came to me with his own paragraph, only to be sent back to the group. I could just see him yawning as he handed his writing over to Elizabeth or Kara: "Go on, you look at it...*he* won't."

Daryl would often search me out to say, "We're done. Now what should we do?"

"Ask your group," I'd say.

"They told me to ask you."

"Tell them that as a group you need to figure out and practice your presentation." Such non-communicative conferences took place while other groups gained momentum and enthusiasm as they finished their written work and planned their presentations.

Finally the day came for their presentation of "Gravy." I hated watching it. Kara and Josh read alternating stanzas of the poem in a self-important way while Elizabeth, wearing a checkered apron over her long skirt, mixed up some real gravy. Daryl stood aside with nothing to do. Then, in an unrehearsed moment that distracted from the presentation, he reached for the gravy, taking a few licks. Other than that, the initial selectors of the poem, Kara and Josh, had taken over the presentation. The other two never really found their way into the project.

In my response to the presentation, I wrote separate comments for each individual and for the group: "Kara and Josh dominate too much. I'd like to hear Elizabeth and Daryl speak more." I reminded Daryl to "avoid eating during presentation; you take away attention from others." I warned Kara to be "careful of giggling — maintain composure." I made no positive comments.

By contrast, I included positive comments on every other group's grade sheet. I was so disappointed in this group that I couldn't be positive. In the preceding days I could have coached them into being more collaborative. But not knowing how, I had just glared at them.

After the project, I asked each student to respond independently to four questions: a) What jobs did you take on during the course of this project? b) How would you rate your own use of time for this project? Finish the following statements and support them: c) I think, as a member of my group, I helped by ____, d) I (dis)liked how my group ____.

Daryl reported that his time had been "wasted because everyone says the same thing over and hasn't concentrated on the presentation [which] is the true group 'thang.'" Daryl also said he disliked how his

group worked “because everyone discussed their own personal problems and many times me and Josh were out of the picture.”

Elizabeth noted that she had taken “rather skimpy notes for the group” and had done “many drafts of [her] paragraph, highlighting, typing, and defining.” She’d “drawn the picture, redone it, and stressed out.” She said she resented the fact the two boys in the group hadn’t done their share.

Josh, as it turned out, had had an unsettling retreat experience the weekend prior to this poetry project. He confessed that he had used class time to work out personal problems rather than the assignment. “I think my use of class time has been not so great because I have not been really with it for the past several days,” he wrote. “I know that if I had been in a little better mental state, I would have devoted more time and energy into these class time activities.” The irony is that I had put Josh in the group precisely because of his good energy in class.

Kara, the group’s academic achiever, who took control so she wouldn’t lose control, said, “I liked how *most* of my group worked because we got our goals accomplished and we actively helped each other. Unfortunately, Daryl didn’t seem interested in working, which hurt our progress although we tried to include him.”

Each of the students recognized that they hadn’t been completely successful. Elizabeth blamed the young men in the group; Kara blamed Daryl; Daryl blamed the group; Josh blamed himself.

Despite the less-than-successful group process and presentation, the quality of the individually written paragraphs far surpassed every other groups’. Each student clearly understood various points about “Gravy.” The paragraphs were notable for their clarity, use of appropriate evidence, and commentary. They were largely free of mechanical errors, too. To me, their high-quality written work indicated that the group had successfully given meaningful response for revisions.

I’m not sure how I could have altered the group’s experience. Maybe my precepts for group construction were wrong. I had always thought that a teacher should place one highly motivated anchor in each group. In this case though, I made the assumption — wrongly — that an academic star is also talented at interpersonal group skills. I’ve always tried to create groups that have both genders represented. Perhaps in this case, Daryl might have benefited more from an all-boy group.

I had wanted the group presentations to have some magical component, and most did. But it was an optimistic leap on my part to think that, just because I had had other students succeed in groups, some magic would occur every time in every group.

I still wonder how this group could fail so miserably in one aspect of the assignment, yet apparently succeed on another. Maybe its success on the written task could be attributed to the five weeks of paragraph writing and revision we had completed before this project. Or maybe the group *did* know how to respond and revise, but those skills don’t necessarily transfer to the type of consensus building necessary to prepare the poetry presentation.

As for Daryl — just as suddenly as he had ridden into my class on the third day of school, he rode out again during the winter holiday, heading for Nebraska with his Dad. Damn it, I wasn’t ready for him to just pick up and go.

Case 8

MY STRUGGLE WITH SHARON

Boldly striding through the narrow doorway, her wild, mouse brown curls trailing, Sharon straddles her desk, bellowing her arrival. Raiders jacket draped down to her knees, she loudly cracks her gum, signaling that class can now begin — Sharon Dims is ready, pen in hand and mouth agape.

Groupwork with Sharon is not easy for her or the others in her group. She is the type of student who wants to work only with her “best” friend, whether the two are in the same class or not. Because of this Sharon often cuts class, wandering around the school searching for Angie, or she arrives late because she and Angie “had to talk.” This usually means she has missed the directions and is unsure of the assignment. So her group, now responsible for telling Sharon what the assignment is, has less time to work on the tasks.

I teach 8th-grade Language Arts Core in a Northern California middle school. Our student population is approximately 60 percent Hispanic, 25 percent Caucasian and 10 percent African American. The remaining 5 percent includes Pacific Islander, Asian, and Middle Eastern students. Except for the GATE class and Sheltered English instruction classes, our students are grouped heterogeneously. In my morning class, which is Sharon’s, I have 24 students, half of whom are Resource Special Education Pupils (RSP). Due to the large number of students who are either RSP or LEP, I tend to carefully choose group assignments so all students will feel fairly successful.

This year my classroom theme was friendship and responsibility, and I decided I would like the students to learn these concepts through “doing.” Come December with the holiday season, I developed an assignment in which students worked cooperatively to create Christmas presents for children in a local hospital. The assignment, which was to be done in groups of four, was to write and illustrate an original children’s story that contained a moral, a main character (either an animal or person), and an adventure to illustrate the moral. They were to illustrate the story using only four colors — not counting black or white. The model for our stories were Gerald McDermot’s books, *Anasi the Spider*, *Zomo the Rabbit*, *Arrow to the Sun*, *Papagayo the Parrot* and *The Stone Cutter*. The groups were given three days of class time to work on their original stories. I also encouraged the students to exchange telephone numbers so they could work outside of class. At the end of the three days, the stories were to be presented to the class and then given to the children in the hospital. In the past, it seemed easier for students to write individually, seeking peer response to their drafts from one other student. It occurred to me that having four students create one story with illustrations might be difficult to manage, especially with this class. My past experience with their group dynamics told me these students were hard to manage because of their short attention spans and their difficulty getting and staying on task.

The students in this class had worked in groups on numerous projects, but never on one that was so encompassing. I decided we would begin work on a Thursday, and on the preceding Monday I carefully placed the students in groups according to ability (artistic, writing), skills (literary and comprehension),

and personality (bossy, congenial). I wanted to give them four days to adjust to each other. Because this task required both artistic and literary abilities and skills, I tried to place at least one student who had shown artistic interest in each group, as well as a student who enjoyed writing and being creative.

When Thursday arrived, 12 of the students were out of the class on a trip. Instead of postponing the assignment, I decided to try it anyway. I carefully recrafted groups from the remaining students. I tried to include in each group a high achiever, a low achiever, an average student, and a non-achiever.

Group #3 was composed of Sharon, Roy, Alicia, and Charles. Alicia, a high achiever, always tries her hardest to please her parents, peers, and teachers, both academically and socially. She is always the leader in a group, making sure the task is done on time and completed in a beautiful, well-planned manner. Charles is the low achiever. He is undersized for his age, sickly, and generally immature. But he is quite agreeable and works well in a group. He will follow directions and does make an effort. Roy is average. He works to complete the task and will follow the lead of those he works with. He always tries, and he usually has his work in on time.

Sharon is the non-achiever. She rarely starts assignments, let alone completes them. In addition to not doing the work, she whines and complains: "I don't understand the directions," "What do you want *me* to do?" "Tell *me* again." Sharon also tends to be bossy and does not understand directions from peers very well. I hoped by placing her in a group with three quiet people who work well she would get on task and join the others. I also assigned roles: Alicia, the facilitator; Sharon, the reporter; Roy, the recorder; and Charles, the gatherer/harmonizer. I thought Alicia would get the group going, and I knew Sharon would be pleased to be the reporter. She liked to be the center of attention, and being the reporter would guarantee that.

I gave the class directions and told the recorder to write down the instructions from the board and record all the ideas and general information about their groups as they were working. I also reminded the facilitators that their job was to facilitate, not to boss.

The students seemed to get down to business right away. Walking around the room, I stopped to ask each group what they had decided about their story's moral and characters. Glancing at Group #3, I saw trouble brewing and walked over to see what was going on. Sharon started shouting that Alicia wanted the group to do her story idea and not Sharon's. She insisted that Alicia was being bossy and said she wouldn't work on Alicia's project. "Why is Alicia always the leader?" she asked.

I tried valiantly to stick to my role by speaking only to the facilitator,¹ in this case, Alicia. When I inquired how the group was progressing, Alicia, in a soft, strong voice, told me that she had only been sticking to her role as facilitator and had been explaining the task. She was merely making suggestions about theme and the boys liked them, she said. Only Sharon hadn't. As Alicia was explaining this to me, Sharon kept interrupting to call her a liar.

¹ According to the workshop on groupwork, the roles are carefully detailed, and the teacher is to speak only to the facilitator. The students are to try to solve their problems in the group. If they decide they need specific information from the teacher, it is the role of the facilitator to ask. The teacher's role is that of an outsider, only to assist or guide when necessary.

Desperately wanting this group to get on task, I told Alicia to try harder. I suggested that maybe Sharon's ideas were terrific and could be a real asset to the story. In fact, I suggested, perhaps the group could compromise and weave each other's ideas into one story.

As I left the group, I hoped they would work out their differences and produce a finished story they would all be proud of. I was pleased that Sharon at least was interested in the project, and I hoped that Alicia, in her desire to achieve, would allow Sharon to become a positive force, not a negative one as she had been in the past. As I walked away, the group was talking loudly, but it was about the project so I decided not to interfere further.

I tried not to stare at Group #3. I heard their voices, Sharon's in particular louder than the others', but they were on task. I circulated among the groups, making sure all the students were working. Later, arriving back at Group #3, I was greeted by a whine from Sharon, who said she was absolutely, positively not working with this group, that I should just write her a referral for disobedience and defiance. I told Sharon she was not getting out of the work, that the group had to persevere. I reminded all four that theirs was a group project and all would get the same grade.² I also reminded them that part of the grade was based on their cooperation. I then walked away, not wanting to hear any comments from Sharon.

A short time later, Alicia quietly and unobtrusively came up to me and said, "I'm sorry Mrs. Forest, it's not working. I am trying my hardest, but Sharon will not cooperate. Please, can you move me to another group?" I fully understood what Alicia meant because I too had experienced Sharon's orneriness. I moved Alicia into another group.

The day of presentations arrived. Alicia and her new group had created a wonderful story and presented it perfectly. The story contained all required elements, and the illustrations were beautifully drawn. The group members talked about how they had settled their differences by using the game Roshambu, a children's game for making decisions. Alicia later told me it was easier to work with a group that wanted the story to look and sound good, and that she liked working with a group that found positive, fun solutions to problems.

When Group #3 presented, their story was the one that Alicia had suggested in the beginning. As Sharon explained, "It was a good story, but it was Alicia's when she was in the group. With her gone, it became ours!" Group #3's story contained all the required elements, but the pictures were sloppily drawn, the writing contained many spelling and grammar errors, and its overall appearance was one that showed minimal care and effort. Even so, I applauded their endeavor in completing the project and presenting their story to the class.

I'm not sure what Sharon or Alicia learned from this experience, but I am sure what it taught me about groupwork and human nature. All students, even nonachievers like Sharon, want to be successful. It was interesting that Group #3 stayed with the ideas originally presented by Alicia. Perhaps I should have encouraged Sharon instead of Alicia, or maybe I shouldn't have put them together in the beginning. In the future, I will probably not put Sharon with a strong personality like Alicia, and hope that she learns to cooperate with all students, not just the ones that follow her.

² We were taught that the goal is that all students work together and that each possesses a skill that can contribute to the final project. Some skills are not necessarily academic, some are in interaction and facilitating students working together.

For me, several questions arose from this experience: Was I wrong in encouraging Alicia to cooperate instead of focusing on Sharon and encouraging her to be more cooperative? Should I form groups by lottery and not try to make all groups equal in abilities/skills? How can I distinguish successful student growth in this particular project if I allow students to move to other groups when they encounter problems? Should I have allowed failure?

Case 9

TO BE, OR "NOT"

I am a twenty-something male in my fourth year of teaching. I teach earth and physical science to 8th graders at a middle school located in a middle-class neighborhood of a large California city. My students are mostly from the neighborhood, with a large number of bus riders from other areas of the city.

I strongly believe working in groups is good for the socialization process. The adage that "we teach kids, not subjects" often holds true for me as a middle school teacher. Social skills, problem solving and decision making, personal crisis management, and acceptable behavior are often topics of discussion in my classroom. Like most science classes these days, my class is geared toward hands-on lab work, toward "doing" science rather than reading about science — which is as it should be. I believe that doing an experiment for yourself multiplies the amount and degree of learning that occurs. So while running labs for my students is much more time and energy consuming for me, I enjoy it, and my students overwhelmingly agree that labs are preferable to any other classroom activity. Additionally, the hands-on work gives kids who normally don't like school something to like.

Optimally, most lab work is performed in pairs, but that's made impossible by the realities of a shrinking budget, limited supplies, and a room providing only six lab stations for 30 or more students. So my students usually work on lab and other activities in groups of four. To prevent cliques from clicking and to manage any behavior problems that may develop, I change group membership often (whenever I get around to it).

I am often forced to adapt lab projects designed for two students to accommodate the necessity of groups of four. I have found most lab activities easily adaptable to fours, as long as there is enough work for everyone to have something to do. However, because of a ridiculous classroom architecture in which the sinks and bunsen burner outlets are directly against the wall and beneath low-hanging cabinets with fluorescent light fixtures attached, physical and visual access to experiments can be a problem for groups larger than two.

Students are responsible for participating appropriately in their groups: following lab rules, not disrupting other groups, and cleaning up. They are also responsible for turning in individual work, so they cannot rely totally on their partners.

When conflicts arise within the group, I try to allow the students to work them out before I intervene. Occasionally I remove disruptive students or those who do not follow lab safety standards. In addition, if an entire group becomes dysfunctional, I may shut it down for part of a period.

I assign groups randomly, more or less, so by the end of the year each student has had the opportunity to work with his or her friends several times, as well as the misfortune to work with the dreaded *nots* ("Not him!" "Not her!") on one or more occasions. This allows students to learn by experience that they can

work with anyone, even though it may take some effort. It is also an attempt at simulating life outside the classroom because, as we all know, in the real world you always get stuck with a "not." So I rarely listen to the cries and pleas ("But we don't get along!"), telling students that if they get stuck with a "not" this time, next time someone else will probably feel the same way about being stuck with *them*, so it all evens out in the end.

In one class, I found very few *nots*, if any. The kids all seemed to accept each other and willing to work with whomever I assigned them. Very early in the year, however, I found the exceptions in this seemingly idyllic setting: Dennis and Caroline. In no uncertain terms, they individually told me about their dislike for the other. In the unique language of 8th graders, they hated each other's guts. Their hatred was so intense that when either of them made a comment or asked or answered a question, the other would make a face, roll his or her eyes, or mumble something less than polite in an all too audible *sotto voce*. In short, they behaved like siblings. Were these the rumblings of a love-hate relationship, a case of simply not knowing each other well enough, or perhaps the result of an unresolved elementary school conflict?

Whatever the cause of their dislike, I intentionally kept them separated to avoid any unnecessary conflict during groupwork, as well as in their regular seating. That changed the week before winter vacation, when I was too tired to realize what I was doing and too preoccupied to care. On that fateful day, toward the end of a chemistry unit, when the luck of the draw brought Dennis and Caroline together to work on a two-day lab, their other partners, Scott, Patrick, and Lydia, must have thought *they* were being punished for something.

Dennis and Caroline both checked the group assignment chart as they came in, dutiful students that they are, and immediately came over to protest. I considered switching them to avoid the war they both assured me would soon follow. Although they finally convinced me of the grievous error I had committed, I decided to leave the assignment and just monitor their group carefully. I didn't want to set a precedent that went against my beliefs and goals for groupwork, one which would surely come back to haunt me: "But you let Dennis and Caroline switch!"

For this particular lab, my two objectives were for students to become more familiar with real life chemistry, in terms of using equipment and carrying out a test that chemists actually use, and for them to improve their thinking and problem solving skills. The lab involved a simple procedure by which groups could distinguish a number of chemicals by their reaction with a gas flame. I emphasized in my opening statements that students were to carefully observe the color of the flame, possibly making several tests with each compound, and describe the color as accurately as possible. The last part of the lab involved a problem solving activity in which the students were to identify some unknown compounds by comparing them to known compounds. The actual amount of work to be done was minimal, but this lab had never failed to captivate my students.

No sooner had the groups begun working than Caroline and Dennis began raising their voices at each other: No, you're doing that wrong... No, we already used that one... Let me do it, you're doing it wrong... That's the wrong color... You're hogging it. They were loud, but I let them work on with only a stern glance to show I was keeping an eye on them. After a few minutes of fairly quiet work, they began getting angry, and once again voices were raised as names were called and more accusations were hurled. This time, as I watched from across the room, Caroline and Dennis began almost wrestling each other for control of the equipment.

The little "I-told-you-so!" voice in my head finally spoke up. Had I goofed? Could I still remain on the sidelines? Had they gone too far? Would one of the other students take control? What was I to do?

* * * * *

I decided it was time to step in. I told them they were finished working and sent the entire group out of the room. I took a few minutes to compose my thoughts and threats and then met them outside. We reviewed the lab safety instructions for working with bunsen burners, and then I asked what the problem was. Caroline and Dennis were openly hostile, each interrupting and blaming the other for the group's failure, while Lydia, Scott and Patrick said they had no idea what had happened. Were these three being honest? Were they simply covering for the others in hopes of being allowed to go back inside? Or were they afraid of ratting on Caroline and Dennis?

I chose not to take the time to decide who was at fault. I was angry that they could not solve their problem on their own, and that the problem had come up during my class. I was not in the mood to mediate or arbitrate, and if they were not going to own up, I did not care that possibly innocent people were being punished.

Rather than spend the rest of the period refereeing, I decided to have the group attempt a social skills activity instead of a chemistry lesson. I instructed all five of them not to work on the lab, but to come up with a plan of action that would allow them to complete the rest of the lab the next day. They were not to continue the lab that day, or the next if they could not ensure that they would be able to complete it without my intervention. I heard them discussing *something* in loud voices, but I did not check back with them during the period. I did allow them into the room to clean up their lab station before they left.

The next day the class resumed the lab. As promised, Dennis and Caroline's group assured me that they were ready with a foolproof plan for their group, conceived of by Caroline and agreed to by Dennis. So I let them begin working. With only a few minor flare-ups, they worked the entire period and completed the lab. I could see on Dennis's face and hear in Caroline's voice the restraint they were showing. They did an admirable job, and I wished them an enjoyable vacation as I shooed them out the door after class.

When the class returned from winter vacation, I left the same groupings for the next lab, also a two-day affair. I again monitored Caroline and Dennis's group and this time heard and saw a much more workable environment, although they certainly were not one big happy family. There was still a good deal of hostility, although it was dealt with in a much more civilized way.

I asked Caroline and Dennis to come and speak with me separately after school about their group. Caroline told me that she and Dennis "just don't get along" and never had. She felt the cause of the problem was that all of her group members wanted to get involved, yet there wasn't enough for each of them to do. She admitted that, although she had blamed Dennis for causing the fiasco, the real obstacle to completing the lab was a communication breakdown in which one person was giving information while another was testing a second chemical, another was trying to verify which materials had already been used, and no one was listening to anyone. Her solution was for everyone to pay attention to each other and take turns doing the actual testing so that everyone could have a chance to do something. She told me she thought she and Dennis had learned to work together when necessary, but that they still did not get along any better.

In retrospect, Caroline made a valid point: there wasn't enough in this lab to keep five people engaged, a situation that had caused a lot of the initial frustration. Yet it was worth it for me to let them struggle through their frustration with the lab and with each other, and I feel it was worth it for them. They both came away with the knowledge that they had successfully solved a major problem that had prevented them from doing the lab, and that both might be better prepared if a similar situation ever arose.

Dennis's comments were much the same. He described himself and Caroline as "control freaks." Each of them wanted to be in charge and the other three group members were willing to allow that to happen. Dennis did not blame himself nor anyone else for the group's failure; in his eyes it was no one's fault. His solution was to give everyone a specific job to do, allowing each person to participate without interference from the others. If the others felt that one person's judgment was in error, each could write whatever they wanted; if they felt the person had made an inaccurate test, they were free to repeat the test later. Dennis agreed that he and Caroline could now work together again if necessary, but said he found that he was able to work with just about anyone anyway. And no, he didn't see any improvement in their personal relationship as a result of their working together.

In my own analysis, this activity had the potential for trouble, since it was neither designed for five gung-ho students working in a crowded environment nor adaptable to it. Although this was the only negative incident I've ever encountered with this lab, one way to prevent a repeat would be to have only half the class at a time work on the lab. But this creates other problems: multiple lessons plans, inattentiveness by non-participants, and extra supervision. In addition, I see that Caroline and Dennis have personalities that clash. Since neither is willing to give in or compromise unless forced, working together is difficult for them. I still believe that any two people can work together if necessary, and since we rarely get to choose our working associates as adults, the more practice we get working with the "nuts" on a temporary basis, the less painful it will be when we get stuck with one of them permanently.

Later on, Caroline wrote me a note saying that a few days afterward Dennis had come to her and offered a truce. She accepted.

Case 10

CONFRONTING ONE GROUP'S INERTIA

"Aw, Mrs. Weston, do we have to do this?" "What are we supposed to do anyway?" "I don't understand!"

Comments like these poured forth when I introduced the activity for collaborative groups to my freshman reading class. Still, I smiled confidently.

I'm an African American woman who has been teaching for 15 years, and I had just completed a training workshop in collaborative groupwork. In the workshop I had heard many reasons why this method of classroom instruction is exceptionally effective. Now, back in my classroom, I was convinced that once my students began to work together on the assignment, rich interactions would develop.

This prospect was particularly exciting because these students were low achievers. Their reading scores generally fell between 4.0 and 6.8 grade levels. The class included most of the minorities on campus as well as some of the school's least corrigible students. Approximately 75 percent were bused to the school daily from a low-income community 15 miles away. Difficulty competing academically with others at their grade level had burdened many with feelings of inferiority. Some became buffoons or bullies. Few would admit to their lack of basic skills or the extent of their struggle with printed text.

The task I devised was to give each group a poem illustrating a particular poetic form along with activities to help them examine it together. My intent was not to foster expertise in poetic verse, but to help students develop cooperative learning skills. Groupwork would give each student an opportunity to help complete the task by sharing his or her own special talents and understanding.

First, however, the students needed some preparation. Before giving them the assignment, I introduced the idea of imagery. We explored images through the five senses, read familiar poetic pieces, and discussed how images were expressed in them. The students then wrote their own short pieces, emulating the examples. In these ways, I introduced them to each poetic term they would later encounter in their groups.

Equally important, before this lesson, I engaged the class in several activities designed to build group trust and cohesiveness. These activities focusing on listening skills, respect for others, and being a polite audience were suggested at the seminar on groupwork. They set the stage for open exchange by diminishing the fear — "who's going to laugh at me?"

I selected groups arbitrarily. By chance, four boys who were enrolled in my class to improve their reading skills were grouped together. For the first few minutes after the class separated into groups, these four sat quietly, desks askew, each retreating into his own separate world. They didn't look at each other or speak. I was determined to give them an opportunity to break the ice and at least begin

discussing the task before I intervened. They continued to sit nervously and wait, knowing that I would eventually rescue them.

One boy pulled his hood up and rested his head on the desk. Face hidden, he completely withdrew from the group. Another pulled out a pencil stub and began filling a sheet of paper with drawings of 45 magnums. He nonchalantly swayed his head and made sounds like guns firing. The other two boys sat awkwardly for a few minutes, then began a game of tic-tac-toe that soon grew intense and noisy. All four gave the impression they didn't care if the group worked together or not.

When they saw me glance in their direction, the tic-tac-toe players began complaining that the group just wouldn't work together. They asked to be changed to another group. The hooded student lifted his head and sullenly announced he couldn't work because I hadn't personally told him what to do. Ironically, he was the designated facilitator, responsible for insuring that the others were interacting.

By this time I was becoming uncomfortable. I walked to the group and spoke to the hooded student. "Do you have questions about your responsibilities in the facilitator's role?" I asked. I instructed him to review the board where the list of duties for each role was described. He slid down further in his chair and said, "What are we supposed to do?" Pointing to the activity sheets, I asked if his group had read the instructions for the task. The others began to joke nervously about the facilitator's ability to read. I glared sharply, and they quickly muffled their laughter. But I was disappointed to see that there had been little transfer of the politeness skills we'd worked on in advance of the actual groupwork.

Turning back to the facilitator, I suggested that the group consider reading the task to see what understanding they could glean from the instructions. I also suggested that they turn their desks around to face each other to create a bit of group togetherness. Before any of them could again voice their confusion or helplessness, I quickly exited, promising to return shortly to check their progress.

They continued to grumble and complain about having to sit in groups to do a dumb assignment that the teacher refused to explain. Finally, one of the boys said to no one in particular, "What does that assignment sheet say anyway?" The others didn't respond.

When I returned to the group a little later, they began blaming each other for being unable to get started. The facilitator said his group was dumb and wouldn't work. They all agreed that the assignment was just too hard. I couldn't tell whether they actually couldn't understand the instructions or were just saying so as an excuse to avoid getting started.

My first inclination was to read the assignment sheet to them while explaining exactly what they were to do. But because I wanted to encourage them to become independent learners, able to rely on the special talents that each brought to the group, I felt I had to allow them time to flounder as part of the process of getting comfortable with groupwork. I was optimistic that they would ultimately start interacting and trust their own insights rather than simply waiting for me to give them mine.

By the end of the period, however, the group still had not begun to work together. The facilitator remained withdrawn and uninvolved. The rest of the group took its cue from him and found distractions. Much to my chagrin, little spit balls flew across the room from their direction. I sighed, feeling my earlier enthusiasm for groupwork beginning to wane. As the class was leaving, the budding artist who had spent much of his time drawing guns frowned apologetically and said, "You know, Mrs. Weston, poetry is just not my thing!" Drawing pictures apparently was.

I tried to analyze what had gone wrong. What could have helped this group other than totally reassigning its members or doing the assignment for them? Students often learn to be dependent upon teachers by feigning helplessness. Aware of this – and of my penchant for rescuing students – I had fought the temptation to take over. I decided now to work with the group a little more to help build their confidence. But I would take care not to encourage their dependency.

The next day I sat with them for the first few minutes and suggested ways they might get started. I said they might allow Darren – whom I had determined had low status in the group – to read the instructions orally. As Darren read, the group appeared to listen intently. But when he finished, they barraged me with questions about what they should do next and how I thought they should solve the problem. I quickly left, wanting them to discuss on their own how to proceed. At last, they were interacting!

Unfortunately, their discussion soon fizzled. They returned to their previous inertia. Their problem appeared not to be the level of difficulty of the assignment but their reluctance to risk exposing themselves to failure in front of their peers. After all, each had his own reputation and macho image to uphold.

When it was time for each group to make its presentation, all four slid down in their seats and tried to appear invisible. Under protest, they finally sauntered to the front, their pants dragging on their hips. They appeared embarrassed and joked to hide their discomfort while the class impatiently waited for them to begin. The reporter for the group explained that the group had fooled around and hadn't told him what to say. Before returning to their seats, they admitted they hadn't been very serious about the assignment, and that's why they had no presentation. I was pleased with their honesty and remarked to the class that their admission displayed a level of maturity.

In the discussion that followed, the class explored the problem of how to handle uncooperative group members. Students contributed ideas on how to get group members to share. They suggested, for example, that asking everyone in the group to express ideas and then listening to all comments without criticism would help to make everyone feel like an important part of the group. The class also concluded that trust was one of the biggest factors in group success. Members must feel comfortable to share without fear of being put down or having their ideas ridiculed.

The class, then, benefitted from this activity because the four boys provided them with a prime example of a dysfunctional group. But was this a positive outcome for the boys involved? What was the effect on them of having their dysfunction exposed to the class? If that effect was negative, were the merits of groupwork undermined? In pondering these questions, I resolved that in the future I would exert more control over the one area that may have contributed to the group's demise: group mix. I would attempt to use arbitrary grouping less, instead striving to guarantee a more heterogeneous mix of students.

CHAPTER II:
FACILITATING GROUPWORK INTERACTIONS

B. Low Status Students

Case 11

SILENCES: THE CASE OF THE INVISIBLE BOY

Dennis was one of the B-Boys — a name bestowed almost affectionately by the front office upon a group of thuggish, low-achieving boys who all happened to have last names that began with the letter “B.” By October they would all have shirts with bulldogs silk screened on them, a symbol that identified them with a nearby street gang.

Just a little too thin, and slightly drooped at the shoulders, Dennis was an expert at being disengaged in class, and a master magician whose greatest trick was making himself invisible. His book would be open, paper and pencil ready, but a closer inspection would reveal, instead of history notes, page after page of drawings — guns, gang graffiti, and comic book heroes.

Not too long after school started I realized that Dennis might have a tough time making it through my inner-city 8th grade class. In hopes of helping him along, I decided to apply some of the things I’d learned the previous summer in a seminar on Complex Instruction.¹ With Dennis, I intended to test its promise that low achievers improve academically when participating in open-ended groupwork activities, and that student learning increases in proportion to student interaction. I wondered whether Dennis would become a better student as a result of participating in groupwork.

In the beginning, I hadn’t pushed Dennis. Given the contrast between his poor academic record and his average test scores, I assumed that teachers had already pushed, cajoled, embarrassed and punished Dennis in hopes of jump-starting his interest — all with little success. I doubted that I alone could spark his curiosity, but hoped that Dennis’s peers might be successful where teachers had failed. I decided to let the group projects entice him.

My teacher instincts told me that as others valued Dennis’s contributions, he would strive harder and improve academically. While he was not great at reading and writing, he had a natural talent for drawing — an intellectual strength that would be in high demand since many group projects require analyzing and creating visual representations. On the other hand, part of Dennis’s strategy for remaining invisible was to answer every question with the same response. Whether it was a standard “check-in-and -see-if-he’s-paying-attention” question or a “high-interest/no-right-answer” question, his answer was always the same: “I don’t know.” Not surprisingly, his classmates perceived him as being intellectually weak.

Knowing that the low expectations of his peers would inhibit Dennis’s ability to fully participate in the small group projects, I planned to alter their expectations by assigning competence to Dennis, whenever

¹ Complex Instruction, developed at Stanford University, is a groupwork model that emphasizes the development of higher-order thinking skills in heterogeneous classrooms. It addresses issues of status that arise in small groups.

possible taking special care to point out his intellectual abilities. This is the opposite of the “pull yourself up by your boot straps” approach teachers often use with students in groupwork. It proved harder than I had anticipated, however, because initially at least, Dennis contributed nothing to the group’s work.

He would not read in front of his group, nor would he draw anything for the project. His standard response was, “I can’t draw that.” When students discovered that he was going to be in their group they would shrug their shoulders and roll their eyes. They would complain to me and give Dennis bad evaluations on their feedback sheets. I tried everything I could think of to improve the situation: I spoke to Dennis, I spoke to individuals in his groups, and I carefully constructed his groups so he would be with supportive and accepting students. As often as possible, I put Dennis in a group whose project required artistic ability. Finally, thanks to my suggestions and direct interventions, the other students got the idea and began to try harder to at least nominally include Dennis, continuing to ask him to draw their ideas.

Slowly, Dennis responded. In November he drew a tricycle by way of constructing a metaphor for the three branches of government. In early February he drew some illustrations for a children’s book about cowboys. But in the end, these drawings alone were not enough to pass my classes.

Dennis earned straight F’s in English and social studies over four marking periods. Academically, he wasn’t making strides. I had looked for every opportunity to assign competence to Dennis, but they were few and far between given his lack of involvement in any activity other than drawing, which itself was sporadic. I had given him help in reading, talked to his counselor, and had conferences with Dennis — all to no avail. By April, it was clear to Dennis, to me, and to the other students that he would not go on to 9th grade.

I was baffled. Why hadn’t he flourished under my tutelage and Complex Instruction? Why wouldn’t he participate? If student interaction increases learning, how could I have overcome Dennis’s silence? How could I assign competence if he didn’t do anything? What was my appropriate role in this kind of situation?

In hopes of finding answers to some of these questions, I decided to audiotape Dennis’s group — and my interaction with it — during the Civil War unit. I intended to play it back when I had time to really listen and reflect.

The day I chose to tape had been a wild one. Thirty-two 8th graders were hunched in groups of four over resource cards that detailed the Civil War era. The classroom noise was at fever pitch as the students fired ideas back and forth nonstop, trying to choose a focus for their group projects.

As I moved from one group to the next, prodding, observing, and encouraging, I noticed that Dennis was not engaged with his group, which I had specially crafted with him in mind. Dennis had previously worked with two members of this foursome and I knew that if nominally pushed, both would be kind and try to include him. The fourth member, Tonesha, was a wild card. On any given day you didn’t know whether she would be a social butterfly or a manic depressive.

But on this particular day, it made little difference to Dennis, because he wasn’t participating anyway. Instead, he sat slightly apart, fidgeting with a globe, which he used as a convenient barrier between himself and the rest of his group.

Frustrated, I went over and chided him, telling him to join his group. But he failed to respond, continuing simply to twirl the globe. Irritated, I moved his chair — with him in it — so there would be two students on each side of the table. Surely, I thought, the foursome would work better together if they all faced one another. I also moved the globe to an adjacent empty table.

“Dennis is in your group, too,” I admonished the other three members, hoping to nudge them into trying to include Dennis despite their feeling that he was a “failure.”

“We can’t make him,” mumbled Tonesha.

Inwardly, I agreed. Outwardly, I ignored her comment since it could only lead us over old ground. I simply made my point and moved on.

The task of Dennis’s group was to make a poster encouraging residents of Maryland, a border state, to join the Union rather than the Confederacy. At the moment, they were working with resource cards. Unfortunately, when I subsequently returned to the group, I could see that these four students had not coalesced: Carmen and Tiffany were huddled over a resource card, but Tonesha was reading a list of songs from a “Red Hot Chili Peppers” tape and Dennis was staring into space, once again twirling the globe.

Frustration and disappointment rushed through me as I realized that despite my best efforts over the previous seven months, I’d been unable to help Dennis, to teach him, to touch him. He remained the lowest status student in my class.

Trying to keep the edge from my voice, I addressed the girls: “Is Dennis a part of your group today?” Although Dennis piped up with “yeah,” and Carmen echoed him, I knew this was merely a ploy to send me on my way. I challenged Carmen, asking her directly, “How is he helping today?”

Dennis spoke up for himself. “I helped answer the questions.” I knew that this was a charade, that he had done nothing. And I was stumped by the willingness of Carmen, Tonesha, and Tiffany to perpetuate the lie. I wanted them to know that they had a responsibility to help get Dennis involved in their work. So I asked, “How are you helping him feel like he’s a part of your group?”

Dennis asserted himself again. Sounding almost as if he were trying to get the girls off the hook, he said more than I’d heard from him all year. “They’re letting me discuss Carroll,” he asserted. “They’re talking about how she lived and stuff.”

I realized then that discussing Dennis’s activity in the group would get me nowhere. I could almost feel myself deflate. So, with the demands of 28 other students pressing on me, I simply let go. I succumbed to the status quo called “Let’s pretend Dennis is part of the group.” Dennis and his fellow group members knew, as I did, that time was on their side, that I would eventually have to leave them to continue working with the other groups. But before leaving, I attempted to make eye contact with all four, asking, “Are you all feeling okay?” “Yeah,” Carmen answered for the whole group. I then asked if everyone had all the answers to their project questions and Carmen responded with a quiet, truthful, no.

I then looked directly at Dennis and, with my last stab at pushing him toward the project, said, “OK, make sure you all get them.”

"I know," he responded with great assurance. But I knew that his answer was as empty as his folder, his portfolio, his binder.

Several months later, I began to reflect as I listened to the tape of that interaction, I had to listen three times before I realized what really transpired that day — and a fourth time before glimpsing the implications of my role.

I had seen with my own eyes that Dennis wasn't engaged with the group. They had all lied to me about his involvement. I knew it was a lie, but hadn't confronted Dennis because I believed that he would close down even further.

In a teacher-centered classroom, the withdrawn behavior of a student like Dennis is between him and the teacher. His fellow students are aware of the behavior, form opinions about him because of it, and may in turn reinforce his own low expectations of himself, but they are generally unaffected by his behavior. By contrast, in groupwork situations, a student's silence — Dennis's unhealthy invisible act — impacts his fellow students. They count on each other to help the group get a good grade, and one student's silence becomes a noticeable absence.

Believing that group expectations greatly affect the performance of its individual members, I had tried to stir the collective conscience of Dennis's teammates by asking what they were doing to make him a part of their group. It didn't help. In the end, it proved difficult to alter people's perceptions of Dennis, both his classmates', his own — and, as I now realize, my own. We all participated in letting him remain aloof, and our collective failure to take responsibility for helping Dennis is itself immoral.

What became apparent during my fourth review of the audio tape was my own collaboration in Dennis's silence. I realized I had addressed the other members of the group as if Dennis were truly invisible. Instead of assigning competence, I did the opposite: I disembodied, objectified and ultimately disempowered Dennis. No wonder the expectations of his peers were lower than I would have liked. In my own way, I had unwittingly silenced him. I sealed and sanctioned room 20's unspoken understanding that "Dennis doesn't seem to be able to perform at an appropriate level; make room for him at your table; try and be kind."

The best of intentions are not always enough to overcome the powerful model of teacher example. Dennis failed the last two marking periods as abysmally as the first four and did indeed fail 8th grade.

I had chosen to focus on Dennis with the hope that he would make a miraculous academic recovery if only I introduced groupwork and Complex Instruction. The fact that he didn't indict neither groupwork generally nor Complex Instruction specifically. Groupwork offers all students, including ones like Dennis, many more immediate opportunities for academic participation than do traditional forms of teaching. But no teaching method used as part of a social studies program for one academic year can turn every kid into an "A" student. Dennis's participation in some of the projects, while not enough, was positive and most likely more than his involvement in any other class. I like to think that if I'd had one more year with Dennis, I might have seen what I'd hoped for. But one year of Complex Instruction could not erase what had probably been an eight-year downward spiral.

BEST COPY AVAILABLE

Case 12

LEARNING TO LISTEN TO ROBERT

I believe each child teaches the teacher in new ways. After 10 months with Robert, I am still learning.

I teach a combination fifth-sixth grade science class in an urban elementary school with a large minority population. Robert, an African-American child, came into my class as a new student several weeks after school started. He was large-bodied, slow-moving, and frequently late. He was also an excellent artist. Test scores from other schools revealed that Robert was a capable reader, and he never hesitated to speak up. Unfortunately, he always seemed to say just the wrong thing in just the wrong way.

Robert's speaking style was rapid and disjointed, and he sometimes stuttered. A typical sentence might be "I, I, I, I think, you know, I, I, what I think, I think that, you know, on TV, one time I was watching, TV, and, and then, I saw, I saw, you know, this kind of thing, this animal and it had a special way of protecting, you know, protecting itself." Although Robert seemed to know a lot about animals, it didn't take long before most of his fellow students grew impatient listening to him.

Delivery problems aside, many of Robert's comments seemed like non sequiturs, often leaving adults and children shaking their heads in confusion. For example, while the rest of the class concentrated on a science problem, Robert might easily announce that he had just received his new Nintendo. He seemed to have little sense of how to participate in sustained classroom conversation. This was a problem because, in this classroom, the act of talking, sharing thoughts, and exchanging meaning via dialogue was considered crucial to the deep exploration of content themes by children and teachers. Robert also spent a fair amount of time in his own little world. While other students talked, Robert often mumbled to himself or sang a quiet tune. Frequently, he seemed unaware of making these noises.

As a consequence of his idiosyncrasies, early on in the school year it seemed everything Robert said was either ignored or refuted by the other students — even when he was right. As one student said: "He just don't make any sense." As his teacher, I too was hard-pressed to always know the relevance of the comments he offered or how they might fit into the ongoing conversation of the classroom. By late September it seemed clear that he had little status — with fellow students or his teachers. But I had hope for Robert.

After 12 years of teaching elementary school science and four years on the Brown/Campione research project, I have concluded that the child considered most irretrievable by others' standards might well shine when talking about and doing science. Over the years I have noticed that the child who doesn't do well socially or academically and who is regularly discussed at staff meetings, may often set the stage for the most thoughtful discussions, both in the classroom and in the teachers' lounge. For years now, I have been grappling with the notion that low status children can drive classroom conversations in new and exciting directions, their provocative questions and comments taking teachers and fellow students into

uncharted territory. As I considered Robert's status in the classroom, I realized that he offered a perfect opportunity to further examine these assumptions.

Early in October, immediately after one small group reciprocal teaching session about interdependence in the natural world, I began to suspect that there might be some important biological arguments buried in Robert's rambling and seemingly random comments. Robert belonged to a group of five students and one adult who were using reciprocal teaching¹ to discuss several pages of a complex text that described the relationship between the use of DDT and the peregrine falcon's endangered species status. The aim was to have the students develop a deep understanding of the important scientific theme of interdependence.

Throughout the discussion, Robert repeatedly tried to bring up the notion of using soap instead of a pesticide like Raid or DDT to kill insects. As usual his ideas and words were disjointed: "If, if you tried to use soap, you know, to spray the plants with soap, you know, soap on the plants, the plants, you know, then, the DDT wouldn't be, you know, the soap and the bugs, the bugs would die...then there wouldn't, you wouldn't need no, no, no DDT or Raid." The children were confused since this particular story mentioned neither bugs nor Raid. Instead, the text explained how DDT had affected falcons' eggs and the birds' reproductive capacity.

Both Lassie, a girl with keen intellect, acerbic verbal skills, and high social status, and Ron, a quick talker, strongly disagreed with everything Robert had to say. They responded to his comments with statements like: "What are you talking about" or "I just don't understand that." Nellie and Jennie remained quiet.

While talking, Robert had also been drawing in his notebook. He held it up saying, "See, see, it's here, the soap and the bugs..." He had drawn a short food chain with the peregrine at the top and the bugs (and the soap spray) near the bottom. With this drawing, he proved that he already understood the notion of interdependence, of toxic substances moving through the food chain. Robert understood the issue, but was unable to convey that understanding to the others in his group. "What does soap have to do with falcons?" the children repeatedly asked. "That's not what we're reading."

Robert tried several times more to break into the discussion, but each time he was misunderstood and his comments dismissed by the other students. All this happened so quickly that it was only in hindsight that I could appreciate the complexity of Robert's reasoning. Near the end of that session, when I began to recognize where he might be heading, I tried to give Robert another chance, by asking more about his bug/soap theory: "Can you explain that some more to us?" But Robert still wasn't able to clearly articulate and link his ideas. His effort to let the drawings speak for him was unsuccessful, and his ideas were temporarily lost.

Upon later reflection, I realized that Robert's notions about alternatives to DDT and DDT's effects on the food chain were concepts that all the children could have profitably examined. By failing to explore these ideas we all had missed a golden opportunity.

¹ Reciprocal Teaching (RT) was designed by Ann Marie Palincsar and Ann Brown in 1984. RT provides students with a set of cognitive strategies which enable the reader to have greater access and understanding of the text. Through a variety of questions, first modeled by an adult, the child learns the importance of clarifying, predicting, summarizing and interpreting newly revealed material. After seeing strategies modeled by an adult, students are encouraged to take turns being the "teacher." Eventually, all RT groups are directed by the students themselves.

I began to suspect that Robert had other worthy notions to contribute. But unless he was heard by other students, future opportunities would also be lost. Over the next few months, I listened very closely and came always to expect an original, but difficult to interpret, comment from Robert. I also saw that because of his low status, Robert was becoming increasingly invisible. He was beginning to speak less frequently in small group discussions.

I began to look for ways to capitalize on Robert's words. Theorizing that a certain percentage of his ideas might help generate high-level discussion, I decided that if necessary I would actively intervene so his ideas could be heard by other students. I waited for an opportunity to present itself.

In December, two months after the group discussion about DDT and falcons, the same group of five students discussed aquatic animals that are harmed or made extinct by DDT and other habitat disruptions. Nellie had asked for help in deciphering an article on fish extinction and, in the middle of the discussion Robert interrupted with a loud, "I got it."

In his typically garbled syntax, he offered an idea. "They should get some fish genes and then get some plant genes — then they mix them up and then it would be a fish-plant — then they couldn't be harmed by DDT." He followed this statement with a convoluted story about eggplant mutation. The rest of the group was surprised — and confused. Ron said: "I think he's trying to say that fish genes should be mixed with plant genes so DDT wouldn't harm them."

No one picked up on the comment and the conversation shifted back to Nellie's original question. She was confused, in part, about the term "re-discovery" as applied to a rare species of pupfish thought to be extinct. I explained that scientists can't "re-discover" a species that is truly extinct, but that if a small number of that species happened to be living undetected in a remote area, they could someday be "re-discovered." I mentioned that this had, in fact, happened with several species that biologists once thought to be extinct. Just after this explanation, Robert loudly chimed in: "Oh I get it, oh I get it...you said you can't discover the same thing, that's what you're saying — like if they died you can't re-discover the same fish. Yeah."

Robert's comments revealed his understanding of a difficult concept. I quickly realized that we might be teetering on the edge of a discussion that might lead to deeper biological principles. Because I had learned an important lesson from the soap/DDT reciprocal teaching interaction, this time I decided to seize the moment, unwilling to let a potentially rich conversation die for lack of encouragement. I made a quick decision to redirect the discussion to Robert's gene theory, in an attempt to get to the heart of his meaning. I knew there might not be gold in Robert's words but decided that it was worth the gamble.

I temporarily resumed teacher control of the small group by asking Robert to further explain his original fish-plant gene idea. So Robert explained: "It's like — you know — it's like you got the genes of your momma and daddy, you know what your momma and daddy give you so — like the genes of your ears are from your momma or your daddy, that's who you got them from." Happily, other students, especially Lassie, also wanted to talk about genes. Listening to Robert, they were saying "Oh" and "Yeah" in unison. Lassie interrupted, saying, "Like my Mom has grey eyes, so I might get my grey eyes from my Mom. That would be a gene, right?" The other group members again said, "Yeah."

As a group, we had begun to negotiate meaning for the word gene, using Robert's original fish-gene "thought experiment" as raw material for discussion. The group would need to negotiate and refine that meaning over time, yet, this was an auspicious beginning and Robert had brought us here.

In his comment — "I think he's trying to say...." — Ron had attempted to reinterpret Robert's original suggestion. In doing so, Ron had emphasized the importance of Robert's notions, giving them status for the rest of the group. The same thing occurred when Robert and Lassie together explored the meaning of the term gene.

In fact, the children had all helped to teach each other, but the original impetus had come from Robert. And the actual negotiation of meaning had occurred only after the discussion had slowed down enough so that children actually listened to each other — especially to the seemingly strange notion of fish-plant genes. By actively intervening, I had changed the group process so that other children had to consider Robert's solution. Because I intervened, one unlikely child brought a certain content richness to a small group discussion.

While talking and listening with the group, I was aware that we had achieved a significant breakthrough, and I was gratified that Robert's comments took the group on an important side trip to genetics. This event verified my belief that low status children can propel discourse to new and exciting terrains, when given the opportunity. While I never can predict the exact content or time of the interaction, I could be relatively certain that such a conversation would eventually take place. Robert had elevated, rather than dragged down, the discussion and thus led five other students to a new level of questioning.

I would like to say that this event turned everything around for Robert, that students subsequently valued his comments, but this is not the case. One successful session did not solve long-standing problems. Things improved, but it was still a struggle. Months after the fish-gene episode, Robert's group still most often ignores his repeated "I know, I know."

Subsequent small group sessions were firm reminders that guiding equal access to dialogue to all children, but especially low achievers, would be a continuing struggle and that small victories could be obliterated. Because I had seen how Robert enriched several discussions while children were engaged in deep and challenging content areas, I continue to work towards leveling the playing field so that all students can participate fully.

Yet, because I want students to take maximal ownership of their own learning, the line between student- and teacher-direction must constantly shift in creative and flexible ways. I am left with questions that strongly influence my teaching practice and subsequent reliance on the theory that underpins practice. First among these questions is how a teacher can know when a potentially rich content area and its accompanying social interactions warrant intervention. Just how much will be "enough," understanding fully that both social skills and content knowledge will increase over time so that less intervention eventually will be necessary? Inquiry into these areas requires time, patience, and new insights into group process. Students like Robert show the way.

Case 13

THE CHANCE I HAD BEEN WAITING FOR

I believe cooperative groups are most effective when the students engage in rich complex activities, learning by doing. I also believe they learn more when the teacher's role is to facilitate learning instead of just imparting information. Yet when my students do groupwork, I always struggle with the same dilemmas: if and when to intervene and how to ensure that low status students actively participate and high status students do not dominate.

Thirty percent of the students at our school are Hispanic, many bused from other neighborhoods to attend our bilingual program. Most of our native Spanish-speaking families are originally from small communities in Mexico; the parents are migrant workers and the families move with the growing seasons. Few of these families speak English, and most have very low reading and writing skills even in their native language.

I taught in Mexico for three years before moving to the United States and becoming a bilingual teacher. Because I went through some adjustments myself, I have been able to relate to the struggles of my Spanish-speaking students as they search for their place in this new culture. From the beginning, I planned a lot of cooperative activities that would allow students to interact regardless of their language ability. This way everyone can learn from each other.

Whenever we do groupwork, I choose activities complex enough to require many different abilities. To complete a task, a group needs students skilled in reading and writing, but also those with other abilities such as balancing, building, drawing, estimating, hypothesizing, and measuring. Every member of the group can use at least one of his abilities and can contribute to completion of the task. Each student plays a specific role in the group: facilitator, checker, reporter, or safety monitor. Task instructions are always provided on activity cards in both English and Spanish, and in each group one student serves as translator.

I use specific strategies to encourage students to use their many abilities and to recognize them for doing so. For example, I observe them as they work in groups and give very specific and public feedback. I also show how what they've done is critical to the task at hand and how they contributed to their group.

The groupwork has by and large been very successful. At the beginning of the school year, there are always some academically weak students who are clearly considered outsiders by their classmates. By the end of the year, however, most have developed a sense of belonging. They have become active participants in their work groups and begun to demonstrate more self-esteem.

But one year, one particular low status student in my third grade bilingual class showed no signs of being integrated into his group. He just had too many problems to overcome.

Miguel was a shy and withdrawn child who spoke no English and stuttered when he spoke Spanish. His Spanish reading and writing skills were very low, and although math was his strength, nobody seemed to notice. Recently arrived from a small community in Mexico, Miguel lived with relatives — more than 10 adults and three children in a two-bedroom apartment. He came to school hungry and tired, wearing dirty clothes. Shunned by his classmates, who said he had the “cooties,” Miguel was left out of group activities. Even when he had a specific role, other members of the group would take over and tell him what to do. Miguel was obviously a low status student.

When I observed Miguel’s group I saw that the other members simply wouldn’t give him a chance. Cooperative learning was not helping him at all. Miguel grew more isolated by the day. Students increasingly teased him, and he was getting into fights and becoming a behavior problem. I realized the only way to change students’ views about Miguel was to show them that he had certain abilities to contribute to his group. My challenge was to identify his strengths and show his peers that he was competent.

One day in May, we were working in cooperative groups building different structures with straws, pins, clay, and wires. I was observing Miguel’s group and saw him quietly pick up some straws and pins and start building a structure following the diagram on one of the activity cards. The other members of the group were trying to figure out how to begin their structure and, as usual, were not paying much attention to Miguel. I observed that Miguel had put double straws to make the base more sturdy. He knew exactly what to do because he had looked at the diagram on the card. In other words, Miguel knew that the task was to build as sturdy a structure as possible, and he understood the principle of making the base stronger by using double straws.

I knew that this was the chance I was waiting for; it was clear that Miguel had the ability to build things by following diagram^s. I decided to intervene, speaking both Spanish and English since not everyone in the group spoke Spanish. I told the group that Miguel understood the task very well and would be an important resource because he had a great ability to construct something by looking at the diagram. I also said that Miguel might grow up to be an architect since building sturdy structures by following diagrams is one of the things architects need to do. I also told the group they had to rely on their translator so Miguel could explain what he was doing.

I continued observing the group from a distance and, sure enough, a few minutes later the translator was asking Miguel for help. Miguel explained to the members of his group what he had done and why. It was obvious that he had abilities that could help him succeed in cooperative learning groups, and his group finally realized it. But I wanted everyone in the classroom to know that Miguel was very good at building structures. So when his group reported on their work, I said I had noticed that the group had had some problems understanding the task, and I asked the group reporter what had helped the group complete the task successfully.

The reporter told the class that Miguel had understood what to do and had explained it to the group. I then reinforced the reporter’s explanation, adding that Miguel had shown competence in building things by looking at a diagram and that his contribution had helped his group solve the problem successfully. By assigning competence to Miguel in front of his group and the whole class, I made sure everyone knew that Miguel had a lot to contribute to his peers. This was a wonderful example for everyone of how important it is to explore the multiple abilities of all group members in completing the task. After this, things changed for Miguel. His fellow group members not only recognized him as an active member, but began using him as a resource to help them balance their structures.

Miguel's status changed after my intervention, but I am convinced that, had I recognized his competence earlier in the year and given him specific feedback, his school year would have been much improved. The experience raised a number of questions for me: Why hadn't I taken the time to observe Miguel's performance earlier during the year so he could have been viewed as a resource in both groupwork and other areas? Had I somehow been convinced that he had no abilities? What would have happened if I hadn't been observing during those few seconds when Miguel was building his structure and no one was aware of what he was doing? Would Miguel have continued to be totally ignored by his peers? How long would it have taken for someone to realize that Miguel is a capable boy? What happens to students like Miguel who have abilities no one knows about? Will they ever be successful? Sometimes I feel I don't see what's right in front of me, and tend to have low expectations for low status students, forgetting that the less we expect, the less students will give.

Miguel is not at my school anymore, but I have heard he is doing well. He still has problems, but he has more friends and is getting better grades. I want to think that some of his success was because of my intervention.

CHAPTER II:
FACILITATING GROUPWORK INTERACTIONS

C. Interactions With Parents and Colleagues

Case 14

AN EXTRA AUDIENCE OF CRITICS: HANDLING A PARENT'S RESPONSE

I am an intern teacher in the social studies department of a high school in an upscale San Francisco suburb. For a variety of reasons, I feel especially fortunate to have received this particular placement. Discipline is rarely an issue because students have been socialized to obey, respect, and trust their elders. The social studies department is close knit, its members mutually supportive. My colleagues are sensitive to the demands of the education courses I take in conjunction with my teaching assignment. And because I have only one prep, I have more time to plan and learn the content of my curriculum.

My school also has an involved and well-educated parent population. But it's this fact, ironically, that has proved a mixed blessing. Most of the parents have advanced degrees, they have their own ideas about teaching and, let me tell you, they are quite vocal about how things should or shouldn't be taught.

I learned this firsthand when I was wrapping up a unit on the Renaissance, in which I had concentrated on the intellectual concepts that distinguish the Renaissance from the Middle Ages. To conclude the unit, I devised a group project called *Living Art*, which asked students to draw connections between Renaissance art and the major intellectual themes of the period.

I divided the class into six groups and assigned each a Renaissance masterpiece about which they would become experts. The project included three tasks: 1) as a group, research the assigned painting and its artist; 2) as an individual, write a report that analyzes the work and explains how it portrays Renaissance ideas and values; and 3) again as a group, use costumes, props and a backdrop to pose as your painting, and, at the same time, present the information found in the research, noting the themes in particular.

To evaluate the assignment, I planned to have the other students assess the accuracy of each group's pose, backdrop, costumes, and props while I graded the individual reports, the students' ability to work as a group, and the content of the presentation.

I created this assignment because I had learned in my education courses that students have a better chance of internalizing conceptual information when it is presented through visual and kinesthetic learning activities. In theory, this type of assignment engages more students than a traditional reading- and writing-based assignment because a wider range of abilities is required for successful completion of the project. I had hoped that this assignment would encourage my students who have difficulty reading and writing to participate because it offered them a chance to shine in non-traditional ways. I was soon to find out that some did not agree with my methods.

The first day went according to plan, with all the students working diligently on their research and sharing information amongst themselves surprisingly well. The second day began smoothly as well. The

students worked hard on their individual reports. (I had imposed test-like conditions to convey the importance of the report.) During the second half of the period, when the groups met to plan the pose and presentation, things were a lot more chaotic. Within their groups, students had difficulty listening to each other and getting organized. Some groups struggled to decide whether to first tackle the pose or the creation of the backdrop. Personality conflicts that might seem subtle in a teacher-centered classroom were amplified in this setting.

I found it hard to watch all this. I realize now that it's uncomfortable for me as a teacher to relinquish control. But in order for students to learn the skills necessary for successful groupwork, I felt I had to let them argue and otherwise work conflicts out on their own.

For this assignment, group size depended on the number of characters in the painting. Because one of the slides I selected, da Vinci's *St. Anne and the Virgin*, has only two figures, one group was comprised of just two students. I chose Sara and Samantha, best friends who are both accomplished, motivated, and mature students. Although I had conceived the assignment as an in-class project, I made special allowances when these two asked to work on their backdrop at home over the weekend. I never considered the extra audience of critics that would be there to supervise the work of the two girls.

On the last day of the assignment, the poses and presentations went very well. My advisor and the department chair observed, and were impressed with the complexity of the reports and the pride the students took in posing. Students brought in elaborate costumes and took the posing very seriously — I think peer grading of poses gave added incentive to strive for excellence. The students also made impressive connections between the paintings and general Renaissance themes. The general level of artistic analysis was, in my opinion, college level, with students discussing such things as the use of perspective, sfumato, chiaroscuro and controposto. Sara, for instance, told the class that, until she had tried to pose as St. Anne next to the Virgin Mary, she hadn't noticed how inaccurately da Vinci used scale. Only when trying to recreate the painting's pose with her group partner, did Sara realize that in real life a human arm would not be able to extend across Mary's body as it had in the painting.

In this project, I felt I had achieved my goals. Even students who are typically underachievers were actively engaged in this project. I also felt the students made the connection between Italian Renaissance art and the larger themes that characterize this period in history. As a beginning teacher, I had rarely experienced teaching success, but at the end of this assignment I felt a rare sense of euphoria. It wasn't to last.

The project concluded on a Tuesday. After the students finished their presentations, I debriefed them. On Wednesday, I began instruction on the next chapter, the Reformation. No problem.

Friday came, and with it came the problem. As the first bell rang that morning, Sara approached with an odd grin, handing me a sealed envelope. "Here, Ms. M," she said, "This is for you." I put it aside and began the class. It wasn't until afterwards, when I was alone, that I sat down to read the letter. Although I opened it with the curiosity of a child opening a gift, the single-page letter signed by Sara's father proved less than a welcome present:

"Dear Ms. M,

"Last weekend, Sammi and my daughter Sara spent some time with paper, slide projector, pastels and tape, drawing the background for what I'm told would be an

in-class pose of one of da Vinci's work. My first thought was: 'How sweet.' My second thought, once I realized that the first thought was only appropriate for a grade school project, was: 'What is this for?'

"Now both kids assured me that the posing is in conjunction with a report on Leonardo and serves as additional material. However, they did mention that posing and drawing was assigned, not optional.

"Now, I remember hokey stuff like that from my own elementary school days several hundred years ago: a quiz show featuring food, clothing, and shelter of Peru.

"But this is high school. Are the kids incapable of learning without entertainment? Or is this a clever scheme so that when the subject of art comes up in twenty years, something will immediately spring to mind? Or perhaps the problem is that there's not enough material to teach in this year's social studies class? In other words, did someone really suggest this is a curriculum write-up? And did you believe it?

"Do I misunderstand? Were the kids staging an elaborate hoax on an impressionable parent to make him believe that there's so much time in the school year that you have the liberty to engage in this crap?

"I feel obliged to say that the last letter I wrote to a teacher was about algebra, and the issues that came up when my daughter and I discussed it. It didn't flame in this manner. But then again, algebra's the real stuff. So is social studies. Just not the fluff.

"Call me if you wish. I'll apologize, and you can set me straight if I have the story wrong. But it sure looks grim from here."

With one fell swoop, that letter wiped out all the satisfaction I felt about the *Living Art* project. I was shocked at its angry, sarcastic tone, thinking I must have done something dreadfully wrong to elicit such a scathing response from a parent. Sara happens to be one of my strongest students, and I thought we had a good relationship. After reading her father's letter, I completely reevaluated our relationship. Understandably, the letter also caused me to rethink the *Living Art* assignment and groupwork in general.

As an intern teacher, I lack the experience to have solid confidence in my ability to teach, choose materials, and create assignments. This attack destroyed what confidence I had. In its place, I had only questions.

With only a few months of training under my belt, who am I to decide what these students should learn? And how can I expect parents with at least 20 years more life experience than me to trust my ability to choose the curriculum for their children's social science education in their first, impressionable year of high school? Teachers have used traditional reading and writing methods of instruction for years; who am I to think that the use of visual and kinesthetic learning will be better? Is this parent right? Was the *Living Art* assignment merely an effort to entertain these MTV generation students? Were the thematic connections I sought manufactured in my mind to ease my own doubts about this unorthodox assignment?

I have since graded the unit test on the Renaissance and Reformation. As part of the test, students had been asked to write a short essay analyzing Raphael's *The School of Athens* and explaining how this particular painting epitomizes Renaissance art. The essays were wonderful. The students analyzed the technical aspects of this complicated work like college, rather than high school, freshmen. More importantly, almost all of the students were able to relate the painting to the larger, complex concepts of the Renaissance.

Should I be happy with this result or did they merely jump through the hoops I set up for them? Did they learn anything valuable? Sara's father made a point of recalling his own teacher's "hokey" assignment when his class was studying Peru. Yet some 30 years later, he still remembers that "hokey" assignment. Is this bad? Isn't the goal of education, at least to some degree, that students internalize and retain information? Isn't that what happened for Sara's dad as a result of the Peru assignment? As a teacher, I would be delighted if some of my students actually remembered how to analyze Renaissance art 30 years from now as a result of my *Living Art* project.

I suppose that I should take solace in the fact that *all* of my students were actively involved in the project with no prodding from me. I received quality test essays, even from those who usually have problems on traditional assessments. I am satisfied with the value of kinesthetic assignments and will incorporate them in the future. These outcomes seem to corroborate arguments that multiple ability tasks reach more students than those that fit the verbal learning style category. However, they do not at all satisfy the *parent* who is a verbal learner.

Yet questions still float in my head for which I have no answers. I know that throughout her career, a teacher is bound to encounter some resistance to her teaching methods, but I never envisioned it happening during my intern year. I also know people aren't going to treat me with kid gloves just because I'm new at this and my ego is fragile — nor should they. But the fact remains that I am afraid to assign multiple ability groupwork tasks again. Truthfully, I am nervous about exploiting students' kinesthetic, visual, and auditory learning skills and styles. The bottom line is that I was not prepared to face such an ardent challenge to my teaching philosophy so early in its development. Whether it warrants such reflection or not, the letter from Sara's father has caused me to question the very foundation of my teaching philosophy.

I composed a brief letter in response to this disgruntled parent, trying to be as professional as possible. (My letter had to be approved by my cooperating teacher and the department chair before I sent it out.) I felt no responsibility to justify my actions to this man. Moreover, I felt an attempt at justification would only give credence to his accusations. I believe any constructive criticism his letter may have contained was lost in its malicious and unprofessional tone. I believe my own response proved two points: that I am a true professional and that I stick to my choice of curriculum and assignments despite adversity. I wrote:

"Dear Mr. M,

"I received your letter on Friday of last week. It is unfortunate that we share different opinions on the instruction of Italian Renaissance ideas and values through art. However, I appreciate your effort in airing your questions and criticisms. While it is never easy to accept criticism, as a teacher I am encouraged by any parent who takes an active interest in the education of his or her child.

"I maintained definite goals and clear reasons for choosing to assign the art project, many of which are supported by pedagogical theory and research. However, a letter is not the proper format in which curriculum and instruction ought to be discussed. If you are concerned or interested, please feel free to contact me again through the history department. I would be happy to continue the dialogue."

If nothing else, writing this letter was therapeutic for me. I doubt it appeased Sara's father — and I'm not sure that I care. I got what I needed, a sense of closure on the experience.

Case 15

WALKING THE TALK: COOPERATIVE LEARNING FOR TEACHERS

As part of my training in a new collaborative mathematics project, I attend monthly inservice sessions where experienced teachers instruct us on how to teach each unit. The teachers model the activities and we neophytes act as students, experiencing what the students will go through as they do various activities.

In the training, we are seated in groups of four and given the activities and manipulatives needed to complete each activity. It is assumed that because we are adults, we know how to make our group productive and harmonious and that we don't need roles or group skillbuilders to help us function as a group.

I'm beginning to have doubts about the teachers who are training us in this wonderful new collaborative curriculum. It's assumed that adults can function in groups since they are mature, understanding, and experienced. But, the following case presents a situation where they are not. How can these teachers fix status problems in their classrooms when they can't fix them in their own groups? What is being done to train these teachers to see their own problems, which in turn can help them see problems in their classrooms?

Even though I was a young student teacher at the time this case took place, I knew that both students and adults need to be taught the necessary behaviors, attitudes, and rules for collaborative groupwork. I was simultaneously taking a collaborative groupwork class at Stanford University, where we discussed strategies and status problems. The discussions tested my ability to apply strategies to the status problems that occurred at my inservice training.

I was grouped with three teachers: two were white males from a local high school and the third was an African American female from another high school. I'd worked with all three in past sessions and knew them pretty well. Jerry is a department head, and he is mathematically powerful. He really knows his math and lets everyone know that fact. He is a bit stuffy and aloof and likes to work alone rather than cooperatively. Bob is Jerry's foil; his knowledge of mathematics doesn't seem to come close to Jerry's. Nonetheless, Bob is friendly and has a good rapport with everyone at the inservice. Dotty teaches math, but won't teach our particular project until next year. Like Bob, Dotty does not seem to know the mathematics that is going on in the units. When I work in groups with her, she doesn't contribute a lot of quality to the discussion or activities; she is just there. So I feel like I'm getting taken for a ride — it's the so called "sucker effect."

At the inservice sessions, the teachers usually give us an outline of the unit which details what mathematical concepts are being taught. This time, they turned the tables on us and gave us the task of making the outline ourselves. But the task had a bit of a twist; instead of going through the unit and outlining it, we were assigned to search out the activities and homework assignments that pertained to the concept of similarity in triangles. These activities and homework assignments consisted of two groups: one addressed the *students' intuition and prior knowledge of what makes triangles similar* and the second stressed the *mathematical manipulation of equations dealing with ratios and similar triangles*. For the entire morning, we were to find these activities and homework assignments and place them in their proper group. Then, we were to discuss how these activities would engage the students in building an understanding of similar triangles. After lunch, we were to present our findings to the entire class.

With our task in mind, my group decided to leaf through our teacher's manuals individually to find the activities and homework assignments in question. Later, we would get together to see how we agreed and discuss how these assignments would engage the students and build their understanding. So, with that strategy in mind, we individually searched for the appropriate activities in our teacher's manuals.

Jerry demanded quiet so his line of thinking would not be broken. Bob read and asked me for help, then read some more and talked some more. Dotty went page by page and started to outline selected parts of the unit.

When we got together as a group to see if we agreed on which activities were for intuition and which were for manipulation, we didn't get off to the best possible start. Jerry said he needed more time. Bob said he had a general idea of which activities were for intuition and which were for manipulation, but he really hadn't thought about how they engaged the students. Dotty produced a massive outline of some of the activities for the unit, but did not identify which ones worked students' intuition and knowledge of similarity and which exercised mathematical manipulation. Her outline detailed what the assignments were and what they stressed, but she failed to group them as assigned. I had an idea of where the mini-unit on similarity started and ended and where there was a transition from intuition to mathematical manipulation of ratios, so I was OK. The inservice leaders checked our progress and looked at our individual products. They asked us to meld our work together for our group presentation.

During our next stage, the discussion of how the assignments would engage students and build understanding, Dotty got the impression her outline was not valuable to us. She felt we dismissed her piece as not pertinent to our task and a waste of time. Although we did not say outright that her work was a waste of time, I think she got that impression through our body language and by our focusing on our work. Dotty began a tirade; she remarked that she thought she had done what was asked of the group, but now we were doing something totally different. She ended with the remark, "I just get the idea that everybody thinks I'm dumb. I know I ain't teaching this like you all are doing now, but I ain't that dumb." She put her outline away, reached into her book bag, took out a Book-of-the-Month Club romance novel and started to read. I tried to ask her what she thought was wrong with our group, but Jerry patted me on the arm and put his fingers to his lips to get me to not try to talk to her. I guess he just wanted us to let her be.

Dotty went away to cool off. The rest of us tried to get back on task because time was running out. Lunch was nearing and we had to get our presentation ready for after lunch. We didn't even try to discuss what got Dotty so ticked off. Instead, we acted like nothing big had happened. When Dotty got back, Bob asked if we had made her mad. She said we had, and Bob tried to comfort her by saying that

he too feels dumb at our inservice sessions. I wanted to intervene and say that we weren't trying to make anyone feel dumb, that we were all there to help. But before I could say anything, Jerry started urging us to complete the task. I wanted to fix the problem before anything else big would explode in our faces, but Jerry just wanted to get the project done.

We finished the project, but we looked awful. Dotty presented her outline, which did not answer the central question of how we were to engage students. Bob stumbled his way through an explanation of how the activities worked off the students' intuition. Jerry presented a very articulate discussion of the mathematical approach to similarity, and I bulled my way through the algebra of proportion, ratio, and similarity. We seemed like four parts rather than a group, and you could tell we were really disjointed. We did not produce a coherent effort.

Even with adults, there are status problems. Jerry feels he is of high status and so do the rest of the teachers due to the mathematical skill and knowledge he has shown during our inservices. Bob works with Jerry and feels inferior to him and the rest of the class. Bob feels he is not a 100 percent math teacher since he splits his efforts between teaching math and coaching sports. Dotty feels out of the loop because she doesn't teach the curriculum yet, and can't relate to our experiences and feelings about it. I see myself as competent and, due to my classes at Stanford, a step ahead of my colleagues when it comes to making groupwork work. I don't think any of them have taken classes or attended training sessions on cooperative learning. I don't feel as mathematically powerful as Jerry, but I feel that my experience and knowledge about groupwork puts me on an even keel with him.

What would I have done differently to treat the status problems in this group? The first step would have been to communicate to each other our thoughts and feelings on how we felt about our group's interactions. Even though discussing it would have taken time away from our task, I think it would have been valuable for us as professionals to talk it out. By not talking, I felt that the problem was unresolved and could have grown into a bigger problem. I myself deferred to Jerry's higher status in the group and failed to intervene. In retrospect, I would exercise my right as a group member to fix the problem rather than sweep it under the rug, hoping it would not creep out from underneath. By not intervening, I too was a victim of the status problems that existed in my group.

I wanted to treat the status problem in our group but I didn't. Why didn't I try? Was it because I was the youngest one in the group and thought my inexperience would not do any good? Was it because as the class clown I thought nothing I said or did would be taken seriously? Was it because the group's notion that a problem will go away if you leave it alone overpowers my idea that you need to treat the problem before it grows into a cancer?

I was really disappointed that adults who train young students on the benefits of groupwork couldn't function as group members in a training session. We are in charge of treating status problems in the classroom, and we can't even fix our own. Intervening and trying to treat the problem was seen by Jerry as exacerbating it. When he prevented me from trying to fix the problem, he gave me the impression that if we didn't do anything, it would magically disappear. I wonder what Jerry does in his class when these types of problems crop up. Does he tell the students to be quiet and that the problem will go away if you don't talk about it or confront it?

The curriculum leaders for this project need to be aware that we are not perfect teachers and we have problems treating status levels in our classrooms. I have told them that they have to teach us how to use

cooperative groups and that this skill doesn't come naturally for us, or for the kids. I hope the summer training session I'll be going to will confront the subject of cooperative learning in the classroom. This will make us more aware of what is going on in our classrooms, and even more, in our own groups during training sessions.

CHAPTER III:
ONE TEACHER'S ODYSSEY

Case 16

WE'RE ALL IN THIS TOGETHER

Christi probably wants to be a teacher when she grows up. I can tell by the way she enjoys having authority, organizing others, being the expert. I see a lot of myself in her. Yet suddenly this child who had never given me any problems is throwing tantrums and creating turmoil.

What is happening to Christi?

* * * * *

For years I had used cooperative learning in my 7th grade core class, a combined language arts and social studies program. Groupwork was useful at times when I needed some distance, but mostly I used it because it was the trend and it added variety to my teaching repertoire. I didn't think much about whether groupwork might actually help kids learn better. I thought the social interaction was good for them and that the change of pace would be OK for the academics too. But in truth, I believed that all of their real learning in my class had to be filtered through me.

What I really enjoyed about being a teacher was my own interaction with the kids. I liked getting to know them individually and watching their personalities emerge and develop as they encountered new challenges and ideas. What was most important to me was the kind of bonding that occurred as we moved through the year developing trust, and openness, and love....yet still getting on with the business of learning something about the curriculum.

Although groupwork was never a really high priority for me, whenever I did use it, I wanted it to go well. Most often, I was disappointed. Much of what I had kids do in groups could just as easily and more efficiently be done independently, so one or two students were always taking over the group while the rest coasted.

My attempt to fix this problem resulted in larger tasks, with assignments so detailed and lengthy that one or two students couldn't possibly complete them alone. This kept everybody busy during class and, at first, I was pleased with the way they divided up the labor. But some groups fell apart under the sheer weight of the workload and, in others, I noticed that nearly every day the same students said, "That's OK, I'll take it home and finish it." Christi was always one of those students, and when presentation time came it was usually Christi who had the most to say.

In terms of real cooperative learning, I was beginning to think that groupwork was just one more great idea that never quite worked. But because I thought the development of social skills was important I kept looking for a way to make it better. Eventually I became involved with Complex Instruction.¹

¹ Complex Instruction, developed at Stanford University, is a groupwork model that emphasizes the development of higher-order thinking skills in heterogeneous classrooms. It addresses issues of status that arise in small groups.

Learning about multiple intellectual abilities redefined my ideas about the nature of group tasks and gave me a new curriculum that engaged students in exciting ways. It required everyone in the group to pool their resources in order to investigate difficult primary source evidence and to present their findings in creative, engaging ways. These problem-solving tasks were designed to be multidimensional and open ended so that no one could successfully complete them alone. This increasing interdependence seemed to pull the rug right out from under Christi's sense of security.

The first of the new activities was an introductory unit on poetry. Christi, Roberto, LaToya, and Raymond were studying sound and rhythm in poetry. After looking at a painting by Breughel and reading William Carlos Williams's poem "The Dance," they were to discuss the sense of motion in the poem and how it was created. Then they were to choose from several other pictures and create their own lines of poetry, bringing out the sounds and rhythm of the activities in the one they chose.

Christi and Raymond were locked in serious argument over which picture to choose. LaToya preferred a third picture and seemed willing to negotiate. Roberto pushed back his desk and shrugged his shoulders. Heated words and hard feelings abounded. I intervened with some conflict resolution strategies and a compromise was reached. But it wasn't long until they were at it again.

"You can't just sit there," Christi commanded Roberto. "You have to tell us which one you want. Ms. Knight says we all have to discuss and you've gotta say which one you want!"

Roberto just smiled and shrugged. It was not the shrug of ignorance or even indifference. It was meant to placate, to go along, to give way. It is the only comment Roberto ever makes. He entered this class at the beginning of second quarter from the bilingual core class after his bilingual teacher said his English skills were good enough for him to be in regular classes. Roberto certainly has some problems with reading and writing at grade level, but his general comprehension is pretty good, she said. Yet Roberto has done no work in six weeks and is failing in both English and social studies. He smiles and shrugs often, but his gray eyes are lively and he watches everything. Sometimes he can barely suppress his interest.

Now Roberto is under attack. Jimmy and LaToya are tired of sparring with Christi and all three of them have joined in haranguing Roberto for not participating. They have picked up the lingo pretty well:

"Everybody has to participate."

"None of us are as smart as all of us together."

"If we don't all contribute then we can't really do a good job."

"Come on, Roberto, you have to talk about this with us."

"Ms. Knight, Roberto won't participate!"

They've forgotten about their own differences and focused their collective frustration onto Roberto. The task is difficult and uncertain; there is no single clear right answer; they're not sure what to do or how; and, time is getting shorter and shorter. It must be somebody's fault. Raymond, LaToya, and Christi are all B students, so they figure it can't be their fault. It must be Roberto! For Christi the situation is

especially painful. She is out of her seat, fidgety with anxiety and frustration. She slaps her desk for emphasis.

I join the group. Having already overheard some of the complaints from a distance, I deliberately turn to Roberto, asking, "What seems to be the problem?"

"Ms. Knight, he won't do anything," Christi intrudes. "He won't say anything. He just sits there." I hear the rising whine in her voice and then the sob. "And you say that the group is responsible for everyone participating. So now we're all gonna get a bad grade and...."

Now there are tears and Jimmy and LaToya are nodding and I'm wondering myself if this is worth it and why should good students have to put up with this. This just looks like more of the same old thing and I want to yell at them all.

But I'm aware that around the room most of the other groups are productively engaged. So, calming myself first, I say, "What do you think about this, Roberto?"

He shrugs and looks down at his hands as they fiddle with his pencil. There are no smiles now.

"Do you understand why they are upset with you?" I ask. He nods. "Tell me why you think they're upset with you," I say.

He shrugs. I wait.

Christi starts to speak. I put my hand on her arm.

We all wait.

Then it comes. Haltingly, softly, in lightly accented, clear English, "They say I don't talk enough."

"Do you think that's true?"

A shrug, then a nod yes.

"It sounds like your group really needs you and really wants your ideas. What would make it easier for you to talk more in your group?"

A very long pause. "If they don't yell."

I turn to the other three. "OK, how about if you agree not to yell anymore and to give Roberto some time to answer," I suggest. "Then you really try to listen to him." Christi is still sullen and anxious but they all three nod.

"And what are you going to do, Roberto?" I ask.

He looks up with that familiar smile. "Talk more," he says.

After all that trauma, Christi and Roberto's group really doesn't have time to finish the project, and when presentations come they don't have much to show or tell. I talk with them and the class about what happened in their group and about their breakthrough. But at the same time, I worry about using two class periods with so little to show for them.

Other groups are more successful. Lori and Leo's group read Gwendolyn Brook's poem "We Real Cool" aloud and then perform their own composition — a rap about war — complete with all the elements of pattern and repetition that they've investigated in their activity. I am surprised and impressed.

We don't work in groups every day, and by the time we get back to the poetry activities a few days later, I have pretty much forgotten about the incident in Christi's group. But eventually I become aware that there have been no outbursts from that corner of the room. Instead, there's that definite hum of on-task conversation. I saunter over to observe.

"How's it going?" I ask.

They hardly pause but there are nods and hums of response.

"Everybody participating?" I know I should leave them alone, but I press for more.

"How's it going for you today, Roberto?"

I am rewarded with a smile and a nod. "It's good," he says.

I was confident that this group's serious problems were resolved, and I was comfortable with the progress of the other groups as well. They were all beginning to buzz along more productively, but still testing me occasionally to see if they really did have the authority to make their own decisions.

They wanted to do well. No one wanted to get up in front of the class and look like a fool. They were catching on, and the changes in some of the students were surprising.

Roberto was one who had made much improvement. He spoke up more frequently, and, as I pointed out the value of his contributions, others in the class began to take his opinions more seriously. He was by no means a great student, but he was no longer failing.

Roberto's progress was especially noticeable when Miguel returned after four months in Mexico. At the time the two boys had come into the class together from bilingual core, Miguel had been an eager student who chided Roberto for his bad grades. Now Miguel was completely lost and Roberto was his instructor. As Roberto taught Miguel the group process, I heard him say, "You gotta talk. Everybody gotta participate or your group don't do so good."

Of course there remained all the other regular classwork to do in language arts and social studies; we still explored each unit through a variety of methods, most of them fairly traditional. We read textbooks and saw videos. I gave short lectures and my students took notes. We worked on vocabulary, maps and timelines, usually spending two or three weeks building a general background for a particular period of history. Then, as a culminating project, we'd do one of these very intensive Complex Instruction investigations. These were always centered around a major concept that was significant to the specific era that we were studying and had broader, even contemporary, connections as well. In one case it was

"How Do Historians Know about the Crusades?" The primary sources used visuals, music, and graphics to investigate and the tempting projects included raps, models, skits, and murals.

As we alternated between whole-class direct instruction, individual seatwork, pairs and groups, my students became very proficient at moving their desks and reconfiguring the room with a minimum of fuss. They worked in groups for some kind of activity nearly every day, sometimes for reading discussion or writing groups, other times for social studies investigations or reviews. Sometimes I carefully composed each group. Occasionally I allowed students to form their own. Most of the time I assigned groups randomly, changing them with each unit and rotating the roles with each activity. As the students gained confidence in the process and accepted more of the responsibility, the quality of their work steadily improved.

I was happy with this progress, but as I saw students assuming new roles in their own learning process, I also saw my own role changing. I no longer felt that I was at the center of this ever-changing classroom.

For the third unit, Christi and Roberto ended up in the same group again, and one day their lively discussion caught my attention. They were trying to design an ad campaign for the Children's Crusade and struggling with the constraints of an illiterate populace. Roberto had some very strong opinions about what would work for people who couldn't read the poster; he became very animated about using color and drawings, not just as decoration, but to convey meaning. Christi and Maria thought drawings would be too hard to figure out; they wanted more written explanation. For his part, Kevin was trying hard to satisfy everybody.

After some discussion, Christi became agitated and was clearly fighting hard to control herself. Maria explained why she and Christi were upset. "We had it all planned out and now they want to go and mess it up with all this other stuff," she said. Christi seemed to calm down when Kevin suggested several possible compromises.

As I moved away, Roberto caught my eye and said, "Before, my group complained when I didn't talk and now they complain when I do." But his mouth and eyes were smiling as he turned quickly back to his group to press his point one more time.

Theirs was a healthy debate, so I left them to work it out for themselves.

Of course, problems still arose, and many times they centered on Christi. No matter who else was in the group, it rarely went smoothly with her in it.

I had a lot of contact with Christi outside of the core class. She was in the leadership class and student government, both of which I advised. At this time, she happened to be in charge of decorating for the Valentine's Dance. In preparation for the dance, committees had been making what seemed to be thousands of hearts in all sizes. At 3:00 in the afternoon, 25 to 30 kids began stringing hearts around the multi-purpose room, ostensibly under Christi's command. I was called upon repeatedly to settle artistic disputes. At 3:30, individuals began to drift away, and by 4:30, only a handful of girls remained working. But there was Christi, up on a ladder, working her way around the room, creating a fantastic mural of pink, red, and white hearts. She finally finished at 6:45, and it was beautiful. At 7:00 we opened the doors and the dance began.

The praise was lavish and genuine. Christi took it graciously, saying, "Everybody helped. I just finished putting them up."

On the way home I thought a lot about committees and groupwork, about individuals and initiative. I thought a lot about Christi's problems with groupwork, and I thought a lot about my own.

As the class increasingly internalized the group process, Christi's problems became more extreme. The less I was needed elsewhere, the more time I spent rescuing whichever group she happened to be in. Often we spent more time on conflict management strategies than we spent on the curriculum. Sometimes the situation was explosive. Christi would shout, stomp her foot, sulk, and cry. I was less and less able to reason with her and, increasingly, I began to remove her from the group. I would make her take a time-out in the hall or sit at a desk away from the group until she was willing to go back and make peace. Then the group had to be willing to have her back. They always said yes and were usually gracious about it. Christi was usually able to work harmoniously once she returned.

Some other students frequently had problems too — Eddy, for example. One of the most popular boys in school, he was cute, athletic, and physically mature. But academically, he was insecure and anxious, usually doing just enough to pass and often announcing that he could have gotten better grades if he'd wanted to. Eddy hated groupwork, and as with Christi's groups, his frequently erupted in argument, accusation, and blame. I couldn't find the key to helping him feel more confident. Eventually, other students became reluctant to have either Christi or Eddy in their group.

Eric's situation was a little different. Passive and withdrawn, he generally avoided everyone except his one friend, Jimmy. It took me a long while to realize that Eric was quite bright. Once I did, I began to try to create more opportunities within his groups for him to use his abilities. I was determined that what had worked with Roberto would also work with Eric. I stepped in whenever I saw an opportunity to praise his contributions, telling the rest of the group to listen to Eric. He seemed to make progress. Whenever he caught me watching him he became an animated participant in his group, usually making some significant contribution. Convinced that he was getting hooked, I continued to praise him. I often put Jimmy in his group to lend encouragement and support.

Then one day, when I acknowledged something Eric had said that was pertinent to the task, Tran Pham, a girl who worked well with everyone, spoke up in exasperation.

"Ms. Knight," she said, "he sits there and knows things but he'll never help us or tell us until you come along. He won't say anything until he sees you watching or you come over here — even when we ask him and ask him!"

Initially I felt betrayed, and I resolved to leave Eric to the mercies of the group. I was both angry and confused, again questioning what my role here was supposed to be. Sometimes it felt as if the class had moved on and left me behind.

There were less obvious successes and failures, too.

Desiree, a large quiet girl who was often absent, had always seemed self-conscious and shy, so it was a real surprise to everyone when she performed so well in her group's skit. Though her body remained stiff and wooden, her voice and facial expressions made the show. She dismissed her success by saying that she didn't like to do it, but had to for the group. But people started wanting her in their group,

asking her opinion about skits and about other things, too. Though Desiree still had a lot of absences, she always came to school when she knew we were doing groupwork.

Leo had quite a reputation as a tough kid in school, one who had even beaten up some 8th graders. A few kids in class feared him, while others courted his protection. I knew Leo's family was from Samoa and suspected that he had some language difficulties. Although he never made trouble in class, he did not pay attention or know what was going on. He maintained an air of indifference, never turning in any work. Although we all knew he could draw, no one suspected that Leo was also musical. After that first poetry project with the rap, it became apparent that Leo could make an instrument out of almost anything and easily put a beat to any words someone else might write. Working in the group, he seemed to understand more of the subtleties of language in the songs and poems, and he helped others understand the rhythm and pattern. With these small successes, Leo's tough facade started to fade and he began to show interest in other aspects of classwork.

Cyndi was failing in all her classes. Her home life was a mess and was mirrored in her disorganized binder and her confused and scattered responses to everything. She never seemed to know which class she was in or what she was supposed to be doing there, but she had an incredible eye for visual detail. During her group projects, she made very precise observations and added the touches that finished things off just perfectly. The class continued to regard Cyndi as more than a little weird, but they listened to what she had to say and carefully considered her suggestions. In turn, she made a real effort to tune-in to what was going on. At the end-of-the-year social studies test, the only questions she answered were those on material covered through groupwork.

None of these kids became A+ students. There were no overnight successes, no instant turn-arounds, no sudden stars. But among this handful of students for whom academic success had been so elusive, I witnessed small increments of increased interest and involvement. In spite of the problems groupwork highlighted for some students and the questions it raised for me about my role, I became convinced that groupwork had to become a central part of my classroom rather than a peripheral activity.

When it came time to study medieval Japan, Christi, Eddy, and Roberto were teamed up again. The activities required each group to investigate some aspect of social stratification in medieval Japanese society. This particular group was to design and build a Japanese castle town, showing the ways in which even the design of the castle and the layout of the town reflected considerations of rank and power.

Eddy immediately took command and Christi eagerly became second lieutenant, completely excluding Roberto. He wasn't even allowed to pick up the materials. Eddy did the building and grunted out orders: "Where's the tape? Get me something to put here. Find the scissors." Christi fetched whatever he called for and then stood silently beside Eddy, handing him whatever was needed. There was no discussion, no investigation — just single minded concentration on completing the product as quickly and painlessly as possible. Roberto tried to make some valuable suggestions about some of the castle details but was ignored. Their castle ended up looking more European than Japanese, and they had done nothing about the surrounding town. In the end, I noted that some of the missing details were ones that Roberto had tried to suggest. I said discussion might have resulted in their inclusion of more of those possibilities.

Eddy was outraged, crying, "You never like anything I do!"

Christi just seemed sad and resigned.

A few weeks later a similar situation arose; Jonathan and Christi got into a terrible argument that included tears and tantrums. But by now so many others in the class had begun to enjoy the group activities that it was clear to me that Christi was way out of line. I removed her for a time-out, making no attempt to mediate, and I began to wonder if I had not been contributing to her problem by giving it so much attention. Maybe my interventions had only fueled the situation, reinforcing both Christi's and my need to be at center stage, to be in charge.

It was a startling and painful consideration, made more so by what was going on in another group. I was aware that LaToya, Jimmy, Desiree, and Leo had been very busy bustling about the room collecting additional resource books, looking, discussing, arguing productively, pointing things out, working on their poster. I couldn't figure out what exactly was going on, but I could tell that some small dispute had at least temporarily stalled their progress. I couldn't resist intruding.

"Is there a problem?" I asked.

"Oh, no. We're OK, Ms. Knight," said one member. The rest barely paused to acknowledge me.

But I couldn't leave it alone. Opened in front of them were a couple of different dictionaries, a thesaurus, and several encyclopedias. Curious, I asked what they were looking for.

LaToya paused for a moment as the others continued. "We're trying to find out for sure what a Papal Bull is," she said. "We think we know but want to be sure."

"We've found papal and pope and bull but not Papal Bull," Jimmy added. "We're trying to put it together so it makes sense."

"That's a pretty difficult and specialized term," I commented. Then, almost plaintively, I said, "Why didn't you just ask me?"

With more understanding and sense than I had exhibited, LaToya replied, "Because we knew you'd just tell us that together we were smart enough to figure it out for ourselves."

On the very last day of groupwork, about two weeks before the end of school, I had to remove Christi from her group for the final time. They had been preparing a skit and she was being extremely obstinate. I had her sit on a chair near my desk. Sometime later, when she said she was ready to go back to her group, I said, "No, Christi. Sometimes you just can't go back and pick up where you left off. Your group has gone on without you and they are ready to present to the class. This time, all you can do is watch."

I know she understood. But tears filled her eyes and she put her head down on the desk and silently sobbed. A little while later, when her group did their presentation, her whole body showed how she longed to be part of their fun, yet she joined the rest of the class in enthusiastic applause. There were still tears in her eyes, and as I watched her, there were tears in mine too. I felt both exhilarated and sad. Whatever had happened to Christi had happened to me as well.

APPENDIX A:
ANNOTATED BIBLIOGRAPHY

AN ANNOTATED BIBLIOGRAPHY ON GROUPWORK

GENERAL INFORMATION AND RESOURCES

Brandt, Ronald (Ed.). (1991). *Readings from educational leadership: Cooperative learning and the collaborative school.* Alexandria, VA: The Association for Supervision and Curriculum Development (ASCD).

This volume is a collection of articles on cooperative learning and collaborative schools drawn from *Educational Leadership* between 1987 and 1991. The articles are practical and easy to read and provide an excellent opportunity for newcomers and skilled groupwork practitioners to both familiarize and deepen their understanding of cooperative learning concepts, research, and strategies. Included are general introductions to groupwork, descriptions of specific methods, suggestions for implementing activities, recommendations for staff development, documentation of research findings, discussion of controversial issues in the field, and strategies for designing collaborative school environments. Readers with practical interests will appreciate the numerous case studies and lesson plans illustrating cooperative planning and groupwork in action. **Note:** Those who subscribe to *Educational Leadership* may wish to refer directly to back issues on cooperative learning (volume 47, number 4) and collegial support (volume 45, number 3).

Sharan, Shlomo (Ed.). (1994). *Handbook of cooperative learning methods.* Westport, CT: Green Press.

This book presents a broad, thorough overview of cooperative learning, providing descriptions of groupwork methods and applications, as well as insights on implementation. Contributing authors include leaders in the cooperative learning field such as Robert Slavin, David and Roger Johnson, Elizabeth Cohen, Yael and Shlomo Sharan, Spencer Kagan, and Neil Davidson.

The first eight chapters describe the most well known and researched models of cooperative learning — Student Teams-Achievement Divisions (STAD), Team Assisted Individualization (TAD), Cooperative Integrated Reading and Composition (CIRC), Jigsaw, Learning Together, Structured Academic Controversy, Complex Instruction, Group Investigation, and Kagan's Structural Approach. Chapters 9-16 describe the application of a number of generic models of groupwork to specific academic disciplines, including literature and language arts, language development, science, mathematics, and computers. Also considered is the contribution of cooperative learning to psychological, cognitive, and metacognitive development and functioning in learning.

Sharan concludes with several chapters on the challenges of long-term implementation of cooperative learning. The need for building a sense of community within the school, expanding staff

development, fostering collaborative planning and collegial coaching, and creating congruence between the social organization of the classroom and the school are discussed. These chapters suggest there are a number of factors that must be considered carefully if cooperative learning is to be successfully implemented and maintained on a wide-scale, long-term basis.

International Association for the Study of Cooperation in Education. *Cooperative Learning Magazine.*

This quarterly magazine, published by the International Association for the Study of Cooperation in Education (IASCE), provides practical, easy-to-read information and strategies to educators interested in improving instructional effectiveness and learning through cooperative groupwork. Quarterly issues are generally thematic in nature, and include articles by leaders in the field, interviews with experienced groupwork practitioners, current research findings, lesson plans and tips from classroom teachers, suggestions for staff development, ideas for combining computers and cooperative learning, reviews of books and videos, and a calendar of upcoming events and trainings.

At least fourteen back issues can currently be ordered. Thematic topics include science, mathematics, language arts, social studies, critical thinking, assessment, staff development, higher education, and school community. IASCE also publishes a resource guide describing additional cooperative learning resources.

Cooperative Learning Magazine is a benefit for members of IASCE. For membership information and details on ordering back issues, readers may write to IASCE - *Cooperative Learning Magazine* at Box 1582, Santa Cruz, CA 95061-1582, or call (408) 426-7926.

MODELS OF COOPERATIVE LEARNING

Aronson, Elliott, et al. (1978). *The jigsaw classroom.* Beverly Hills, CA: Sage Publications.

Aronson describes the origins and procedural details of Jigsaw, a cooperative learning method that makes use of reconstituted work groups in the classroom. This approach to cooperative learning involves dividing an academic lesson among members of a heterogeneous home group. Each home group member joins an expert group to master materials associated with a specific dimension of the lesson's topic. Students then return to their home groups to teach teammates what they have learned. A benefit of this model is the positive interdependence created when students are required to specialize in subject matter and present it to others.

Aronson complements his description of Jigsaw and its history with sample curriculum and classroom activities. In addition, he provides suggestions for implementation, emphasizing the need to build cooperative social skills, transform the teacher's role to one of facilitator, and develop group leadership within each cooperative learning team.

Though this book is now out of print, it can be obtained in a number of university libraries. Summaries of Aronson's Jigsaw model also appear in several texts, including Shlomo Sharan's

Handbook of Cooperative Learning Methods and Spencer Kagan's *Cooperative Learning: Resources for Teachers*.

Cohen, Elizabeth G. (1994). *Designing groupwork: Strategies for the heterogeneous classroom* (2nd ed.). New York: Teachers College Press.

Cohen provides an excellent introduction to cooperative learning in the heterogeneous classroom. She begins by offering a general definition of groupwork and a rationale for including cooperative groupwork in one's instructional repertoire. Cohen cites research documenting the effectiveness of cooperative learning — specifically, the benefits of student-student interaction in learning. She describes practical strategies for preparing students for groupwork, how to plan cooperative tasks, how to evaluate cooperative learning experiences, and the role of the teacher in a cooperative classroom. Throughout the text are classroom scenarios and group activities illustrating key concepts. The appendices include practical evaluation tools and cooperative training exercises to prepare students for successful groupwork.

Throughout *Designing Groupwork*, Cohen focuses on three features central to successful cooperative learning experiences: delegating authority to students, creating positive interdependence, and promoting student-to-student interaction. In addition, she stresses the importance of treating status problems that commonly result in unequal participation and undesirable domination of learning groups by high status students. To combat this problem, Cohen introduces two treatments that, when used in combination, can equalize participation and alter expectations for competence of low status students during cooperative group activities.

Johnson, David W., & Johnson, Roger T. (1994). *Learning together and alone: Cooperative, competitive, and individualistic learning* (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

David and Roger Johnson discuss Learning Together, a conceptual model of cooperative learning that encompasses the entire school community. The Johnson's intent is to help educators create a collaborative school environment and combine cooperative, competitive, and individualistic learning into an overall instructional framework. They advocate the use of three effectively-structured groupwork strategies (formal, informal, and base groups), development of "appropriate" competitive and individualistic learning activities, establishment of cooperative classroom routines, and a shift in the organization of the school from a mass-production structure to a cooperative team-based structure.

The Johnsons explain how to structure an effective cooperative lesson, carefully defining and explaining five components they believe essential to successful cooperative learning experiences — positive interdependence, face-to-face interaction, individual accountability, social skills, and group processing. In addition, they provide practical guidelines for creating constructive learning activities — both competitive and individualistic. Also included is information on utilizing structured academic controversy, developing social skills, teaching conflict resolution, assessing groupwork experiences, creating opportunities to reflect on learning, and tips for dealing with at-risk and gifted students in cooperative learning environments.

Kagan, Spencer. (1992). *Cooperative learning: Resources for teachers* (2nd ed.). San Juan Capistrano, CA: Resources for Teachers.

Kagan provides an outline of his structural approach to cooperative learning, including an introduction to general cooperative theory and research; descriptions of numerous content-free procedures for encouraging groupwork; and practical charts, lesson designs, and reproducible handouts to make cooperative learning effective. Kagan's approach to groupwork centers on "structures" which he defines as ways of organizing interaction among individuals in the classroom. Structures relate to the "how" of instruction and can be combined flexibly with any subject matter to form infinite cooperative learning activities. He organizes instructional structures into six categories based on the learning objectives they best promote. These objectives are team building, class building, communication building, information exchange, mastery, and thinking skills. In addition, he offers methods for forming learning teams and useful strategies for managing the cooperative classroom.

The final chapters describe several complex lesson designs for mastery, task specialization, and group projects, and provide suggestions for developing a cooperative school environment. The book concludes with a list of cooperative learning resources.

Sharan, Shlomo, & Sharan, Yael. (1992). *Expanding cooperative learning through group investigation*. New York: Teachers College Press.

Yael and Shlomo Sharan explain Group Investigation, a cooperative learning strategy that combines student-student interaction and academic inquiry. The student is central to this groupwork model, taking an active part in selecting topics of study, establishing learning goals, planning and implementing tasks, presenting projects to the class, evaluating completed work, and reflecting on investigative learning experiences.

The Sharans preface their description of Group Investigation with a discussion of the theory underlying their method and an empirically sound argument for using group-structured academic inquiry in the classroom. They stress the importance of setting the stage for complex group inquiry by preparing students to work together in groups, to help each other, and to share materials, information, and ideas. Specifically, they recommend teachers purposely develop their students' discussion skills, cooperative planning abilities, and other social skills by utilizing skill building exercises, cooperative norms, behavior modeling, legitimization of interaction as a route to learning, and reflection time following learning experiences.

The background discussion complete, the Sharans outline six consecutive stages of group investigation, describing the steps involved in implementing each, and articulating both teacher and student roles at each level. The authors keep the practitioner in mind, offering numerous skill building exercises and lesson plans. An entire chapter is devoted to describing interesting and inspiring real life group investigation projects in a variety of subjects at several grade levels.

Slavin, Robert E. (1991). *Student team learning* (2nd ed.). Washington DC: National Education Association.

Slavin introduces several models of Student Team Learning — cooperative learning strategies involving a combination of direct instruction via teacher or text, team study, individual assessment, and team recognition. Slavin first provides detailed instructions for implementing Student Teams Achievement Divisions (STAD) and Teams-Games-Tournaments (TGT), two methods of cooperative learning that are appropriate for teaching basic skills with clearly defined objectives and single correct answers. Both methods may be used at any grade level with any subject, using teacher generated materials or curriculum developed by Slavin and his colleagues at Johns Hopkins. Next, Slavin outlines the procedural steps of Jigsaw II, his version of Aronson's original Jigsaw method. Finally, he describes Teams Accelerated Instruction (TAI) and Cooperative Integrated Reading and Composition (CIRC). Unlike STAD, TGT, and Jigsaw II, these models are content bound in math and language arts, respectively, and require special curriculum materials prepared at Johns Hopkins. In addition to providing procedural information, Slavin explains the three primary concepts of his student team approach to cooperative learning — team rewards, individual accountability, and equal opportunities for success. He also includes a section on troubleshooting common problems, including conflicts among group members, general misbehavior, excessive noise, absenteeism, and ineffective use of team study time.

COOPERATIVE LEARNING IN THE DISCIPLINES

Mathematics

Davidson, Neil (Ed.). (1990). *Cooperative learning in mathematics: A handbook for teachers*. Reading, MA: Addison-Wesley.

This text presents strategies for incorporating cooperative groupwork into mathematics instruction and learning. Most of the strategies may be used at the elementary, secondary, and post-secondary levels, and include methods appropriate for both mastering basic math facts and developing problem solving and mathematical reasoning abilities. Contributing authors present ideas and methods for structuring math-related cooperative groupwork, preparing students for cooperative math learning, managing the classroom, designing appropriate group tasks, and troubleshooting problems associated with cooperative learning. Specific methods discussed include Groups of Four, Complex Instruction (Finding Out/Descubrimiento), Learning Together, Real Maths, STAD, TGT, TAI, Jigsaw II, Small Group Lab Approach, and Small Group Discovery Method.

A common theme is evident in the models compiled by Davidson. Whether implicitly or explicitly, most authors suggest cooperative groupwork can facilitate achievement of the recently reformed goals of mathematics instruction. The contributors imply that math teaching and learning should move from rote memorization of technical symbols and mastery of computational skills toward math concepts, the development of problem solving competency, mathematical reasoning, and the ability to communicate mathematically. Additionally, they recommended that teachers help students value math and build "math confidence" by presenting the subject in meaningful, "real life" contexts, highlighting the connections between mathematics and other disciplines, and demonstrating that all students can learn math.

Throughout the text, cooperative groupwork is advocated as an instructional method congruent with these evolving goals. The contributing authors suggest that verbalizing and discussing mathematical thought processes during groupwork and being exposed to the thinking of others helps students clarify, develop, and expand their mathematical thinking over time. Among the expected results are enhanced academic performance and increased math-related esteem.

Social Studies

Stahl, Robert J. (Ed.). (1994). *Cooperative learning in social studies: A handbook for teachers*. New York: Addison-Wesley Publishing Company.

This collection of essays offers techniques for using cooperative learning within social studies classrooms. Robert Stahl introduces the book with an overview of cooperative learning, including a description of its central elements and an argument why groupwork is compatible with the achievement of highly valued social studies outcomes — human dignity, rational thinking, humane and civil behavior, and active and responsible citizenship. Stahl's introduction is followed by a chapter outlining generic tips for preparing for groupwork and managing it. Suggestions are provided for cultivating cooperative skills, forming learning teams, addressing status issues, and monitoring the natural stages of group development.

The core of the book is specific groupwork strategies for social studies. Seven common and well-researched models of cooperative learning are described — Learning Together, Jigsaw, STAD, TGT, Group Investigation, Co-op Co-op, and Kagan's structural approach. Several other methods are introduced, including a pro-con cooperative strategy, individual-group decision making episodes, and a group approach to traditional social studies research papers and reports. All chapters are practical, emphasizing the "how-to" of the techniques described. Many examples and scenarios, as well as cooperative checklists, forms, and tables are provided to help guide teachers to successfully use the strategies presented.

Science

International Association for the Study of Cooperation in Education. (1991, April). *Cooperative learning and science. Cooperative Learning Magazine, 11(3)*.

This issue of *Cooperative Learning* explores how collaborative groupwork can improve learning in science classrooms. Contributing authors promote a hands-on approach to science in which students together engage in experiential processes of science inquiry. Descriptions of five of the methods follow.

Teaming Up is a six-step process of skill-based science inquiry involving group investigation. **Life Lab Curriculum** employs a cooperative approach to science involving indoor and outdoor gardens and community involvement. **Cheche Konnen** is designed especially for language minority students and utilizes a collaborative, interdisciplinary approach to science. Students act as scientists, posing science questions and designing and implementing research projects to explore their questions.

Finding Out/Descubrimiento consists of an interactive, hands-on math and science curriculum that promotes conceptual learning and builds thinking skills for elementary school students. The curriculum is bilingual and utilizes the Complex Instruction approach to groupwork developed by Dr. Elizabeth Cohen. **Project AIMS** integrates science and math learning through cooperative activities consisting of real world experiences, oral and written communication, pictorial and graphic communication, and critical thinking.

Two articles address computer-based cooperative learning in science. Both authors suggest that computers can enhance groupwork and describe ways to utilize computers in the classroom (i.e., word processing for group writing, and databases to support cooperative inquiry). Mary Male discusses several software programs that promote group problem solving and mastery of science concepts and skills. Among the programs suggested are several produced by Sunburst and Wings for Learning, including *Learn about Animals*, *Learn about Plants*, *Learn about Insects*, *Animal Trackers*, *Exploring Tidepools*, *Voyage of the Mimi*, and *Playing with Science: Motion*.

Finally, several books are reviewed that are of value to science teachers interested in incorporating cooperative learning into their instructional repertoires — *The Growing Classroom: Garden-Based Science*, *Science Experiences: Cooperative Learning and Teaching of Science*, and *Teaming Up*.

Literature and Language Arts

International Association for the Study of Cooperation in Education. (1991, July). Co-op learning and language arts: Learning to communicate — communicating to learn. *Cooperative Learning Magazine*, 11(4).

This thematic issue of *Cooperative Learning* provides insight into how groupwork can be used to teach reading, writing, and other language arts concepts and skills. The majority of articles are written by classroom teachers and describe specific models of cooperative learning applied to language arts. Patrick Dias, for example, introduces an approach to teaching poetry through small group discussion. In this method, students work together to read and find meaning in poems with a minimum of interpretive support from the teacher. Marjorie Beggs discusses "Children's Own Stories," a method that encourages students to tell about their lives. They dictate personal or made-up stories to the teacher or a trained volunteer who records them verbatim. Stories are then shared and illustrated within cooperative groups. This particular approach helps language minority students develop fluency by verbalizing and reading personally familiar stories. Robert Slavin outlines a cooperative-based reading and language arts curriculum involving basal reading activities, direct instruction in reading comprehension, independent reading, and integrated language arts and writing. In this program, called Cooperative Integrated Reading and Composition (CIRC), students work with partners and in groups on activities including partner reading, spelling, story retelling, group writing, and reading comprehension. Other models presented include a cooperative learning and literature planning model, partner exchange journals, and writing clubs.

An article by Mary Male describes how to design and plan computer-based cooperative language arts activities. She outlines a step-by-step procedure for cooperative writing and suggests how to select word processing programs for group writing, schedule sequences of on- and off-computer activities,

and select literature to use to stimulate writing. In addition, Male recommends several software programs and publications to support the development of cooperative whole language curricula.

The issue ends with book reviews relevant to cooperative learning and language arts. Among the books reviewed are *Perspectives on Small Group Learning: Theory and Practice*; *Focus on Collaborative Learning: Classroom Practices in Teaching English*; *Literature and Cooperative Learning*; *The English Workshop Series*; *A Part to Play: Tips, Techniques, and Tools for Learning Cooperatively*; and *Celebrate Units: A Guide for Incorporating Whole Language and Cooperative Learning for All Classrooms*. Also included is a bibliography on whole language resources.

Language Development

Kessler, Carolyn (Ed.). (1992). *Cooperative language learning: A teacher's resource book*. Englewood Cliffs, NJ: Prentice Hall.

This compilation of essays addresses the application of cooperative methods to second language instruction and learning. While the emphasis is on teaching students with limited English proficiency, the concepts and strategies presented are equally applicable to teaching foreign languages.

The first section, "Foundations of Cooperative Learning," explains the process of cooperative learning and explores the beneficial effect of groupwork on overall academic achievement and language acquisition. Key elements of effective groupwork are described, including positive interdependence, individual accountability, social skill development, heterogeneous team formation, team building, and group size. In addition, several models of cooperative learning are introduced — Learning Together, Spencer Kagan's Structural Approach, and specific cooperative curriculum packages (i.e., Finding Out/Descubrimiento and CIRC). Throughout these chapters, authors advocate a communicative approach to language development and suggest that cooperative learning supports such an approach because of the opportunities to engage in authentic communication. Through cooperative interaction and thought, students learn verbal expression, as well as content-related concepts and skills.

Chapters 4-7, "Language and Content," examine cooperative learning in content-based language instruction. The focus is on how teachers can help students with limited English proficiency simultaneously develop language skills and subject matter knowledge in science, social studies, and math. In addition, the Jigsaw model of cooperative learning is introduced and promoted as a useful instructional strategy for integrating language and content.

The final four chapters focus on teachers in cooperative learning environments. Key elements of the teacher's role before, during, and after groupwork are described. Teacher talk in traditional and cooperative settings is compared, and the latter is shown to better support the communicative approach to language development. One chapter promotes the incorporation of cooperative learning into graduate programs for ESL and foreign language teachers. It is recommended that individuals in such programs learn *about* cooperative groupwork *via* groupwork to prepare them to use this strategy in their classrooms. Strategies for designing and implementing staff development programs to help existing teachers build competence in using cooperative learning are also provided.

The volume concludes with a bibliography that includes general resources on cooperative learning, ESL literature, and additional topics.

Computers

Male, Mary. (1994). Cooperative learning and computers. In Shlomo Sharan (Ed.), *Handbook of cooperative learning methods*. Westport, CT: Green Press.

In this brief article, Male challenges teachers to put computers to powerful use in their classrooms. Specifically, she encourages them to utilize computers to engage students in rich, collaborative learning experiences, rather than traditional drill and practice exercises. To support this suggestion, Male recommends educational software packages that encourage cooperative learning, and discusses essentials teachers should include when designing computer-based groupwork — heterogeneous groups, team building, social skills development, positive interdependence, individual accountability, and group processing. In addition, she describes four ways computers can be used within the classroom (group writing/word processing, problem solving, database generation and use, and academic review), providing a sample lesson plan for each suggested use.

COOPERATIVE LEARNING AND CRITICAL THINKING

Davidson, Neil, & Worsham, Tony (Eds.). (1992). *Enhancing thinking through cooperative learning*. New York: Teachers College Press.

The essays in this book connect two important trends in education — thinking improvement and cooperative learning. Contributing authors stress thought and metacognition in the overall learning process and, specifically, the importance of creating a genuine understanding of subject content. Cooperative learning is advocated as an effective approach for developing and reinforcing students' capacity to think and reflect individually and in groups. The chapters explain the beneficial effects of cooperative thought and interaction and offer practical information on how to build thinking skills through collaboration. Phases of learning, as well as indicators of intelligent behavior, are discussed and suggestions for using groupwork to enhance thinking at all levels are provided. Several practical strategies and tools for cooperative thought are described in detail, including group discussion methods, cooperative-based graphic organizers, and question generation techniques.

Several authors extend their thoughts beyond the classroom, suggesting that teaching cooperative thought in school is necessary to meet the need for cooperative problem solving in the workplace and within society in general.

COOPERATIVE LEARNING AND SOCIAL SKILLS

Johnson, David W., & Johnson, F. P. (1994). *Joining together: Group theory and group skills* (5th ed.). Englewood Cliffs, NJ: Prentice-Hall.

This book blends group theory and practical skill building exercises to help readers develop the cooperative competencies necessary for effective groupwork. The Johnson's premise is that simply placing individuals on teams will not ensure successful group experiences; cooperative skills need to be directly taught and learned. *Joining Together* is a tool to facilitate this process. Teachers can use the text to gain insight on working collaboratively with peers and preparing students for cooperative learning.

Chapters 1 and 2 present a theoretical overview of group dynamics and experiential learning and lay a foundation for the remaining chapters covering 10 cooperative skill areas: group goals and social interdependence, communication, leadership, decision making, academic controversy and creativity, conflict resolution, the use of power, dealing with diversity, leading discussion and counseling groups, and team building. Each chapter covers relevant theory and research and includes diagnostic and practice exercises and simulations designed to help readers develop and refine specific cooperative social skills.

COOPERATIVE LEARNING ASSESSMENT

International Association for the Study of Cooperation in Education. (1992, Fall). *Assessment in cooperative learning*. *Cooperative Learning Magazine*, 13(1).

This issue of *Cooperative Learning* focuses on assessment and evaluation in cooperative learning settings. Several themes emerge across the articles. First, there is consensus among the authors that the assessment and evaluation process should consider, at minimum, knowledge and skills acquired, as well as students' ability to work with others and respond effectively to problem situations. Authors suggest a variety of methods for assessing student academic and social progress, including ongoing teacher monitoring and feedback, self evaluation, peer evaluation, individual and group reflection and processing, exams, and a host of individual and group products including essays, books, videos, slide presentations, museum-like displays, skits, role plays, and oral reports. Most authors agree that students should be involved in establishing evaluation criteria and in evaluating their own and peers' work. However, they suggest that such involvement take place only after students are familiar with the process of cooperative learning and the concept of evaluation.

In addition to assessment methods, the authors comment on appropriate tasks for evaluating student behavior and quality of learning in cooperative groups. A primary concern is the need to provide all students with a fair chance to interact with teammates and demonstrate what they learn. To facilitate this, authors suggest that groupwork tasks be cooperatively structured (positive interdependence), have clearly defined learning outcomes, accommodate a variety of learning styles, allow students to reveal conceptual understanding and new skills in varied ways, and include status treatments to equalize interaction between high and low status students.

Two articles address the usefulness of cooperative learning in assessing the academic and affective development of students with limited English proficiency. Both authors assert that traditional methods of assessment (i.e., standardized tests) do not provide teachers with adequate information to determine knowledge gains or learning needs of ESL students, therefore hindering the customization of instruction for this group of students. Cooperative learning offers one potential solution to this assessment challenge. Because groupwork provides opportunities for student-student interaction and encourages verbalization of thinking, it can give teachers a view into students' minds as they construct knowledge. By observing students during cooperative activities, teachers can see how students use what they know, what they do and do not understand about the concepts being studied, and their levels of literacy and fluency in their first and second languages. Two models of

cooperative learning designed specifically for bilingual students are described — Finding Out/Descubrimiento (math and science) and CIRC (English and language arts).

Other topics of discussion include the use of computers in assessment and evaluation, authentic assessment in the cooperative classroom, development of self-monitoring cards to assist students in practicing and internalizing helping behaviors, and student assessment criteria for a range of evaluation procedures (traditional to radical).

COOPERATIVE LEARNING AND STAFF DEVELOPMENT

International Association for the Study of Cooperation in Education. (1991-1992, Winter). Staff development: Building communities of learners. *Cooperative Learning Magazine*, 12(2).

This issue of *Cooperative Learning* focuses on the need to reengineer staff development programs on cooperative learning. The call for "new and improved" training programs stems from the belief many teachers don't use cooperative learning to its potential due to a lack of adequate training and support. The articles in this issue describe effective cooperative learning training, as well as successful staff development strategies and programs related to cooperative groupwork. Contributing authors suggest that cooperative learning training must be ongoing, help teachers understand the theoretical concepts of group-based learning, and build competence in designing and implementing specific cooperative strategies. Moreover, they recommend that training interventions be experiential in nature — providing demonstrations of cooperative learning strategies and giving teachers opportunities to practice groupwork in the workshop setting. Two articles offer tips to staff developers for creating and leading workshops and institutes that will capture and hold teachers' attention.

Contributing authors also propose that quality cooperative learning workshops and institutes alone will not guarantee effective and sustained use of groupwork. Training, they say, must continue at the school site and involve ongoing practice, evaluation, and reflection. They suggest that teachers be encouraged to use cooperative learning in their classrooms and be given access to networks of support, regular evaluation, and coaching from peers, staff developers, and administrators. Collaborative lesson planning and reflection also are highly recommended.

Several articles describe successful staff development strategies and tools that teachers and schools can incorporate into their cooperative learning training programs. One such tool is a chart that

outlines levels of competence in implementing and using cooperative learning. Teachers can use this "innovation profile" to determine beginning, intermediate, and advanced levels of the practice of cooperative learning. They can then assess their current level of competence and set personal goals. Another strategy, termed "teachers as researchers," involves a team approach to reading cooperative learning literature, reflecting on personal experiences, and accumulating and analyzing data related to outcomes of cooperative learning in the classroom. Other strategies and tools described address principles of teamwork, key characteristics of leadership, and ideas for teaching groupwork as an instructional practice to preservice teachers.

APPENDIX B:
BIBLIOGRAPHY OF CASE-RELATED MATERIAL

BIBLIOGRAPHY OF CASE-RELATED MATERIALS

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APPENDIX C:
GUIDELINES FOR WRITING CASES

GROUPWORK IN DIVERSE CLASSROOMS: CASES AND COMMENTARIES

Edited by
Judith H. Shulman, Rachel A. Lotan and Jennifer A. Whitcomb

The proposed casebook provides a way of capturing veteran teachers' knowledge about groupwork in diverse classrooms. Though small group instruction has been practiced and studied for more than twenty years, seldom has the research literature addressed the craft knowledge teachers acquire through the messiness of classroom life. The cases in this book illustrate the dilemmas and challenges teachers face when using groupwork.

Cases are used in many professions, both to prepare novices for their new role and to make available and accessible a body of knowledge. Unlike law and medicine, teaching traditionally has not had a case literature. Educators have not had a mechanism to accumulate the wealth of knowledge that teachers possess. As a result, we leave no legacy for those who follow us.

The Far West Laboratory's Institute for Case Development addresses this situation. It's close-to-the-classroom series supports teachers who wish to contribute to the literature on teaching, currently dominated by researchers. Our first product, *The Mentor Teacher Casebook*, includes cases written by mentor teachers in the Los Angeles Unified School District (LAUSD) about their work with beginning teachers. That book accumulated a set of cases that can be passed on as a legacy to new mentors. The next casebook, *The Intern Teacher Casebook*, incorporates narratives written by beginning teachers in LAUSD that describe situations and problems that confront all novices during their early months of teaching. Both of these volumes are being used by LAUSD, other school districts, universities, and state departments of education around the country as tools for professional development with both new and experienced teachers. Our most recent casebook, *Teaching Diverse Students: Cases and Commentaries* (in press) is written by veteran teachers in California and Arizona who write about the challenges and dilemmas of teaching in diverse settings. Their cases are analyzed, contrasted and interpreted through commentaries by other educators.

The current project with Stanford University builds on the case literature from the previous volumes. Its aim is to help teachers meet the challenges of groupwork in their classrooms. We hope that these narratives with their accompanying layers of commentary will provide teacher educators and staff developers with the resources they need to spark discussion, to stimulate teacher thinking, and to enlarge teacher's repertoire of strategies for meeting the challenges of groupwork in diverse classrooms.

What do we mean by a Case?

A case is not merely a narrative or description of any particular event or series of events. Rather, we make a theoretical claim that it is a "case of something." For this book, contributors may select from nine possible topics, such as "complexities of teaching" or "delegating authority" (see below). Each case tells a story. It describes what led up to the event and the consequences that follow the event. To the extent possible, it also describes how the participants in the event were thinking and feeling.

Writing a Case

A compelling case for this volume should be built around a problem, a challenge, or a dilemma that may be common to many teachers. It's best to select a problem where your first attempt to deal with the problem didn't work. You tried to resolve it with several alternatives before succeeding or giving up. Try to think of a situation where questions can be raised about how best to approach a problem.

The best cases are written with some dramatic quality. The problems are written so that readers will identify immediately with the teacher who confronts the problem and will want to know what happened. Don't worry about the quality of your writing in the first draft. You will have opportunities to revise your case. Editing will also be done by Far West Laboratory before a case is published.

Structure of a case. First, describe your problem identifying who you—the author—are. Next, provide some context for your case (type of school, students, community). Then write as vivid an account as you can. Specifically indicate if/when the cultural or ethnic background of students had played an important part in your teaching intervention or practice. When appropriate, end your case with some unresolved questions.

In a second section, briefly reflect back on your narrative. If a similar situation should occur again, would you do anything differently? Why?

Length. Your case should be between two and four pages long. When in doubt, write more rather than less. It is always easier to delete information than add to it.

Commentary. Remember, your case will be commented on by other experienced educators. Try to describe your dilemma so that our commentators will have something substantive to discuss.

Topics to Consider

The proposed organizational framework for *Groupwork in Diverse Classrooms: Cases and Commentaries* is represented below. Please select one of the given topics for your case.

Curriculum and Instruction

- 1) Developing appropriate curriculum. One of the biggest challenges in making groupwork successful is creating activities to which all students can contribute and from which all students can learn. These cases should focus on the curriculum development for groupwork. Think of a specific lesson or unit that you developed or adapted that included groupwork. Describe what you intended to teach. What were your goals? What student performances did you seek relative to your goals? What kinds of groupwork did you plan to achieve these goals? How, if at all, did you tailor the activities to the individual differences, backgrounds, and abilities of your students? What resources did you use to plan? Then describe what happened when you taught the curriculum. How did the students respond? Did they display the kind of thinking you sought? Were there any surprises? As you think back on this lesson, would you make any changes?

- 2) Complexities of teaching. Teaching concepts and skills using groupwork is generally regarded as more complicated than traditional approaches. These cases should focus on the teaching strategies of successful groupwork. Think of a lesson or unit during which you used groupwork that didn't work very well. What had you planned to teach? What group activities did you plan? Then describe your instruction in detail. Did you do anything special to encourage contributions from the lower achievers in your classroom? What happened during the groupwork? How did you handle the situation? As you think about the lesson, what would you do differently?
- 3) Delegating authority. One of the assumptions of effective groupwork is the importance of giving students the responsibility for their own learning. Did you ever have a lesson or unit where you felt uncomfortable giving so much power to your students? What were the circumstances? Tell your story. Describe what the students said and did in detail. How did you handle the situation? Did you sense that your students might have felt uncomfortable or resistant to this new arrangement? Do you have any lingering questions about the redefinition of the traditional balance of power during these situations?
- 4) Evaluation/Accountability. Evaluating the way students work in groups and the products of groupwork raises many dilemmas. Think of a time when you developed an approach to evaluating a groupwork activity. How did you decide what criteria to use? Did you assign grades or points to individuals and/or to groups? What was your rationale? How did the students respond to your criteria? How did you know whether the students had learned the material? Do you continue to use this approach? If you have modified it, what changes have you made?

Interactions with Students

- 5) Uncooperative students. Do you have any individuals or groups of students who refuse to do work and are reluctant to participate in classroom activities? They either persistently act out or are withdrawn and apathetic towards school. As a result, they aren't successful academically. You try several approaches of integrating them into group activities, including, perhaps, designing special tasks that they could contribute to their group. But the students continue to cause problems. Or, your new strategies pay off. Tell your story.
- 6) Low status students. Can you think of a student who never or rarely participates in groupwork and whose contributions are neither solicited nor valued? Describe the student's behavior in detail during a specific group activity. How did you account for his or her lack of participation? How did the other students respond? What did you do? What effect did your action have on the student's contribution? How did the other students react to your intervention?
- 7) Individualists. Some students don't like to work in groups; they would much prefer to work on their own. Describe an event or series of events where a student or group of students refused to participate in the assigned group activity(ies). How did you handle the situation? How did the student(s) respond? How did the other students react? As you think about the situation, what may you do differently in the future?

Beyond the Classroom

- 8) Parent-teacher conflict. You are pleased with the way that groupwork has influenced student learning in your classroom. On average, they are doing well on tests; they turn in creative assignments; they are developing critical thinking skills; and they appear to be enjoying their activities. But a parent or group of parents disapprove of group activities for their children. Tell your story.

- 9) Administrative/collegial support. Teachers who use groupwork often feel the need for support from colleagues and administrators. Think of a time when you felt overwhelmed by the logistics and demands of implementing groupwork. Did you have colleagues with whom to share your successes, doubts, and frustrations? Did you fail to get resources such as appropriate space and furniture, hands-on materials, and time to prepare the activities and discuss your concerns with other teachers? How committed was your administrator to groupwork at your school? Tell your story. What impact did this support (or lack thereof) have on your teaching?

Far West

LABORATORY



FACILITATOR'S GUIDE

TO

GROUPWORK IN DIVERSE CLASSROOMS:

A CASEBOOK FOR EDUCATORS

NOVEMBER 30, 1995

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FACILITATOR'S GUIDE

TO

GROUPWORK IN DIVERSE CLASSROOMS:

A CASEBOOK FOR EDUCATORS

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This document is supported by federal funds from the U.S. Department of Education, Office of Educational Research and Improvement, contract number RP91-00-2006. Its contents do not necessarily reflect the views or policies of the Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the United States Government.

ACKNOWLEDGMENTS

Several people devoted considerable time and energy to this project. We are especially indebted to Far West Laboratory colleague, Nikola Filby, who was a member of the advisory board, participated in the field test, wrote two of the facilitator notes in this volume, and contributed her insights and wisdom in several critical meetings throughout the project.

Thanks also to our collaborators in the field test who spent several Saturdays participating in meetings at Stanford University; conducted case discussions at their sites, collected data, and provided invaluable input into the cases and discussion process. They include Joan Benton, California International Studies Program, Stanford University; Tuckie Yirchott, Bay Area Global Education Project, Stanford University; Joan Cunnings, Los Cerros Middle School, San Ramon School District; Janie Roskelley, Sally Scholl, and Pat Visher, Sycamore Valley Elementary School, San Ramon School District; Micaela Munoz and Donna Parrish, Tempe Elementary School District; Susan Schultz (who also contributed a case study), Menlo-Atherton High School, Sequoia Union School District; and Susana Mata, School of Education, Human Development and Educational Technology, California State University, Fresno.

We would also like to thank our administrative assistant, Rosemary De La Torre, who patiently kept us organized through several drafts of this text, and editor, Sally Ianiro, whose meticulous attention helped to make each sentence speak clearly.

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PART I:

INTRODUCTION

&

FACILITATING A CASE DISCUSSION

INTRODUCTION

This guide is a companion volume to *Groupwork in Diverse Classrooms: A Casebook for Educators*, which presents 16 cases designed to help individuals and groups analyze how to use groupwork effectively. Specifically, the guide offers the information needed to use these cases in structured professional development experiences.

Teacher-written cases, depicting real-life problems other teachers are likely to face, can be powerful tools for reflection on practice. They can help teachers anticipate problems and solutions as they learn from others' real-life stories. Read alone, they offer the vicarious experience of walking in another's shoes. But in group discussion they are especially powerful, enabling differing points of view to be aired and examined.

During the last decade, educators have viewed case-based teaching as one of the most promising ways to reform teacher education and staff development (Sykes & Bird, 1992; J. Shulman, 1992). Staff at Far West Laboratory have been active participants in this reform effort, developing casebooks, leading case discussions, conducting facilitator seminars, and coordinating national conferences. Our experience and research suggest case discussions can help participants bridge theory and practice, spot issues and frame problems in ambiguous situations, interpret situations from multiple perspectives, identify crucial decision points and possibilities for action, recognize potential risks and benefits inherent in any course of action, and identify and test teaching principles in real classroom situations. In short, cases and case discussions can help teachers develop flexibly powerful pedagogical understanding and judgment (L. Shulman, in press).

But we also know the pitfalls of poor discussions. It is possible, for example, to participate in an animated case discussion and not learn. In our consultations with faculty who were learning to use the cases in our diversity casebook (J. Shulman & Mesa-Bains, 1993), we discovered that participation in discussions confirmed, rather than diminished, some teachers' tendencies toward racial stereotyping (J. Shulman, in press).

Though many educators have written cogently about case discussions (see, for example, Christensen, Garvin & Sweet, 1991; Silverman, Welty & Lyon, 1992; Wassermann, 1994, 1995; Barnett, Goldenstein & Jackson, 1994; and Mesa-Bains & Shulman, 1994), this guide is directed specifically at enhancing analytic opportunities for the cases in the accompanying volume. Our experience suggests that the more a facilitator is knowledgeable about the issues in a case, and the more he or she is able to anticipate the variety of participant responses in a case discussion, the greater the likelihood learning will occur as a result of the discussion.

Ultimately, knowledge gained from cases can provide the inspiration and provocation to change teaching behaviors. Teachers typically lack the time and opportunity to reflect on their own and others' experience. In their day-to-day life in the classroom, they are usually confronted with a seamless

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by Judith Shulman, Rachel Lotan & Jennifer Whitcomb
Far West Laboratory (FINAL, 11/95)

continuum of experience from which they can think about individual kids as cases, or lessons as cases, but rarely do they coordinate the different dimensions into meaningful chunks (L. Shulman, in press).

Case methods thus become strategies for helping teachers to “chunk” their experience into units that can become the focus for reflective practice. They therefore can become the basis for individual teacher learning as well as a form within which communities of teachers, both local and extended, as members of visible and invisible colleges, can store, exchange and organize their experience.

THIS VOLUME

Though groupwork among heterogeneous students is recommended in most current reforms of teaching, we know that using it effectively is often complex and difficult to achieve. *Groupwork in Diverse Classrooms* addresses many of the typical dilemmas teachers face in their classrooms. Its teacher-authors describe in vivid detail their own successes and failures as they struggle with the complexities of teaching. Their compelling stories are excellent discussion catalysts, offering others the rare opportunity to analyze from a safe distance situations they, too, face. Cases present abstract issues in concrete terms which mirror teachers' own experiences. Case discussion can lead teachers to examine their views, prejudices, and attitudes toward typical dilemmas on groupwork in their classrooms and — as a result — begin to seek and use new teaching strategies.

Each case provides an opportunity to examine a number of issues as they occur in the real world of teaching — interwoven into complex dilemmas and situations. Table 1 provides easy reference for locating specific issues within each case and across cases. Issues addressed by the cases in this volume include:

- examining why and how to use groupwork effectively;
- designing group tasks that complement one another and demand contributions from all group members;
- developing appropriate assessments for group activities;
- analyzing the appropriate role of a teacher during group activities;
- exploring the purpose of student roles during group activities;
- exploring constructive teacher interventions during group process;
- crafting groups that support learning for all students;
- supporting students in cooperating and collaborating with one another;
- dealing with uncooperative individuals and groups of students;
- providing effective status interventions;
- exploring how to communicate with parents who may be critical of group projects; and
- examining professional development activities for adults.

Table 1: Overview of Issues Across Cases

Case No.	Groupwork Issues												Non-groupwork Issues				
	Purposes for groupwork	Design of groupwork tasks	Assessment	Role of the teacher	Constructive teacher intervention	Crafting groups	Use of student roles	Supporting cooperation and collaboration	Uncooperative students/group/class	Status problems	Status intervention	Communication with parents and other Ts	Groupwork in professional development	Limited English Learners	Complex Instruction (or adaptation)	Fostering a Community of Learners	Context
Case 1	X		X	X				X								X	Gr 5 Science
Case 2	X	X		?													K-8 Science
Case 3	X	X	X			X	X					X	X				Gr 8 Soc Studies
Case 4	X	X	X	X			X								X		HS Chemistry
Case 5	X	X	X						X	X					X		HS Chemistry
Case 6	X	X	X	X	X	X		X		X			X		X		Grade 2
Case 7		X	X	X	X	X	X			X							HS Reading
Case 8		X		X	X		X			X			X				Gr 8 Lang Arts/Soc Studies
Case 9	X	X	X	X	X	X	X										HS Chemistry
Case 10	X	X	X	X	X		X										HS English
Case 11	X	X	X	X			X	X	X						X		Gr 8 Lang Arts/Soc Studies
Case 12		X	X	X		X		X	X							X	Gr 5-6 Science
Case 13	X		X	X			X	X	X	X				X	X		Elem Bilingual
Case 14	X	X	X							X	X						HS History
Case 15		X				X	X	X				X					HS Math
Case 16		X	X	X	X	X	X	X	X					X			Gr 7 Lang Arts/Soc Studies

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Part I of this volume offers a general introduction to facilitation methods. Part II provides facilitator notes for each case in *Groupwork in Diverse Classrooms*, which incorporate analyses of the issues embedded in the narrative and sample discussion questions for a case discussion. Much of the information presented in the notes draws from a year-long field test of the cases with different groups of teachers.

Together, *Groupwork in Diverse Classrooms* and the *Facilitator's Guide* provide content and structure for valuable experiences in reflective teaching. The facilitator should study both volumes before working with a group of teachers, and the group members should be allocated ample time to reflect on the cases and share personal experiences. The result can be a powerful experience in professional development.

FACILITATING A CASE DISCUSSION

PREPARATION AND PROCESS

Much can be learned just by reading cases. But a good facilitator can expedite that learning by prompting a group to examine the case's issues in ways that readers by themselves might not. Far more than a lecture, case discussion enlivens content and helps participants internalize theory. Still, the idea of facilitating such discussion can be intimidating: when you don't do all the talking, you relinquish authority and therefore can't be entirely sure how the class is going to go.

This concern is heightened when the cases are problem-focused — as all of these cases are — and the authors are honest about the dilemmas they face in their classrooms, the surprises that occur, and the reflective questions they ask themselves about how they handled the situation. In the pilot test of *Groupwork in Diverse Classrooms*, teachers identified with the authors as they struggled to cope with events. The stronger their identification with the author, the more vulnerable they often were during a case discussion because a criticism of the way the author handled a situation was considered a criticism of themselves.

CONSTRUCTING A CASE-BASED PROFESSIONAL DEVELOPMENT CURRICULUM

This section provides the facilitator with strategies to deal with unpredictability, defensiveness, and other issues that arise in case discussions. Ideally, these case discussions don't take place in isolation; they are part of a case-based curriculum — a whole course or program built around the use of cases and including additional readings about the issues being addressed. Case discussion becomes more meaningful when supporting materials explain the general principles exemplified by the case. Conversely, the specific real people and situations detailed in each case add flesh and blood to otherwise nebulous concepts.

One of the problems in professional development workshops on groupwork is the tendency to provide prescriptions and "how-tos" without providing opportunities for teachers to link the prescriptions to analyses of specific classroom situations. Without analyses for people to work through, the learning that takes place is disembodied and, therefore, easily forgotten.

Cases, by contrast, can introduce an individual student, teacher, and classroom, bringing that world to life in all its complexity. Problems under discussion are no longer those of, say, low status students, but of Dennis, Roberto, and Robert — very memorable, real young people with feelings, talents, and families. Their needs may or may not be typical, but their teachers try to meet them in the best way they can. Teachers reading and discussing these cases use the specific situation as a vehicle for questioning their own instructional practices, status interventions, and purposes for groupwork and for reflecting on their own values, attitudes, and experience. Ideally, information in the case is supplemented by other materials, for example, psychological and sociological readings on how to encourage low status students and models of cooperative learning that offer specific strategies for handling such students. Because it provides complexity and a meaningful context, the case can function as the hub of the staff development wheel.

Though reading or discussing a single case can be beneficial, it is the sustained use of cases in group discussion that spurs classroom change. A group often needs to discuss at least four cases to acquire the comfort level, equity of participation, and analytical skills that allow discussion to move to more insightful levels. Moreover, the transfer of insights and knowledge to the classroom doesn't really happen until reflective practices are internalized. The educators who participated in the field test and members of the advisory noted that, by analyzing how similar dilemmas played out in a variety of cases, teachers are likely to make sound judgments when faced with comparable situations in their classrooms.

For each curriculum, case selection should be customized. In preservice, where participants have not yet tested themselves in the day-to-day life of the classroom, a varied group of cases offering insights into the world they are about to enter will be helpful. Though teacher education students have been in classrooms as *students* for 16 years, they need to "make the familiar strange" and begin to analyze teaching from a *teacher's* perspective. Case discussions enable teacher educators to "complexify" day-to-day teaching situations and guide their students to develop the analytic skills required to make strategic judgments in their classrooms.

Student teachers who have used these cases have asserted their importance, especially those who had already done some practice teaching in the field. They reported that the cases "rang true," that they could identify with the problems in the case, and that it was comforting to know that skilled veterans were also struggling with some of the same kinds of problems as they were.

In the inservice environment, cases should have clear links to circumstances at participants' schools so that teachers can compare the case experiences with their own. For example, if a school has a number of limited English speaking students, "Struggles with the Dynamics of Grouping" and "The Chance I Had Been Waiting For" are likely candidates. The cases lead teachers to identify grouping strategies and appropriate status interventions to integrate limited English speaking students into classroom life.

Another means of enhancing the usefulness of the case studies is asking participants to keep journals, jotting down observations about the cases that draw on their classroom experiences. Journals become catalysts that move participants to begin writing their own cases. Also, our research suggests there is a strong correlation between case writing and teacher learning.

An on-site, case-based professional development seminar can have school-wide effects. Teacher isolation is reduced as participants discover the strength of group problem solving. Consequently, teachers may risk modifying the instruction in their classrooms. They may also apply group problem solving to other school issues, including deciding their own professional development needs.

PREPARING TO LEAD DISCUSSION

Careful preparation is critical to successfully leading case discussions. You'll need a thorough knowledge of the case as well as clear ideas about how best to use the facilitator notes to guide the sessions.

Reading the case. To effectively facilitate a discussion, one cardinal rule applies: you must have a good grasp of the case and its nuances. This is true for any case, but especially crucial when delicate subject matter is involved. The only way to develop deep familiarity is to read the case several times. The following suggestions will help guide your reading:

- As you begin, take note of your first impression. What excites you? What bothers you? With whom did you relate? Subsequent readings may change your answers to these questions, so it's important to jot down those initial reactions to use as diagnostic tools. Initially, they help you gauge your values and empathic response to the case. Later, they may be key in helping you understand participants' starting points in the discussion.
- Since each case has many layers of meaning, each reading yields more information and understanding. As you read, ask yourself, "What is this a case of?" and "What are the different ways to interpret this case?" Also note the descriptive words, key phrases, and dialogue used, especially early in the case as the teacher-author introduces students or events.
- Reread the case with specific objectives in mind. Use one reading to identify teaching and learning issues and another to look for sociological impact, for example, how will events described in the case affect this student's capacity to contribute to the classroom community? A third reading can focus on the teacher's role — what professional issues are at stake? The more perspectives you have on the case, the better equipped you'll be to prompt broad-ranging discussion, thus reinforcing the idea that there is no "one right answer," while keeping group participation balanced. Should one person's viewpoint tend to dominate, your suggestion of another lens to look through can draw out participants whose knowledge and experience make them identify with the case in an entirely different way.
- Look for pressure or stress points in the case — instances when a teacher is confronted by angry students, puzzled by a dilemma, or experiencing doubt or remorse about his or her actions. In the discussion, these events serve as teachable moments. For example, in "Silences: The Case of the Invisible Boy," a crisis is followed by a catharsis for the teacher. If you prompt teachers to explore different interpretations of this event, they may come to understand why the crisis occurred. This insight can help them avert a similar ordeal in their classrooms.
- Look for subtle cues. Cases like "My Struggle with Sharon" overtly raise an interpersonal problem with a particular student. But a deeper understanding of student and teacher actions requires examining the narrative's details, perhaps making paragraph-by-paragraph notations. In many of the cases, information about individuals' perspectives is couched in subtle details. The group needs to look beneath the surface of what occurred. What might have happened if the teacher had perceived the student differently? What might the teacher have done, and how might the student have responded?

Using the discussion notes. The discussion notes in this guide are resources designed to help you plan each case discussion. As analytic interpretations, the notes alert you in advance to potential problem areas. They examine key issues and sometimes add information not provided by the case's author.

Though the discussion notes are structured to help you analyze specific issues and provide examples of probing questions, they are *not designed* to give you a particular pathway for moving a group through the case. Instead, they are designed to help you make your own plan for discussion, from which you can deviate as you ascertain the group's direction with the discussion. Anticipating this, you can use the notes to identify stages of discussion and plan probing questions that enable participants to view the case

from different lenses. Just as you customize case selection and sequence, you'll want to tailor questions to suit the profile of your particular group or school.

Planning the physical space. The arrangement of the physical space for discussions can either encourage intimate participation or discourage it. We have found that a U-shape arrangement with participants seated at tables on the outside of the U works best. This arrangement enables participants to maintain eye contact with one another during a discussion and the facilitator to move within the circle at will. We ask participants to write their first names on the front of a folded index card and place it on the table in front of them. It is important to place either a board or easel with chart paper at the head of the U for recording major points made during the discussion. This enables participants to see how the discussion is progressing.

Providing adequate time. It takes time to peel away the surface layers of the cases and get to the underlying problems. If you allow two hours for case discussions, you should have adequate time to delve deeply into most of the cases. But what if you only have an hour to an hour and a half? This doesn't mean you shouldn't try to discuss any cases. But you will have to plan your time accordingly. One suggestion is to distribute the case before the actual discussion and ask participants to read it carefully, jotting down questions and noting issues *before* class.

The practice of coming to the session prepared to discuss the case is desirable even if you don't have a time crunch. In preservice education, teacher educators frequently ask students to prepare a preanalysis of a case before class and a postanalysis after the discussion. Pre- and postanalyses enable participants and teachers to track how the discussion influenced participants' insights into each case.

If you're pressed for time, it's important to keep one eye on the clock. It's easy to become caught up in one section of the discussion and run out of time before you complete all the parts you had planned. Stopping a discussion before you can bring it to closure is usually more harmful than cutting short a particular section midway through the discussion.

DYNAMICS OF THE GROUP PROCESS

A successful discussion requires a climate of trust, acceptance of differing communication styles, and clearly defined ground rules and roles.

Establishing trust. Successful case discussion can only take place in a climate of trust. How can you help ensure that participants feel safe enough to risk exposing their opinions to others' judgment?

You'll need to consider many factors: the physical setting, use of space, seating arrangement, your style of leading discussion, and group size. Perhaps most important, however, is the life experience of group members. Each participant brings to the group his or her personal values, attitudes, and beliefs — both conscious and unconscious. Trust will be affected by unspoken concerns, such as fears of being perceived by peers as an inadequate teacher who has problems in his or her classroom.

The clearer the structure and the more secure you are in the role of facilitator, the better the chances of developing a safe climate and productive discussion. Whenever possible, create groups that include individuals with differing life experiences, so participants can learn from each other.

In a group with well-established trust, the case discussion provides diverse participants a chance to reveal more of themselves and be better understood. In some instances a catharsis occurs and must be handled delicately. It is also important for the facilitator to be aware that established roles among members of a given group may create an obstacle to open discussion because of people's fixed opinions about each other.

Communication styles. People have different cultural values about communicating and therefore participation will be unbalanced. Case discussion asks us to think about our reactions to characters in the case. The degree to which people are willing to reveal their values or beliefs is a function of their style of communication.

Some participants will find it easy to talk openly and debate the topics; others won't. Some will be aggressive; others will hold back until they hear the rest of the group's opinions. Some will want to speak first; others will need prodding to speak at all. Some will disagree openly, others indirectly. These styles reflect not only personality, but culture. In classrooms we often subscribe to a particular model of communication — that you speak up when you disagree. However, to some cultures and individuals, it may be inappropriate to express disagreement.

As the facilitator, you must create a cross-cultural climate, which requires encouraging a variety of opinions through questioning and framing differing perspectives for examining the case. It also means watching people's body language so you won't lose the chance when a quiet person is about to say something. You can step in and gently silence interrupters. ("Susan hasn't had a chance to share her ideas about the story, so let's give her that time.")

Rules and roles. To establish a climate that is supportive of meaningful discussion, it's crucial all participants understand the goals of the discussion, ground rules, and role of the facilitator.

Case discussion goals. A first step in leading a discussion is presenting the goals of the case seminar:

- To frame and reframe problems in each case.
- To explore and analyze multiple viewpoints in each case.
- To connect issues in the cases with participants' teaching situations and develop a repertoire of strategies to use in dealing with such issues.
- To stimulate collaborative reflection and strategic introspection of one's own practice.
- To develop collegiality and a shared understanding among participants.

Ground rules for participants. Participants must overcome the notion that there is only one acceptable way to analyze each case. Instead, the aim is to foster an ethos of critical inquiry that encourages multiple interpretations, conflicting opinions, and equal participation. Clear ground rules can help set the stage for this kind of discourse:

- Respect each member's contribution and point of view.
- Try not to let anyone monopolize the discussion. Provide equal opportunity for all members to contribute.

- Do not interrupt! Wait for speakers to finish their statements before responding.

Role of the facilitator. To support these ground rules, facilitators should:

- Ensure equal and full participation by keeping track of those who want to speak and making sure each has a chance.
- Encourage quiet members to contribute and tactfully redirect those who dominate.
- At suitable points, synthesize key ideas; help clarify those that are misunderstood.
- Model candor, courtesy, and respect, and remind participants of ground rules whenever necessary.
- Avoid being the advisor each time someone makes a comment. At times be a blank screen, offering others the opportunity to respond.

LEADING THE DISCUSSION

Although you may have more expertise than the group you are working with, as *facilitator* you should not assume the role of expert during a case discussion. Instead, your responsibility is to elicit alternative perspectives and help participants analyze them. You should take the stance of an active listener, reflecting by your words and body language that you heard, understood, and accepted what the speaker communicated. You should also have at your disposal a set of probing questions that help expose, clarify, and challenge assumptions and proposed strategies that participants raise during the discussion (see facilitator notes for examples of questions).

If members of your group appear to accept ideas before reflecting on different perspectives, you may offer other perspectives for their consideration. Your goal, however, is not to lead them to a specific point of view, but to help them come to their own conclusions about what is best for their students. One of the most difficult aspects of leading case discussions — especially for new discussion leaders — is the possibility that participants may leave a meeting with what appears to you the wrong point of view. You may feel compelled to give the “correct” answers, as if there is one best solution. Instead, try not to show impatience with teachers’ views. Changing one’s beliefs takes time, and being told what to believe is rarely effectual. Individuals come with their own set of experiences that help shape their beliefs. They need time to evaluate these during case discussions and later in their classrooms. The cases in this volume are constructed and sequenced so that participants and facilitators have numerous opportunities to revisit the same issues (see Table 1).

THE OPENING

When beginning a new group, remember that group members may need to get acquainted. Field testing showed that allowing time for participants to introduce themselves, or even using a simple icebreaker, sets a comfortable and warm climate and pays off later. If a group is going to meet several times, it is worthwhile to allow substantial time during the first session for getting acquainted, going over rules and roles, and discussing the purpose of using cases in teacher education.

How do you begin a discussion? Your opening questions are important; they set the tone and scope of the entire discussion. So, experimenting with ways to make your openings as flexible and participatory as possible should be one of your goals.

One opening approach is to establish facts by asking one or two people to summarize what actually happened in the case, then asking others to join in. Asking for the facts of the case is a comfortable way to enter the discussion because it enables everyone to begin the discussion with a shared sense of what happened and emphasizes the importance of differentiating fact from interpretation. Sometimes, however, participants become frustrated with this exercise and want to jump right in and get to the provocative issues. If this happens, you will have to judge how important it is to establish facts before delving into larger issues. You can always return to the facts by asking factual questions throughout the discussion and referring back to the text periodically to gather evidence.

Another way to open a discussion is to ask participants to work in pairs for five minutes to generate key issues and questions raised by the case and record their results on chart paper before fleshing out any issues. (If you want to begin with facts, you can use this approach after the facts are established.) There are many advantages to this approach: 1) participants can refer to the list during the discussion, making sure that all the points were addressed; 2) you and the group acquire a sense of the range of interpretations before discussion begins; and 3) you convey the idea there are many ways to look at the case, thus ensuring the discussion doesn't become fixated on a single view. This approach works especially well when you meet with a new or particularly large group because all group members become engaged immediately in discussing the issues. The pair work also serves to break the ice for those who are hesitant to talk in large groups and makes them more inclined to speak up in the larger setting than they would otherwise be.

After completing the list of issues and questions, ask the group to decide where *they* wish to start the discussion. This sends a subtle message to the group that you respect its agenda and won't impose your own. Some teachers reported this gesture was important; it appears to empower certain group members to speak up who might otherwise remain silent.

A third approach to beginning the discussion is to provide a focus question and immediately examine a key issue. If you choose this tactic, be sure to consider carefully your opening question, because it is likely to set the tone for the entire discussion. The advantage of starting with a focus question is the discussion usually gets off to a lively beginning. The tradeoff is that it may prevent some participants from bringing up their own issues. It may also convey the perception that you have a fixed agenda for the discussion.

CORE OF THE DISCUSSION

Once the initial focus of the discussion is established, we suggest the following discussion pathway:

- **Analysis** — Analyze the problem(s) from the viewpoints of the different actors in the case, using the notes as a guide to the analysis. The analysis should take *at least* half the discussion.
- **Evaluation** — Examine the teacher's strategies for handling the problem(s).

- **Alternate Solutions** — Generate alternate strategies for handling the problems, making sure to consider the risks, benefits, and long-term consequences of each solution.
- **Principles of Practice** — Formulate some generalizations about good practice based on the case discussion, prior discussions, the teachers' experience, and their prior theoretical understanding.
- **"What is this a Case Of"** — Moving up the ladder of abstraction, link this case to more general categories, which may or may not be on formal theory.

Though this pathway appears linear, in reality discussions rarely follow such a straight path. One aspect of the discussion, however, should follow sequentially. We emphasize the necessity of adequately analyzing the issues in the cases — from a variety of perspectives — *before* evaluating how the teacher handled the problems and generating alternative strategies. In our experience, educators sometimes make quick judgments before adequately analyzing the problems.

In a typical discussion, the initial focus is on the particularities of the case and an analysis of what happened. In the diagnosis of what went wrong, participants' comments reflect personal experience (if they are experienced teachers) and theoretical understanding: "The teacher didn't adequately take advantage of Dennis's contribution to the group as a status intervention;" "The teacher didn't prepare her class adequately for their group task;" and "The teacher didn't tailor her assessment to what the students learned in their group." Experienced teachers or novices with some classroom experience often enrich the discussion with stories of their own experience.

The effectiveness of the analysis depends, to a great extent, on your repertoire of questioning techniques to encourage reflection. Different types of questions (e.g., open-ended, diagnostic, challenging, prediction, and hypothetical) serve different purposes. The facilitator notes in the next chapter contain numerous examples of types of questions. As facilitator, you should be prepared to follow participants' responses with probing questions that deepen their reflection (see Table 2 for a typology of probing questions). If participants begin to ask questions of one another, rather than continually orienting their remarks toward you, this is a sign of growth among the group.

Ethos of Inquiry. One of the most important tasks of the facilitator is to create an ethos of inquiry — a group spirit that is not limited to exchanging opinions, but rather leads to substantive learning. Accomplishing this task requires remembering that the focal point of a case discussion — the personalized narrative — can be both a hook and a pitfall. The detailed, individual story draws people in and it prompts them to share their own stories, especially since they often just left their classrooms. But this level of discussion can be so absorbing that the group fails to realize that the point is to generate principles, or sets of practices, or new ways of thinking that can be tested across cases.

The facilitator's challenge is, first, to build an ample world of ideas for the group to explore, then to move discussion up and down a ladder of exploration: up to higher principles, back down to very discrete practices, then up again. In other words, to repeatedly move from the level of opinion swap to the desired level of applied knowledge. How do you do that? How do you get people to deduce principles from experiences they're discussing? To move away, come back, then generalize again?

Table 2: Typology of Questions

<i>Open-ended questions:</i>	What are your reactions to the case about the teacher who cried in front of her students? What aspects of the problem were of greatest interest to you?
<i>Diagnostic questions:</i>	What is your analysis of the problem? What conclusions can you draw from the data?
<i>Information-seeking questions:</i>	What is the range of reading test scores in your class this year?
<i>Challenge (testing questions):</i>	Why do you believe that? What evidence supports your conclusion? What arguments can be developed to counter that point of view?
<i>Action questions:</i>	What needs to be done to implement the plans in the teacher's planning book?
<i>Questions on priority and sequence:</i>	Given the failure of Mr. Hanson's smartest students, what is the first step to be taken? The second? And the third?
<i>Prediction questions:</i>	If your conclusions are correct, what might be the reactions of your students?
<i>Hypothetical questions:</i>	What would have happened if Ms. Masterson had not asked her mentor for help? Would Bart have succeeded if he had not been appointed as leader in his group?
<i>Questions of extension:</i>	What are the implications of your conclusions about why this group remained uncooperative?
<i>Questions of generalization:</i>	Based on the discussion and your past experience, what principles of teaching and learning should you consider when deciding whether to intervene in a group's discussion.

Adapted from:

Christensen, C. R., et al. (1991). *Education for judgment: The artistry of discussion leadership*. Boston: Harvard University Press.

- Try not to become emotionally involved in what's being said. You will be more effective if you keep some distance and continually analyze how the discussion is going. Pay particular attention to equitable participation.
- Periodically tie up loose ends, summarize what's been learned, and move along to the next increment. This keeps the group members from repeatedly coming back to the same point or spreading out so far that their talk no longer relates to the case.
- After evaluating how a teacher in the case dealt with a particular problem, ask what alternative strategies the teacher could have used and analyze the risks and benefits of each alternative. Such questions can inspire teachers to make judicious changes in their own situations.
- At opportune moments, ask participants to come up with generalizations or principles based on this and other case discussions and their experience. This develops their capacity to transfer what they learn from the analysis of a particular case to similar situations they are likely to meet in their classrooms.
- Bear in mind that you are teaching the skills of case analysis. Ultimately, you are moving participants toward applying what they're learning to their teaching behaviors. But only in-depth analysis allows that learning to occur, and the skills required take time to develop.

The possibility of establishing a true ethos of inquiry is enhanced if you structure the case-based curriculum. As explained above, this involves assigning other readings that play off the issues and questions embedded in each case. When discussion takes place in such a structure, the group will not be confined to talking only about what they think happened in the narrative or their personal values or beliefs, but can explore other people's ways of looking at a given topic.

Your larger goal is to extend this approach beyond the single case discussion to the entire course or curriculum. Over time, discussion will have covered a family of cases, which then can be criss-crossed, or compared with each other. At the end, you should be able to engage participants in framing guiding principles that they now feel would apply, not just to teaching kids like the individuals in the cases, but to teaching in any setting where issues about groupwork come into play.

The greatest challenge of the case approach is that each discussion is different and takes on a life of its own. Your role is not to indoctrinate, but to provoke, inform, and provide equal opportunities to contribute. This is sometimes easier said than done, however. At times, the discussion may appear at an impasse, or participants may be ignoring information you feel is key to understanding the case's problems or dilemmas. At such times, you need to shift the topic. One way of doing so is to say you're going to play devil's advocate, then introduce the missing issue as a counterpoint. Or you might elicit questions about a quote from the case. Yet another tack, if it fits in comfortably, is to give a two- or three-minute mini-lecture based on the teaching notes or other scholarly sources. (This can be risky, however, if perceived as too directive; it may also limit discussion.) Another strategy is to incorporate activities such as role playing and/or structured small groups, which can offer a welcome change of pace.

There may be tension between your own agenda for the case and the group's agenda. If you merely follow where the participants want to take the discussion, you abrogate your role as a teacher. But if you stick to your discussion plan without letting participants move in a direction they prefer, you communicate that you are in control and they might hesitate to bring up their issues and concerns. One way to get around this dilemma is to look for opportunities to build on participants' ideas, rather than

raising new ideas yourself. Also, remind them that, in your role as facilitator, you will challenge their ideas and push them to defend their views, regardless of their position. Ultimately, we are trying to move participants from reflection to problem solving and a willingness to change their own classroom practice.

CLOSING THE CASE DISCUSSION

Another major challenge is helping participants synthesize and reflect on what they learned from the entire discussion. Participants should have the opportunity to identify new understandings as well as unresolved conflicts and questions before the discussion is over.

One approach is asking participants to reflect on the case and respond to the question, "What is this a case of?" This question, which began as a suggestion from Lee Shulman, is the theme that weaves through all our case work. It asks teachers to characterize a particular case in relation to other cases, to their own experience, and to the conceptual or abstract categories with which they are familiar. Shulman suggests that "What is this a case of?" is a way of encouraging participants to move between the memorable particularities of cases and the powerful simplifications of principles and theory.

Other ways of bringing the discussion to closure include asking the students to spend a few minutes doing a freewrite, responding to such questions as: What new insights did you gain from the case discussion? Do you have lingering questions? What part of the discussion did you find most challenging? How can you relate what we discussed to your own experience? What strategies could the teacher have used? Some people appreciate the opportunity to synthesize their thoughts in writing before sharing them with the larger group. Another approach is to divide the group into pairs to share what they learned, relate it to their own experience, and brainstorm what they would do differently. After the pairs meet, bring the group back together and ask one member of each pair to report key ideas they discussed. A final tactic is simply to go around the group asking participants to state insights or understandings. Record this information; perhaps compare it with the group's initial analysis.

DISCUSSION STAGES AND STRUGGLES

No group achieves a climate of trust without a series of struggles. Facilitators need to be aware that groups undergo developmental growth. Along the way, people shift roles and become more at ease with differences of opinion. Part of your job is to create a nonjudgmental climate that supports this progression.

The group's comfort level is directly related to your own. As your skills develop, your confidence grows and your anxieties diminish. Your equanimity then sets a tone supportive of people whose opinions may strongly differ from yours. Providing informal opportunities for socializing also helps establish warmth that carries over into the discussions.

Once established, a climate of trust may lead a group member to make a personal revelation in the course of explaining his or her reaction to a case. Such moments can be fragile; your support and the respect of the group are crucial. Such moments can also be breakthroughs, moving the group to a deeper level of discussion and creating strong group bonds.

We noted earlier that people participate in different ways, which may be related to racial and ethnic perceptions and roles. As the facilitator, you play a strong part in determining who dominates the

discussion and who is not contributing. Take the time to examine that role. Doing so requires a sort of self-diagnosis, using questions analogous to those used in searching for meaning in a case. Immediately after reading each case, you asked, "What did I feel about the story? What did I really like or not like?" Now you should step back and ask, "To whom do I find myself asking questions? Do I have favorites?"

Be aware of how your style of communicating influences your responses to participants' behaviors: Who do you feel is getting carried away and who do you feel comfortable with? Your responses allow or impede productive discourse. In short, your best diagnostic tool for knowing whether the group is progressing toward nonjudgmental discourse is your own comfort level.

The case discussions in *Groupwork in Diverse Classrooms* offer teachers insights into effectively utilizing small groups. But that potential can only be realized through each group's process of reflection. If successful, the group may become a microcosm of what we're trying to accomplish in our classrooms: to reach a place where inquiry, reflection, respect, and equal participation are the norm.

PART II:
FACILITATOR NOTES

CHAPTER I:
CONCEPTIONS OF TEACHING AND LEARNING

**Case 1
Facilitator Notes**

WHEN DO YOU INTERVENE?

This case typifies classic dilemmas that go to the heart of groupwork: While students are working in their groups, when is it appropriate for teachers to intervene? How should they intervene? These are complex questions and appear in several cases in this volume. On the one hand, when teachers delegate authority to students for their own learning in small groups, students are empowered to be actively involved in their own learning and can benefit from collegial interaction with their peers. On the other hand, teachers feel they are ultimately responsible for their students' learning. What happens when kids may misunderstand basic concepts and teach their misconceptions to others?

In this situation, the students had previously divided into groups to research the island of Borneo and become experts on particular topics. As we enter the narrative, the teacher reconfigures the students into jigsaw groups so that each newly formed group has one expert from each topic. During jigsaw, the "experts" share their knowledge with the others so that all can develop a deep understanding of the material. However, when two of the experts appear to present inaccurate information to their respective groups, the teacher struggles to figure out how to intervene. She seeks to prevent misunderstandings without harming either the self-esteem of individual experts or the spirit of community that had been developed within the class.

CONTEXT

This fifth/sixth grade combination classroom set in an inner-city school participated in the Fostering a Community of Learners (FCL) research project created by Ann Brown and Joe Campione at the University of California, Berkeley. FCL is an approach to groupwork for which deep disciplinary understanding and the development of skills of critical literacy are central. Students engage in collaborative research, then share their information and understandings through jigsaw and other activities, and finally apply what they have learned to a new and more difficult task that is reported in a public exhibition or performance. In an FCL classroom, groupwork activities elegantly synthesize several well-regarded approaches to groupwork, e.g., jigsaw (Aronson), reciprocal teaching (Palincsar and Brown), group investigation (Sharan), and writing process groups (National Writing Project).

QUESTIONS AND ISSUES

In this section, we have framed major issues from *When do You Intervene?* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage

facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

This case raises fundamental issues and beliefs about teaching and learning. Reactions to the basic dilemma have varied widely. Whereas some teachers have identified strongly with this teacher's questions, others have wondered why she even wrote the case: "What's the problem? If you see that someone is giving the wrong information, of course you must correct the mistakes." Thus, the case is about much more than groupwork. It is about how students gain knowledge, and how teachers foster that process. The case facilitator may want to consider the background of the group members and their familiarity with *constructivist* models of learning, in which the active development of meaning by the learner is seen as essential for deep understanding (as opposed to *transmission* models of learning, in which teachers tell and students remember). The decision to use this case, the intended purposes, and the kinds of questions to have in mind as a facilitator, will be influenced by the background of the group. Is the group likely to challenge the teacher's approach or ready to consider subtle details of how the teacher facilitates learning? Do group members agree with this teacher's belief that "people don't hear something until they are ready"?

Purpose of groupwork

What do you think is the purpose of groupwork in this classroom? How does it impact student learning and the development of classroom community? What kind of community is the teacher trying to create with her students? How does this teacher's conception of groupwork compare to your own?

Multiple roles of teachers during groupwork

The role of the teacher in this classroom differs dramatically from the traditional role in which a teacher's responsibility was to provide students with correct information. How does this teacher see her role? How does she illustrate this in the narrative? How does her role definition inherently create tensions during groupwork? What is your definition of the role of a teacher? How similar or different is it from this teacher's conception?

Intervention or not?

As the teacher articulately describes, "When students emerge as 'experts' in a domain, sometimes their newly formed theories are erroneous." Examine the two problematic jigsaw situations, first individually and then comparatively. What actually happened in each situation? What were the perceived errors that each expert made? How important were the errors to students' understanding of DDT and its use? What did the teacher do in each situation? [It might be useful to refer to the text for the teacher's exact words.] Were there any apparent differences in her approach to each intervention? If yes, how might the students have interpreted her questions differently? What might have happened if the teacher had ignored these errors? What alternate strategies could she have taken? What are the risks and benefits of each strategy? [This is a rich opportunity to explore considerations and approaches in handling perceived misconceptions and the tradeoffs associated with each.]

The teacher discovered Doranne's apparent misunderstanding when she responded inaccurately to a question about her paper. Some participants may point out that the teacher could have intervened by correcting the paper. Why was the paper allowed to reach the jigsaw with inaccurate information? [This could open the door for an interesting discussion.] What is a teacher's responsibility for the accuracy of

a group's paper? Are there situations in which it is appropriate to allow misunderstandings in a paper? Why?

Issues of power and status

This teacher was concerned about power and status issues in her classroom. Teachers can find opportunities to raise a student's status by publicly recognizing that student's contribution. They can also lower a student's status inadvertently with inappropriate interventions.

In this case, the teacher thought Doranne had a "potentially serious misunderstanding" about DDT after hearing her presentation during a jigsaw. At this point, the teacher had to make a split-second decision. Should she wait until the jigsaw was over and deal with the misunderstanding during a whole-class lesson, or should she intervene on the spot? These are the kinds of quick decisions teachers have to make hundreds of times during a day. This time she decided to question Doranne immediately because she felt Doranne "was very self-confident." Yet, after the teacher's intervention, Doranne didn't speak again during the jigsaw session. This raises some interesting questions. Does this experience imply that you shouldn't tell a student that he or she is wrong? How, and under what circumstances, do you tell a student that he or she is wrong? Some psychologists caution teachers against expecting more from some students than others. Lower expectations can lead to a self-fulfilling prophecy, thereby lowering the opportunities for some kids to learn. How does this theory inform our understanding of the teacher's dilemma? How do issues of power affect the learning community of this and other classrooms?

Principles of teaching and learning

How typical are these problems for you in your classroom? When presented with a situation in which it appears that small groups of students are either missing the point or discussing inaccurate information, what do/should you do? How do you weigh the chance of developing misconceptions with the chance of damaging a student's self-esteem? What principles of teaching and learning should you consider when deciding whether to intervene in a group's discussion?

<p style="text-align: center;">Case 2 Facilitator Notes</p>

GROUPWORK? RATS!

This veteran elementary school science teacher struggles to expand her students' concept of learning. In her quest for developing a constructivist classroom where students take responsibility for their own learning, she creates rotating learning stations that incorporate both text-oriented activities and hands-on science investigations. But she is surprised to discover that the students thought they learned more from whole-class instruction and traditional reading and question-answer activities than from hands-on science activities. During the narrative, she questions her classroom organization, methods, and procedures and paves the way for rich analysis and discussion about these issues. Many of the questions raised in this case are similar to those described by the high school chemistry teacher in Case 4.

CONTEXT

After 16 years as a primary teacher in an inner-city elementary school, this teacher has a new role this year as science specialty teacher for 350 students, grades one through five. She feels constrained by 50-minute periods and wonders how she will "ever learn their names, much less facilitate learning the scientific method in a science lab."

QUESTIONS AND ISSUES

In this section, we have framed major issues from *Groupwork? Rats!* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly with the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

What is "real learning?"

This teacher has thought a lot about the kinds of instructional activities that lead to real learning. What does she mean by "real learning?" What do you think it is? The teacher appears to favor group investigations over whole-group activities and provides her rationale in the last paragraph of her case. Do you agree with her analysis? What do you think are the advantages and limitations of each form of instruction? How might both kinds of instruction interact to support each other?

Examining the task

The mapping task. What was the teacher's purpose for the mapping task? What did she hope would happen? What actually happened? How did the students respond? Many science teachers take special

precautions to teach their students how to work in a science lab and with animals. How did this teacher prepare the students for their observational task? What were the consequences for inappropriate behavior?

The teacher wondered whether her emphasis on working together during this task negatively affected the group. What do you think? How might you have handled a similar situation? She noted that earlier log entries by students revealed that the group had been "cooperative and engaged in their observation." In looking at the entries, do you agree with her assessment? Why?

The teacher noted that she hadn't rushed over when the group began to experience problems because she wanted to "promote and honor the students' ability to find their own way to work together." What are the tradeoffs for teacher intervention in this case? What would you have done? What are the risks and benefits of your proposed strategy?

Text related task. The teacher said the text-related task was similar to the kind of work students routinely did in their classrooms — looking up answers to questions in a book. She thought the task was dull compared to the hands-on activities at the other tables and was surprised that the students appeared to like it. Yet in analyzing the task, we quickly see that this was no simple question-answer task that came from a textbook. Rather, it was a creative assignment that demanded cooperation and collaboration among students. Examine the task. Note particularly: student-generated questions, use of multiple resources, evidence of distributed expertise (pairs of students working from different resources), and evidence of interdependence through consensus and helping behaviors. What did the teacher hope to accomplish from this task? What actually happened? How did individual students, especially John, respond? How did they and the teacher assess their work? What do you think of the design of this task? Would you call it a group investigation?

Comparing the tasks. How would you compare the mapping and text-related tasks? What kind of preparation is needed for each? How is each task related to real learning?

Assessment

One of the most important and difficult challenges in groupwork is developing appropriate assessment procedures for individuals and groups. What methods did the teacher use to assess the mapping and text-related tasks? What other kinds of assessments could she have used? How would/do you assess group tasks in your classroom?

Classroom organization

This science lab/classroom is rather atypical in an elementary setting, yet it raises some interesting questions about classroom organization. The class is organized in learning centers, where students get a chance to revisit a concept through several group activities. On occasion, the teacher breaks up the routine and provides whole-class instruction, but it appears she does not like it. What are the advantages and limitations of this kind of arrangement from the teacher's perspective? From the students' perspective? And from your perspective? Is it possible to have kids work through creative learning stations and end up learning nothing? What has to happen for real learning to occur? How would/do you organize your class to achieve real learning?

How can you expand childrens' perceptions of real learning?

The teacher describes her frustration with her students' limited ideas of what "real learning" is. In a personal communication with one of the case editors, she noted, "If kids have one perception of learning, it creates real boundaries around what they consider as learning." How does that perception interfere with more hands-on modes of learning? How can you expand their perception of what real learning is? What principles of teaching and learning would you draw on to answer these questions?

<p style="text-align: center;">Case 3 Facilitator Notes</p>

POOR PERIOD THREE!

The eighth grade social studies teacher in this case explores whether groupwork is ever an inappropriate teaching strategy. She describes a class that is difficult to manage because it has a "disproportionate number of emotionally needy individuals." After a particularly unproductive groupwork lesson, the teacher attempts several strategies to improve the situation, which are met with varying degrees of success. This case offers many opportunities to discuss the purposes of groupwork, establishment of a classroom climate for productive groupwork, and strategies for classroom management of groups.

CONTEXT

This 20-year elementary and middle school veteran teaches 8th grade social studies at a middle school located in a middle income suburban neighborhood. The student population is diverse — 50 percent Latino, 40 percent Caucasian, and the remaining 10 percent a mix of African American, Asian American, and Filipino. The teacher describes the students as coming from "low-middle class neighborhoods." At this school, the students and teachers at each grade level are divided into two teams. A team of teachers teaches all the subjects to the same group of approximately 170 students. This teacher team is comprised of six teachers — two language arts teachers, one math, one science, one social studies, one computer/special support teacher. The author of this case is the social studies teacher for all 170 students on the team. In any given class, there are a number of students designated as sheltered because they are in the process of learning English and require additional language instruction support. In addition, all of the special education students for the 8th grade are mainstreamed into this team. In the class described in this case, there are nine special education students as well as a full-time teaching aide.

QUESTIONS AND ISSUES

In this section, we have framed major issues from *Poor Period Three!* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

Poor Period Three

The title, prologue, and background section of this case vividly portray this teacher's third period. How does this teacher describe the class? [Probe for specific details, e.g., "poor," "no match," "disturbing chemistry," "torment each other."] What kind of mood or classroom atmosphere does she depict in the opening dialogue? How do you think she feels when she is teaching the class? How do you think the

students feel during the class? She describes this class as “her match.” What are the implications of the adversarial metaphor she employs to describe this class?

What does she believe is the cause of the problems in the class? [Probe for “disproportionate number of emotionally needy individuals.”] What is your analysis of the problem this class presents?

Have you ever had a class like her third period? How did you cope?

Purposes for groupwork

Groupwork can serve many different pedagogical purposes, for example, enhancing deep content knowledge, and promoting higher-order thinking, language learning, and pro-social behavior. What are this teacher’s purposes for groupwork? Of these purposes, which seems most important to her? As you examine the case as a whole, in your estimation, which of these purposes does she fulfill?

The groupwork task

The teacher weaves into her narrative a description of a sample lesson, a role-play activity called Elementary Eagle. What does she expect students to learn through this activity? In your opinion, is this a sound groupwork task? Justify your opinion.

Roles in groupwork

In this case, the teacher has assigned each student with a specific procedural role. For instance, she mentions a harmonizer and a facilitator; other roles commonly assigned are reporter, recorder, and materials manager. These procedural roles are assigned so that the students collectively assume responsibility for keeping the group on task and working productively. They are designed to free the teacher from the burden of management (e.g., seeing that each group knows what to do or that it has the proper materials) and thereby afford the teacher opportunities to attend to students’ thinking and learning.

How do the students appear to handle the responsibilities of their procedural roles? How well-prepared do the students appear to be to perform their roles? What are some ways you can introduce students to roles? How does your use of roles compare with this teacher’s?

Just as crafting groups can present a thicket of decisions, so too can the assignment of roles to students. How do you think this teacher decided which students should play which roles? How do you think the students felt about the roles they were assigned?

When describing the task, the teacher mentions roles each student must assume in order to complete the task (e.g., fisherman, farmer, carpenter, merchant, or soldier). How do these roles contrast with the procedural roles (e.g., facilitator, harmonizer, etc.)?

Classroom management

Introducing groupwork can sometimes exacerbate classroom management difficulties. Several episodes in the narrative suggest that the teacher has some difficulty managing this class. What specific inappropriate student behaviors does the teacher mention? How does she handle these students and

situations? To what extent is groupwork a factor in the disruptive episodes? How would you handle these students and situations? What advice regarding appropriate response could you offer this teacher?

Debriefing discussion

A debriefing discussion often follows a groupwork lesson, with topics ranging from summary and analysis of content learned to groupwork process. What aspects of groupwork does this teacher address in her debriefing? How do you think the students responded to the debriefing discussion? In your opinion, what impact will this discussion have on future groupwork lessons? How would you have conducted this discussion?

Strategies to improve groupwork

After struggling though the Elementary Eagle lesson, the teacher attempts several strategies to improve groupwork in this class. What are the strategies? How does she assess their relative impact on the class? Can you suggest other strategies that might have worked with this class? What are the tradeoffs associated with her various strategies? With those you may have suggested?

A cooperative atmosphere

How does the teacher explain why her period three students cannot create a "cooperative atmosphere"? [Probe for the responses: "emotionally needy," "lack experience in small group interaction," "lack self-esteem."] Based on the information, how do you explain the class's uncooperative atmosphere? In your opinion, what can be done to improve the tenor of period three?

In the epilogue, the teacher observes that creating an atmosphere of trust is both time consuming and necessary for productive groupwork. How do you assess her conclusion? Aside from trust, are there other attributes you feel characterize a cooperative classroom? What advice can you offer others about how to establish a cooperative classroom? What tradeoffs does a teacher make by taking the time to build a cooperative atmosphere?

Professional development

At several points in the narrative, the teacher refers to her professional development experiences with groupwork. How does she describe those experiences? How does she draw upon what she learned in professional development seminars? [Probe for the responses: "conversion to groupwork," "persist as I was trained," "clinical answers."] Given her statements about professional development and descriptions of her teaching, what do you think are her assumptions about her role during groupwork? The students' role?

<p style="text-align: center;">Case 4 Facilitator Notes</p>

DO YOU LET KIDS FAIL?

After teaching chemistry in a traditional manner for seven years, this teacher tries a new approach focused on independent learning, problem solving, and groupwork. Whereas some groups blossom on their own, others struggle. One group, in particular, appears to resent the teacher's unwillingness to provide direction for the group task and fails to develop its final presentation. The teacher is left wondering whether it was right to let the group fail. This case and Case 10 question how teachers can motivate students to assume responsibility for their learning.

CONTEXT

This teacher teaches in a suburban school that has some of the richest and poorest students in the Bay Area. Her chemistry classes reflect the school's diverse student body. (See the casebook introduction for a description of Complex Instruction.)

QUESTIONS AND ISSUES

In this section, we have framed major issues from *Do You Let Kids Fail?* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

Why is the teacher surprised at the extent of student dependence on her?

The teacher-author is surprised and disappointed by the extent to which the students depend on her to give or confirm the "right answer." Several teachers in our pilot project questioned this response. In most classrooms, teachers are designated authorities and teach to the "right answer," and students have been led to expect that this kind of teaching represents good education. Unless we provide another model and convincing activities to support it, why should students think otherwise? If you want to radically change your teaching methods to a more constructivist approach that uses lots of groupwork, how can you motivate students to buy into that approach?

What is the teacher's philosophy of good teaching? Examine her background as depicted in the case. How did her high school experience differ from the way she traditionally taught? How does it compare to your philosophy?

Purpose of groupwork

What do you think the teacher hoped to achieve through groupwork? Examine the first unit. How is it different from a more traditional unit? Were her aspirations realized in the unit? What evidence do you have to support your conjecture?

Student perceptions of the task

How did the students — particularly those in the problematic group — respond to the teacher's first unit? Why do you think Sarah and Roger responded as they did? It appears that the two other group members understood the main points of their section. They were the same students who were reluctant to go to the front of the class for their group's final presentation. How do you think they felt in this group? How could you provide support for these students?

Look at the text to examine how the teacher responded to their questions and biting comments such as, "You can't expect us to understand this stuff. That's why they hired *you* to be the teacher." These are difficult moments for any teacher. Evaluate the teacher's tactics. What alternate strategies could she have used? What are the risks and benefits to each one? It's more difficult to come up with real words than propose a general strategy; what exactly would you say?

Teacher and student roles

Teacher role. This teacher defined her role as a facilitator or coach. As facilitator, she recommended resources and listened to the group's plan of action. When a group asked her to validate their action plan, she responded with questions for them to reflect on. Her refrain was, "Answer a question with a question." What are the benefits of this stance? Can you think of any problems with it? As you define your role, how does it compare with the way this teacher defined hers? Give some examples.

Student roles. To ensure that group members participated, the teacher assigned each member a specific role. These roles — facilitator and presentation specialist, reporter and homework specialist, encourager and evaluation specialist, and materials and equipment specialist — were designed to free the teacher from the burden of management. If students take responsibility for directions and materials, for example, it makes it possible for teachers to attend to students' thinking and learning. What are the advantages of these role assignments? Are there any disadvantages? What might happen if there were no role assignments?

Preparing students for groupwork

The narrative doesn't include a description of how the teacher introduced her approach to teaching, yet this doesn't mean she had no introduction. Since we can infer from the narrative that the new teaching methods were radically different from what the students were typically exposed to, it would have been important to motivate and prepare them for the new experience. How would you introduce this kind of teaching to students? What kinds of activities would you use to prepare them for cooperative and collaborative behavior in their groups (see Case 10)?

Assessment

Assessment is a theme in many of the cases in this volume. Teachers — especially secondary teachers — take accountability seriously and wonder how to adequately assess group projects. Examine the group evaluation sheet that the teacher developed collaboratively with the whole class. What do you think of this as a group evaluation tool? No mention is made of any form of individual assessment for the unit. Do you think individual assessment is needed? If yes, what form would it take?

Crafting groups

The issue of how to formulate a group runs through many of these cases (see, for example, Cases 7 and 10). This teacher took the time to craft groups in specific ways. What were her criteria? She wonders why this particular group of four was not working. What's your analysis of the problem? How would/do you group students in your classroom?

Action plan

Examine how the teacher handled the group's failure to complete its task. If you were the teacher, what would you have done? How would you have responded to the challenge, "I guess Mrs. Stevens will have to teach this if anybody is going to learn anything about the effect of pressure"? Have students ever challenged you like this in your classroom? What did you do? As you think about the possibility of similar situations arising in your classroom, can you generalize about how to deal with these challenges?

Reflections

At the end of the case, the teacher raises two questions: 1) Why are the students who appear to have difficulty working in groups more motivated and involved when the class is taught in a traditional lecture/discussion mode? 2) How can I motivate students to take responsibility for their own learning? (These are similar to the questions raised in Case 2.) How would you respond to both questions?

Case 5 Facilitator Notes

EXPLORING ALTERNATIVE ASSESSMENT

In this case, the teacher delves into the serious dilemma of how to assess student learning that is the result of groupwork. As she talks about her dilemma, the author experiences a gamut of emotions: from acute anguish at the mere thought of evaluation, to exhilaration because her students were *doing* science, and deep astonishment that, in spite of successful groupwork, students didn't perform any better than they had when using more traditional approaches.

After rethinking the connection between instruction and assessment and listening to her students' comments, the teacher decides to develop a new test that is closely linked to the instruction and to involve the students in the process. When the new test is administered, scores improve and the students feel that the new test assesses their learning better than the traditional one. For the teacher, the experience raises fundamental questions about assessment, traditional and alternative, and leads her to reexamine her philosophy about the goals and practices of student assessment.

CONTEXT

This case is from a suburban high school that has students from some of the richest and poorest neighborhoods in the area. The chemistry classes reflect the school's diverse student body. Recently, the teacher added Complex Instruction to her teaching repertoire. During the first month of school, she used this particular model of groupwork to teach a unit on density, which is typically a difficult concept for students to understand.

QUESTIONS AND ISSUES

In this section, we have framed major issues from *Exploring Alternative Assessment* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

[Although the central dilemma raised by the author of this case is alternative assessment, because of the close connection among assessment, instruction, and instructional tasks, you may wish to explore the learning tasks presented in the case.]

Purposes of groupwork and examination of the task

[After seven years of teaching, this teacher added Complex Instruction to her repertoire of teaching techniques. She created a four-day unit, using the curriculum design principles of this model of groupwork.

As mentioned in the introductory chapter, in Complex Instruction, activities of a unit are organized around a central concept, question, or "big idea." As students rotate to complete the activities of a unit, (hence the four days dedicated to it) they encounter this idea, question, or concept in different contexts or settings. Thus, they have multiple opportunities to grapple with the material, to explore related questions, to look at different representations, and to think of different applications. In this case, the teacher did not orient the students to the central concept before they began the activities. Rather, she planned for them to work with the concept of density as they performed the activities.]

How and why would groupwork contribute to students' understanding of a difficult concept such as density? In what ways would the rotations contribute to deepening of this understanding?

As mentioned above, the teacher chose not to introduce the concept of density explicitly, probably so as to avoid preteaching the concept and thereby short-circuiting the students' discovery of the scientific properties of density. What would be the advantages of this strategy? What would be the disadvantages? If students didn't know that there was a central concept embedded in the tasks, wouldn't they be somewhat baffled by the seemingly disparate activities? When would you choose to introduce a big idea or central concept, and when would you leave it up to the students to gradually formulate their own theories and understandings?

[In many discussions, science teachers were particularly intrigued by the following issues:] What were the scientific objectives of the different tasks of the unit? How was the central concept of density reflected in each of these tasks? What would be the teacher's role in making the connection between these tasks and the central concept? Among the various tasks? Among density and other scientific phenomena or concepts?

How could the teacher use students' reports during the "scientific conventions" to make connections among the various activities, reinforce the central concept, and deepen students' understanding? How did students build upon their own work in the groups and their classmates' reports during the "scientific conventions?" [Probe for modified questions that had been generated by the class.]

The teacher is pleasantly surprised by the metamorphosis her students underwent. [Probe for the participants to question whether these were the same students.] How do you account for this metamorphosis? [Have participants look closely at the individual reports included in the case showing what students were required to discuss and think about.]

What could the teacher mean when she says, "(Some) students refused to use the term 'mass' just a few days ago"? In your opinion, why was the difference between Coke and Diet Coke such an engaging question for them?

Depth versus breadth

[Although pleased with how the unit went, the teacher is concerned about spending four days on one topic. Traditionally, because she was worried about the amount of material that needed to be covered in this chemistry class, she spent only one period on the concept of density. Many teachers (especially at the secondary level) are deeply concerned with the tension between curriculum coverage and in-depth exploration of selected topics; in many cases, teachers find they can't make a personal choice because of administrative edicts, pressures to prepare students for various kinds of tests, or department-level or grade-level decisions.]

What are your thoughts about the dilemma of depth versus breadth? Under what circumstances, if at all, do you have the freedom to make a choice between covering more material or exploring a concept in greater depth? How do pressures external to the classroom and to learning influence a teacher's decision? If you were to choose to spend a whole week on one topic (rather than one period like other teachers in your department or at your grade level), how would you defend your decision to your colleagues? To your students? To their parents? What arguments would you bring before them?

The first quiz

[Copies of the actual quizzes given to the students are included in this case study. Please examine them carefully when discussing the case.] Why was the teacher astonished as she graded the quizzes? What made her think that her students would do any better this year than in previous years? As you think about the activities, the individual reports, and the questions on the first quiz, is it surprising the students didn't do better?

Although the learning tasks and the instructional approach were highly innovative, the first quiz was traditional in format and content. How do you think that happened? Why didn't the teacher change the format of her assessment along with the task and its delivery?

How is math connected to the first quiz? To the activities of the unit?

The teacher expresses strong emotions: she is crushed. The quiz is the first benchmark by which she can judge the effectiveness of a new teaching approach. What do you think about her reaction? Many teachers have shared with us the deep disappointment they felt when an instructional innovation didn't work for them in the way developers promised it would. Have you had similar experiences? How did you feel? What did you do?

What were the students' feelings about the results of the quiz? One student said that because he didn't know math, he couldn't succeed on this quiz. What do you think about this explanation?

There seems to be a great discrepancy between the results of this quiz and the teacher's perceptions about what students knew and were able to do. Have you found yourself in similar situations? What happened? What did you do?

The second quiz

How were the questions designed by the students similar or different from the questions on the first quiz? What do you think about their suggestions? How could singing a song or writing a story reflect students'

understanding of a scientific concept? How would you describe the difference between traditional and alternative assessment?

Carefully examine the second quiz. In what ways is it different from the first? In what ways is it similar? To what extent does the second quiz have the potential to capture students' understanding of the concept of density better than the first?

The teacher proposes a number of explanations for why the students might have been more successful on the math portion of the second quiz than on the first. How do you assess her explanations? Do you have additional explanations the teacher didn't include?

Assessment

This case prompted the teacher to re-examine her philosophy of assessment. In your opinion, what is the link between instruction and assessment? What should this link be? How can instruction and assessment be linked more closely?

Some teachers felt that when she developed the unit, the teacher should have also developed a different quiz that would reflect her goals for the unit. What do you think? What would this new test have looked like? In your opinion, do you have to redesign assessment each time you redesign a task or redesign the instruction?

The teacher planned to use various assessment tools: the individual reports, the quality of the group product, and the quiz. What kind of information about students' understanding can be gleaned from each type of assessment? How is the information from the various assessment tools complimentary? Could information about students' learning from the various assessment tools be potentially contradictory?

How is the time when students report their findings like a scientific convention? What specifically can the teacher find out about what students understand and are able to do at the occasion of these scientific conventions?

In Complex Instruction, every student in the group completes an individual report at the end of each activity. Carefully examine the example of the individual report included in this case. How does completing such a report contribute to holding individual students accountable as they work in groups? To further developing understanding of a difficult concept, beyond the group discussion? How does completion of individual reports stimulate substantive discussions about science?

The teacher also used the group products for assessment. To what extent do you feel it would be important to evaluate the group as a whole? The group processes? The products of the group? What is the responsibility of the teacher in making sure that the important information is included in group presentations? What would you do if the students presented misinformation? [See Case 1.]

Some teachers were surprised that students in a high school science class would be asked to write journal entries. What kinds of information did the teacher gain from these journals? What is your opinion of the value of this information in general and for a high school science class in particular?

In this case, we don't know how the teacher responded to the journal entries. If your students were to write journal entries in your class, what would you do with them? How can journal entries be used for student assessment? For teacher self-assessment?

Interactions with colleagues

In a discussion with a colleague, the author commented that she had noticed significant changes in her students. They seemed to appreciate the alternative test and the fact that they took part in the decision about how they were to be evaluated; they appeared more confident and were putting more effort into the course than previously. The colleague, however, had a less positive view. She felt that giving an alternative test was a disservice to the students who will have to function and succeed in traditional settings. The author was exasperated. Have you ever found yourself in a similar situation? What happened? What did you do? What could this author do? What would your response be today if you were to find yourself in a similar situation? What would you say to a colleague? To a principal? To a parent? To a student?

CHAPTER II:
FACILITATING GROUPWORK INTERACTIONS

A. Individuals and Groups

Case 6
Facilitator Notes

STRUGGLE WITH THE DYNAMICS OF GROUPING

The teacher in this case struggles with how to group children constructively and shares her strategies. The narrative follows one particular bilingual student, Sam, through three different groupings during the year. It describes what happens within each group and how the group dynamics appear to affect Sam's behavior. How to integrate limited English students into classroom activities, how groupwork can benefit or hinder such students, and how to evaluate student growth are among the questions this case raises.

CONTEXT

After teaching special education for 15 years in an inner-city school, this teacher decided to switch to regular education and was assigned a second grade class. She participates in the Fostering a Community of Learners (FCL) research project created by Ann Brown and Joe Campione at the University of California, Berkeley. FCL is an approach to groupwork for which deep disciplinary understanding and the development of skills of critical literacy are central. Students engage in collaborative research, then share their information and understandings through jigsaw and other activities, and finally apply what they have learned to a new and more difficult task that is reported in a public exhibition or performance. In an FCL classroom, groupwork activities elegantly synthesize several well-regarded approaches to groupwork, e.g., jigsaw (Aronson), reciprocal teaching (Palinscar and Brown), group investigation (Sharan), and writing process groups (National Writing Project).

QUESTIONS AND ISSUES

In this section, we have framed major issues from *Struggle with the Dynamics of Grouping* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

Cooperative magic

This teacher hoped groupwork would accomplish many things. What were her specific aims? How realistic were her expectations? What do you hope to accomplish with groupwork?

Why should we craft groups?

Unlike teachers who group children randomly or with little planning, this second grade teacher feels strongly that crafting groups in particular ways strongly influences how children learn. Yet, no matter how hard a teacher tries, it's sometimes difficult to predict how the complex dynamics within groups will affect individual children. Why is this teacher so preoccupied about grouping? [Note that this teacher keeps students in groups for at least three or four weeks. This strategy may be different from the norm, where teachers group students for specific tasks that last no longer than three or four days.]

How should we craft groups?

What is this teacher's philosophy of grouping? What were some of her strategies for placing children in groups? [Probe for stages of children's collaboration.] How do her strategies compare to the ways you group children? What are other strategies of grouping? What are the risks and benefits of each?

Sam's group experiences

What were some of the problems that arose in Sam's first group? What did the teacher do? What else might she have done? What are the risks and benefits of each suggested strategy? What would you have done in this situation? Why do you think Sam ended up at the bottom of the pecking order in his first group? What happened to Sam in subsequent groups? How do you account for the change in group dynamics from the first group to the last?

The teacher was concerned about Sam's academic success relative to his interpersonal problems toward the end of the year. Some experts who read this case were not surprised at Sam's "attempt to wield power" in his group when his English skills improved. One commented, "That's not surprising. Wouldn't you do the same if no one ever listened to you?" What do you think?

Shifting the focus from Sam

[Discussions often focus on how the group affected Sam's behavior, ignoring how Sam's participation affected other members of his groups. If discussion participants don't raise this issue, the leader should raise it to ensure that participants consider the case from multiple perspectives.] Examine how Sam's presence affected the members of each of the groups he belonged to. How did the teacher handle each problem that arose? What are alternate strategies she might have used? What are the risks and consequences of each?

The teacher alluded to other community-building activities she did with the class, but didn't describe them. What might some of these activities be? What do you do to build community in your classroom?

Group effects on skills

Sam's verbal skills improved through groupwork. However, some of the teacher-author's colleagues felt that the emphasis on groupwork prevented Sam from developing independent reading and writing skills. What do you think?

Levels of interaction: Cooperation versus collaboration

In her depiction of the second group, the teacher initially described how the children worked cooperatively, though not collaboratively. It appears the group began to show evidence of collaboration during its work on the math story about Saint Ives. What's the difference between cooperation and collaboration? [Probe for the response: cooperation exists when students respect one another and do their jobs independently; a higher level of group interaction is collaboration, during which students work together on projects and share thoughts with one another.] Examine the text for the teacher's account of Sam's second group. What's the difference between the two episodes? This teacher strives for evidence of *both* cooperation and collaboration during groupwork. [As she stated in a personal communication to the editors, however, some groups never reach the collaborative mode.] Think about the small groups you use or have observed. Do they show evidence of cooperation and collaboration? Give some specific examples.

How and when to intervene

Deciding whether or not to intervene while a group is working is one of the most difficult problems of groupwork. It is a theme that runs through most cases in this volume because it raises dilemmas that go to the heart of successful groupwork. These include delegating authority to students and respecting student teams to make their own decisions. The teacher wonders whether and how to intervene on several occasions when she sees problems in Sam's groups. What actually happened in each situation? What did the teacher do? Are there other strategies she could have used? What problems might arise with each suggested strategy? What would/do you do in similar situations? What principles of teaching should you consider when making your decision?

**Case 7
Facilitator Notes**

PUZZLES OF A WELL-CRAFTED GROUP

This case highlights an English teacher's struggles placing students in groups. The narrative describes his efforts to craft a group around an unusual student who, as a result of his background, "stands out" from the other students in an honors class. Despite the teacher's careful attempts to assemble a productive, supportive group, the students fail to collaborate, which results in a weak presentation to the class. What surprises and puzzles the teacher is that, despite the group's inability to work together on the group presentation, each student's written essay reflects a solid understanding of the material studied during the group activity. The case provides opportunities to discuss the rationales teachers use to place students in groups and affords comparisons with Cases 3, 6, 9, 12, 15 and 16. A second issue for discussion is the range of groupwork tasks in the English classroom.

CONTEXT

This English teacher of six years' experience teaches in a suburban high school. It's the policy of his school's English department to track students. The author admits his "frustration" with this policy.

This teacher utilizes a process-oriented approach to writing instruction. That is, he places as much value on the process of generating written text as on the product of the final text. In process-oriented writing classrooms, the teacher devotes attention to helping students understand the unique and recursive nature of writing by introducing the various components of the writing process — for example, generating and organizing ideas, composing a draft, soliciting responses, and making revisions based on responses. In this class, the teacher has his students meet regularly in writing response groups to share and critique drafts of assignments before they are submitted to the teacher. The teacher prepares students to work in writing response groups by modeling helpful feedback and having the class generate criteria for response.

QUESTIONS AND ISSUES

In this section, we have framed major issues from *Puzzles of a Well-Crafted Group* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

Crafting a group

The teacher acknowledges his puzzlement, and even ambivalence, over how to craft productive groups, taking "some careful thought" to "assemble a group around Daryl." What are his concerns about Daryl? What rationales or "precepts for group construction" does he offer for the selection of each member of the group formed around Daryl? How has the English department's policy of tracking been factored into the teacher's decision-making? After the activity, how does the teacher reevaluate those precepts? What do you think of his "precepts for group construction"? How do they compare to the precepts you use when forming groups?

Daryl

How does the teacher describe Daryl? In what ways does the teacher feel Daryl stands out? How do you think the other students perceived Daryl? How do you think Daryl feels in this class?

The groupwork task

What are the specific requirements of the assignment? What are the teacher's instructional goals, and how does he reevaluate them after the activity is completed? The teacher had placed the students in writing response groups for five to six weeks prior to this groupwork project. Writing response groups do not, typically, require the same degree of interdependence that well-designed groupwork tasks call for. How had the students' work in writing response group prepared them for the requirements of this first extended project?

Reaching consensus

The task requires the students reach consensus over which poem they want to present and teach to the class. In your opinion, why does the group struggle to reach consensus? How significant a role did the actual poems in the anthology play in the group's struggle to reach consensus?

The teacher describes his "increasing disappointment" as he observes Daryl's group attempt to reach consensus. In vivid detail, he captures their body language and conversation. How do you think each student in this group felt? What is your analysis of the group's problem reaching consensus? The course to take when the group is having group process problems can be less obvious than when the group clearly is laboring under content-related misconceptions. Sometimes, we hesitate to step in, because we don't know how to help them get along or because we hope the students will work things out. How does the teacher respond to the group's struggles? What might the teacher have done to help the students learn how to reach consensus? What strategies do you use to teach students how to reach consensus?

In groupwork, should consensus always be the aim? In groupwork activities, what room, if any, is there for respectful disagreement, rather than consensus? What do you think might have happened if the task had not required consensus?

The teacher remarks that the group had "worked together off and on for five to six weeks, primarily in writing response groups." How do the interactions required for writing response prepare students for the give and take of reaching consensus?

The written paragraphs

The high quality of the students' written analyses of the poem "Gravy" surprises the teacher. Why do you think he is surprised? How do you account for the students' success on this part of the assignment? What relation do you see between the written paragraph and other parts of the assignment?

Student evaluations of the activity

The teacher asks each student to evaluate his or her contribution during the groupwork activity. He describes the written response required of each student. What information does he learn from these evaluations? How do you think this information helped to shape his reflections upon this lesson? What are other strategies for student evaluation? What are the risks and benefits of each?

Case 8
Facilitator Notes

MY STRUGGLE WITH SHARON

The focus of this case is individual students who tend to be bossy and disruptive during group activities. The teacher attempts to craft a group capable of cooperating with a difficult student and completing a rather complex activity. However, the difficult student, Sharon, disrupts the group from the very beginning. When Sharon and another group member, Alicia, each independently ask to leave the group, the teacher assigns Alicia to another group and leaves Sharon and the others to fend for themselves. Though Sharon's group is able to complete its book and present it to the class, the teacher questions her handling of the episode.

CONTEXT

This case is from an ethnically diverse school which is 60 percent Hispanic and 25 percent Caucasian. The remaining 15 percent of students are African American, Pacific Islander, and Middle Eastern. In this particular 8th grade language arts classroom, half the 24 students are labeled as Resource Special Education Pupils.

QUESTIONS AND ISSUES

In this section, we have framed major issues from *My Struggle with Sharon* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

Examining the task

There are several reasons groups fall apart. One is students who are either disruptive or don't share in the task (see other cases in this section). But often, when we analyze what happened from different perspectives, we find other explanations that are not so apparent. Let's look at this case from several lenses.

One explanation for group failure that rarely receives enough attention is the nature and purpose of the group task itself. As a teacher in one of our sessions said, "Groupwork has become such a fad, we often don't think carefully enough about why we use it in our classroom." Look closely at the nature of the task in this case. What was the teacher's purpose for her unit? Was groupwork the best way for her to achieve its purpose? What are the advantages? What are the drawbacks? What did the teacher hope to

gain from putting students in groups for this task? What might she have to lose? In general, what do/should you consider when you use groupwork in your classroom? What do you hope to gain from these activities?

While planning this unit, the teacher noted that students had previously worked on numerous group projects, but none were "so-encompassing." This project certainly differed from what she had done in prior years, when students wrote their stories individually and sought peer response from one other student. Do you think the task the teacher designed is a challenging one? What would make it challenging? How might a group think about how to tackle this task? What decisions are required? How can students be helped to learn decision-making processes? [See the discussion of reaching consensus for Case 7.]

Crafting a group

This teacher took grouping seriously. As she planned her unit, she carefully placed students in groups taking into consideration their ability, skills, and personality. And when half the class was absent, she re-crafted the groups according to students' achievement levels — high, medium, low, and non-achievers. Sharon, Roy, Alicia, and Charles were each described according to one of these achievement levels. Look at the teacher's description of each of these students. Describe each of these students using the teacher's language. What do you think of the descriptions she used of "low achiever" and "non-achiever"? What do you think of the criteria she initially used to group students? How do those criteria compare to the ones she used for the second set of groups? Other teachers who've read this case have wondered what the teacher did when the 12 absent students returned to class the following day. What would you do?

In retrospect, the teacher questions her strategy of grouping and suggests she might not place Sharon with other strong personalities like Alicia in the future; she hopes Sharon will "learn to cooperate with all students, not just the ones that follow her." What are the implications of this strategy for Sharon and the other students in the classroom? What would/do you consider when you place potentially uncooperative students in groups?

At the end of the narrative, the teacher raises a question related to the notion of grouping in general. She asks, "Should I form groups by lottery and not try to make all groups equal in abilities and skills?" What do you think of random grouping?

Roles in groupwork

Like the teachers in Cases 3 and 10, this teacher assigns a procedural role to each student to help him or her take responsibility for keeping the group on task and working productively. These roles, which include facilitator, reporter, recorder, and gatherer/harmonizer, are designed to free the teacher from the burden of management. If students take responsibility for directions and materials, for example, it makes it possible for teachers to attend to students' thinking and learning.

What was the teacher thinking when she gave the role of reporter to Sharon and the role of facilitator to Alicia? How do you think each girl perceived the reasons for her assignment? How might the other group members have viewed these assignments?

What do you consider to be the value of roles? Are there any drawbacks? What might have happened in the group in this case if there were no roles? What might have happened if the roles were assigned differently?

What do we know about Sharon and Alicia?

[Let's try to get multiple perspectives about Sharon and Alicia.] How does the teacher describe each of these girls? Why might Sharon act the way she is portrayed in this group? How do you think the girls regard each other? How do the other students regard each of them? How do you think the teacher feels about the two girls? How do you think they feel about the teacher?

Intervening in a dysfunctional group

As many of the other cases in this volume illustrate, intervening constructively is one of the most common problems in groupwork; it is no different here. Look closely at what happened to students in Group #3 soon after the students were assigned to their groups. What was the teacher's intervention strategy when she saw trouble brewing? Why did she only talk to Alicia? What were the ramifications of this strategy for Sharon and the others in the group? Some teachers feel that this tactic was demeaning to Sharon. What do you think? What evidence is there for this interpretation?

At the end of the narrative, the teacher wonders, "Was I wrong in encouraging Alicia to cooperate instead of focusing on Sharon and encouraging her to be more cooperative?" She also notes that, "Even non-achievers like Sharon want to be successful." How might the teacher have been more helpful with Sharon? What are the risks and benefits of each strategy?

Should students be allowed to leave a group?

There are always kids who may want to leave a group in which they're not happy. Some teachers don't force the issue and allow students to work alone if they choose. Others feel it is important for students to learn how to get along with everyone and insist that the individuals solve their personal problems (see Case 9). In this case, however, the teacher gave mixed messages. When Sharon and Alicia independently asked to leave the group, she refused Sharon's request but acquiesced to Alicia's. What were the ramifications of this action? On Sharon? On Alicia? And on the rest of the group? What might have happened if the teacher had not moved Alicia? What would you have done?

Assessment

Using appropriate assessment is one of the most critical factors in successful groupwork. In this case, the teacher gave one common grade for the group project, part of which was based on cooperation. What do you think of this grading system? Is it fair to give each group member the same grade, regardless of the amount of work he or she put in? Some educators think that there should be two grades for each group project – a group grade and an individual grade. As you think about assessment for groupwork, what should you consider?

At the end of the narrative, the teacher raises the following question: "How can I distinguish successful student growth in this particular project if I allow students to move to other groups when they encounter problems?" How would you respond to her question?

Incentives for groupwork

As Alicia said to the teacher after making her presentation with her new group, "It was easier to work with a group that wanted the story to look good and sound good. I liked working with a group that found positive, fun solutions." Anyone who has experience as a group member knows that Alicia is correct. And no matter how committed to groupwork one may be, one experience in a dysfunctional group can be very sobering. What are the incentives for high-achieving students like Alicia to work with others who may not have the same standards that she has (see Case 16)? What are some general principles that teachers can use when students have different standards of achievement?

My struggle with Sharon

How do you interpret the title of the case? What is the nature of this teacher's struggle? How do you explain her struggle? Have you ever had struggles with a particular student?

Case 9 Facilitator Notes

TO BE, OR "NOT"

This case revolves around two students who can't get along with each other. The teacher avoids putting them in the same group; but one day, when he is too preoccupied to notice, the luck of the draw puts them together. Disaster strikes. Their quarreling leads the teacher to stop the group. He asks the group to come up with a plan for how the two students can work together, and they do. The teacher reflects on what caused the conflict and reports on conversations with both students, so we are provided multiple perspectives on the situation. The teacher also shares his beliefs about how students need to learn to work with anyone, even if they say, "Not him!" or "Not her!"

CONTEXT

The class is an 8th grade physical science class at a middle school in a large California city. Most students come from the surrounding middle-class neighborhood; the rest are bused from other areas of the city. The teacher is a male in his fourth year of teaching who sees himself teaching "kids, not subjects," and places considerable emphasis on social skills, problem solving, and decision making.

QUESTIONS AND ISSUES

In this section, we have framed major issues from *To Be, Or "Not"* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

Intervening in a dysfunctional group

This case is written in two parts. The first section ends with the group arguing and the teacher saying to himself, "What was I to do?" One way to handle the case discussion is to do it in two parts, giving the group Part I only and asking them what they would do. This focuses their attention explicitly on solving the immediate management problem, and lets them suggest a variety of intervention approaches, before they read (and discuss) what this teacher actually did. What could a teacher do at this point? What are the choices? What are the risks and benefits to different approaches? What are some signs teachers use to determine when and how to step in?

After reading the second section, participants can respond to the intervention that the teacher chooses. What do they think of this intervention? Notice that the teacher places the responsibility for solving the problem

on the group. What are the benefits and risks of this approach? Under what conditions is it appropriate? What experience have teachers had with this kind of approach? How can it be structured to work successfully? Some teachers have commented, for instance, that they would never send students out of the room alone. Is this an issue? Some people feel that the ending is too rosy. They believe that it worked out well because Caroline and Dennis are highly motivated students. What evidence is there for this interpretation? Do you think it would have worked out differently in another setting?

What difference would it make if no safety factors were involved? Would that allow the teacher to wait longer, or to intervene in a different way? Is it ever appropriate to let a group fail?

Some teachers feel there was a "self-fulfilling prophecy" operating here, that the teacher expected the students not to get along (hence his "I told you so" voice in his head). Do you think his expectations led him to intervene too soon? Did his expectations influence the way that he intervened?

Why is the group dysfunctional?

[We can all relate to the general situation raised in this case — a dysfunctional group. Teachers are always concerned about this and sometimes ask why certain groups fall apart — sometimes the ones we predict and sometimes not. This case offers us a chance to do some detective work about this particular problem. The author focuses on the personalities of these two students as the source of conflict (see, for instance, his concluding paragraphs). But the case as a whole offers a number of clues, including the comments of the two students.] Why did this group function so poorly?

Preparation. What training did the students have for working in groups? The writer said that social skills were a "frequent topic of conversation" in the classroom, but he did not mention any particular training in group skills. When the group fell apart, he assigned a "social skills activity" of coming up with an action plan for completing the lab. Do you suppose that "developing a plan" was a regular part of their approach to groupwork? How can students be prepared to work in groups?

Was the task appropriate? How did the nature of the lab activity contribute to the situation? Caroline felt that their problems were exacerbated in the group because everyone wanted to get involved, but there wasn't enough for everyone to have something to do. Comment on her observation. Each student had to complete an individual report, but there was no group product, no group accountability. What difference might this have made?

Dennis suggested that the task should be structured to "give everyone a specific job." What about this idea? He went on to define this as "allowing each person to participate without interference from the others." Was a group task designated in this situation? Why were they working in a group?

"Control freaks." Dennis uses the term "control freaks" to describe himself and Caroline. [Most teachers will readily relate to this description.] What experiences have you had with students who like to be in charge? How have you dealt with such students, who often have a difficult time with groupwork? Compare this situation to the one in Case 15. Some sociologists would describe this as a conflict between two high status students. How might it be useful to analyze the situation in these terms?

Gender issues. To middle school teachers, it may be no surprise that this conflict is between a boy and girl. Students at this age are often intensely interested in members of the opposite sex and in working out issues of peer relationships. The teacher considers the possibility that this is a "love-hate relationship." Do

you think gender was a significant factor in this situation? If so, what difference would that make to how the teacher might handle the situation? Would it have been different with two girls? With two boys?

Crafting groups

One issue raised by this case is how a teacher assigns students to groups. This teacher believes in random assignment. What are the advantages and disadvantages of this approach? The teacher believes that students need to learn to work with anybody, and that random assignment accomplishes this. Do you agree?

"Nots"

The writer uses the term "nots" to refer to students who others don't want to work with. This concept often sparks recognition and discussion among teachers. Dennis and Carolyn are "nots" to each other, but they aren't really typical of the sort of student no one wants to work with. Typically, "nots" are students who are generally unpopular; often they are low achievers and are avoided or teased by others. What experience have you had with students who are "nots"? What were these students like? What strategies did you use to increase their acceptance and participation?

<p style="text-align: center;">Case 10 Facilitator Notes</p>
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CONFRONTING ONE GROUP'S INERTIA

After completing a summer workshop on collaborative groupwork, this veteran teacher had high hopes for how groupwork would benefit her freshman reading class of low achievers. But one dysfunctional group of boys struggled and had nothing to show for their final presentation to the class. Instead, they admitted that they hadn't been very serious about the assignment. Though the teacher used this experience to explore responses to uncooperative group members in her class, she wondered what effect this experience had on the boys involved. This case provides rich opportunities to discuss how introducing a class to groupwork and working with dysfunctional groups. It raises many of the same issues as Case 4, "Do You Let Kids Fail?"

CONTEXT

The students in this freshman reading class were primarily African American and had reading scores between grade levels 4.0 and 6.8. Approximately 75 percent of the students in this class were bused daily from a community 15 miles away. According to the teacher, most of the students had trouble competing academically with other students and were "burdened with feelings of inferiority."

QUESTIONS AND ISSUES

In this section, we have framed major issues from *Confronting One Group's Inertia* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

Aspirations for groupwork

What did this teacher hope to accomplish from groupwork? What did she expect would happen? What actually happened?

Examining the task

This teacher's introductory groupwork task involved a set of activities designed to examine the poetic form of a given poem. As she stated in her case, the main purpose of the task was to help students develop cooperative learning skills, not to foster expertise in poetic verse. Several teachers have raised questions about the selection of this particular task for groupwork. Was it interesting and compelling

enough to engage the students? Could the students relate to the poetry discussed in class, let alone to the particular poem assigned to their group? Was the task at the appropriate level of difficulty for these students? These are important questions to discuss, because the success of groupwork often rests on the nature of the task itself. If we expect students to work cooperatively and collaboratively in small group settings, we must carefully design tasks that are intrinsically interesting, compelling, and at an appropriate level of difficulty. They must also require a contribution from all group members. Are there other criteria for selecting group tasks you would add? Given these criteria, what kinds of activities would you choose for groupwork?

Introducing the task

This teacher spent a lot of time introducing the task. What exactly did she do? [Probe for details about introducing the content of the lesson *and* group skill builders.] Would you add any other activities? As she said in the case, the trust-building activities set the stage for exchange by diminishing the students' fears of being laughed at. Do you agree that these introductory activities are enough to diminish the students' fear? What's reasonable to expect from this first group activity?

If the teacher had consciously or unconsciously communicated to the students that she was more interested in developing their cooperative learning skills than their expertise in poetic form, might this communicate to the students that the task itself wasn't really that important? How might this influence the students' desire to complete a given task?

Crafting groups

The teacher selected group members arbitrarily, which resulted in one group consisting of four boys with low reading skills. At the end of the case, the teacher noted that in the future, she would assert more control over grouping students heterogeneously. Assigning students to groups is a theme that several teacher-authors discuss in their cases. Do you purposefully craft groups? If yes, what criteria do you use for grouping students? Are there any advantages in randomly grouping students?

What do we know about the group?

What happened when the four boys discovered they were in a group together? The teacher inferred from their behavior that the boys didn't care if the group worked together. Do you agree? Why do you think they responded like that? Is it possible that the facilitator had trouble reading and feared getting embarrassed in front of his peers? The tic tac toe players asked to be placed in another group, but the teacher refused. What might this tell you about these boys' desire to finish the task? [Probe: Could this be a clue that they really wanted to achieve some success?]

It's often easy to cover up reading difficulties and other inadequacies in large group settings. But in small groups — where each member is required to make a contribution — it is much harder to hide these inadequacies. Given their history of academic failure, what did these boys have to risk in small group settings? What can you do to alleviate this situation?

Roles and responsibilities

Though the teacher didn't elaborate on how she used roles for managing each group, we can infer that she assigned specific roles to each group member. A list of duties for each role was on the board. What

were some of the designated roles and responsibilities? Why didn't the roles work in this situation? What might have happened if there were no designated roles? Are there any disadvantages or limitations to using roles? What alternative strategies might you use? What possible problems could happen with each one?

How and when should the teacher intervene?

When it became clear that this group had difficulty beginning its task, the teacher was uncomfortable and walked over to facilitate. But when asked how to get started, she resisted the temptation to provide substantive help; she feared it would discourage independent learning. How and when to intervene is a common theme in these cases. If you really want to delegate the responsibility for learning to students, you have to encourage them to look to one another for help. Yet, what is the teacher's responsibility if no one in the group understands what is required? Do you think these students really didn't understand the task, or were their questions a ploy to resist getting started? How could you find out?

This teacher let the group flounder for a couple of days, optimistically hoping that the students would begin to work on their own. But the group never coalesced and had nothing prepared for their final presentation to the class. Examine the teacher's intervention strategies on both days of the lesson. How would you evaluate her strategies? What are some alternative strategies she could have used? What are the risks and benefits of each?

Do you have similar situations in your classroom? What things do you consider when deciding whether and how to intervene in small groups? Given the discussion today, other case discussions, and your previous experience, how would you make your decisions? Give some examples.

Impact on students

Though the teacher used the group's dysfunctional experience as a learning opportunity for the whole class and felt that the discussion had some benefits, she questioned the impact on the four students involved. "If the effect was negative [on the students], were the merits of groupwork undermined?" The teacher in Case 5 had a similar dilemma and asked, "Should we allow kids to fail?" How would you respond to these questions?

CHAPTER II:
FACILITATING GROUPWORK INTERACTIONS

B. Low Status Students

**Case II
Facilitator Notes**

SILENCES: THE CASE OF THE INVISIBLE BOY

This case offers excellent opportunities to explore helping low status students in small group settings. The veteran middle school teacher uses new groupwork strategies she learned over the summer to help with a low-achieving student, but finds it is much more difficult than she had anticipated. Though the student probably participates more in small group tasks than he would have in a traditional setting, he makes no "miraculous academic recovery." More sober at the end of the year than at the beginning, the teacher reflects on what happened and comes to some painful conclusions.

CONTEXT

Working in an inner-city middle school with a predominantly African American student body, this teacher struggles to motivate her low-achieving students. The class is an 8th grade core of combined language arts and social studies. This year she pins her hopes on Complex Instruction (CI), a program she learned in a seminar (see the casebook introduction for a description of Complex Instruction).

QUESTIONS AND ISSUES

In this section, we have framed major issues from *Silences: The Case of the Invisible Boy* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

What does the teacher hope to gain from groupwork?

Look closely at the case. What specifically does she hope to gain from CI? [Probe for: low achievers improve academically as a result of participating in groupwork read text; student learning increases in proportion to student interaction.] Why would the teacher believe this? What evidence supports her beliefs?

Multiple perceptions about Dennis

What details does the teacher use to describe Dennis? [Probe for: member of B-Boys; artistic ability; poor academic record as compared with average test scores; low reading and writing; perceived by students as being weak intellectually; expert at being disengaged and making himself invisible; and standard answer is, "I don't know," when asked a question.] What might she think of him?

What's your analysis of Dennis's problem? What evidence do you draw from the narrative? Some teachers have suggested that he could be a passive resister — someone who uses power to manipulate a group to do his work. Others wondered, since he was a gang member, if it might be "uncool" to be a good student. What do you think? What are the advantages of using groupwork with Dennis? Are there any disadvantages?

Let's take a moment to imagine Dennis's experience in this class. From his perspective, what does he think about the class? Include in your conjecture what he thinks about groupwork, the teacher, and the other students.

Status issues

Some teachers speculated about the issues of power that are involved in status interventions. They wondered what risks there are to the learning community (classroom) if they set themselves up to confer status on students. Do you agree? What are some other ways to provide status intervention? What are the short-term and long-term consequences of your ideas?

Intervention strategies

This teacher poignantly describes her struggle finding opportunities to "assign competence" (publicly recognizing his contributions) to Dennis. It was much harder than she had anticipated. As she described in the case, he rarely did anything that warranted recognition. Waiting for an opportunity to provide such recognition is a common problem for teachers with low status students (see other cases in this section). Teachers know the importance of providing status interventions and are frustrated when they find few appropriate occasions.

Early in the year. What intervention strategies did the teacher actually use with Dennis (e.g., conferencing with Dennis and other students; grouping him with supportive students; and assigning tasks that required artistic ability)? Can you suggest other tactics? What are the risks and benefits of each?

Were there any missed opportunities that merited public recognition? Some teachers suggested that the teacher missed an opportunity by not drawing attention to the metaphor of the tricycle which Dennis drew in November. How might she have used it?

Some teachers were concerned about the kids who ended up in Dennis's group and wondered how to support them. What do the other kids think about Dennis? How difficult is it for some group members when kids like Dennis don't appear to be contributing their share to the assigned task? What strategies could you recommend for supporting Dennis's group members? What are the tradeoffs for each?

Audio-taped group meeting. In April, the teacher audio-taped one of the small group sessions to see if she could understand why Dennis hadn't flourished under her "tutelage and Complex Instruction." What happened during this session? What did the teacher do when she saw that Dennis wasn't engaged in the group task? What was the reaction of the other group members? When the teacher asked how they were making Dennis feel part of their group, Dennis replied, "I helped answer the questions." Later, he explained, "They're letting me discuss Carroll. They're talking about how she lived and stuff." How did the teacher interpret these comments? How do you interpret them? Was he engaged in the task? Did he contribute?

Silences

Several teachers have questioned the term “silences.” Who is silent? Is it only Dennis? What about the teacher? Aren't the students in Dennis's groups also silent about his participation in group activities? Why is everyone pretending that Dennis is contributing? Did the class perceive that they had to protect Dennis for some reason?

After listening to the tape several times, the teacher had to admit to herself that Dennis never contributed to the group's discussion. What is the impact on the group when one person remains silent? How much can you expect from Carmen and Tiffany, who worked on the task? How responsible *should* they be for Dennis's contribution? What about Tonesha? She also didn't appear to contribute.

What did the teacher learn about her perceived collaboration with Dennis's silence? Do you agree with her assessment of the situation? The teacher said that she was concerned about being too confrontational with Dennis for fear he would “close down even further.” What might have happened if the teacher were more demanding? What would/do you do in your classroom with students like Dennis?

Assessment

One of the most important criterion of successful groupwork is accountability — both individual and group. Some teachers wondered how the teacher graded students and whether she could have provided an alternate way of assessing Dennis. What do you think? The teacher-author doesn't mention how she assessed her students. But as you think about your own classroom, how would you hold students accountable for their efforts? What kind of assessments would you use?

What's realistic?

Many teachers wondered whether the case author was too hard on herself when she determined that she was a partner in Dennis's silence. Do you agree? What's realistic to expect from an inner-city middle school teacher with 36 kids in her class?

Where's the cooperative magic?

This teacher realizes that there is no “cooperative magic” in either Complex Instruction or groupwork in general (also see Case 6). She believes that these models of teaching offer increased opportunities for academic participation and can be positive experiences for the participants, but they do not “turn every kid into an ‘A’ student.” Do you agree with her assessment? What generalizations about groupwork can you make? What kind of roles and responsibilities should teachers assume to make groupwork successful?

Case 12
Facilitator Notes

LEARNING TO LISTEN TO ROBERT

The teacher in this case explores her belief that “low status children can drive classroom conversations in new and exciting directions.” These beliefs are tested by Robert, a child who has severe speech and communication problems but is capable of deep ideas about science content. The teacher describes her early observations of Robert and a time when she intervened in the group, leading them to listen to his ideas about science. While the episode was successful, and her belief confirmed, the teacher notes there was limited transfer — his group still ignored Robert. The teacher struggles with conflicting priorities; she sees her intervention as a way to “level the playing field so that all students can participate fully” and benefit from each others’ ideas. But she wonders how much intervention is needed and how she can capture the best opportunities and thereby limit her interference with students’ ownership of their learning.

CONTEXT

This case is authored by a twelve-year veteran teacher of elementary school science. She teaches a combination 5th-6th grade science class in an urban elementary school with a large minority population. This is her fourth year with the Brown/Campione project, Fostering a Community of Learners (FCL). FCL is an approach to groupwork for which deep disciplinary understanding and the development of skills of critical literacy are central. Students engage in collaborative research, then share their information and understandings through jigsaw and other activities, and finally apply what they have learned to a new and more difficult task that is reported in a public exhibition or performance. In an FCL classroom, groupwork activities elegantly synthesize several well-regarded approaches to groupwork, e.g., jigsaw (Aronson), reciprocal teaching (Palinscar and Brown), group investigation (Sharan), and writing process groups (National Writing Project).

QUESTIONS AND ISSUES

In this section, we have framed major issues from *Learning to Listen to Robert* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

Services for special needs students

Participants in a case discussion are likely to feel concern for Robert. They may wonder about the nature of his communicative disorder and what resources are available in the school or community to help him. They may suggest strategies they know for addressing his specific problem.

Robert's role

In the end, this case is not just about Robert, but about his role in the group. He has a lot to share; but because of his dysfunctional speech patterns, his group ignores him. What can be done to help the group learn to listen to him?

What is the activity structure in FCL? To what extent does it create group interdependence by giving everyone something to contribute? How does it structure students' interaction? To what extent do these things "level the playing field"? What would make this work more effectively? What's missing?

Modes of communication

Notice the heavy emphasis on talking in this class. Should there be other ways to present besides orally? Robert seems to be a skilled artist. His science diagrams are insightful. Can this mode of communication be made more prominent in the class or necessary to group tasks? How? Would this make a difference? Could the teacher "assign competence" to Robert? What might she say?

The teacher notes that students negotiated deep meaning only "after the discussion had slowed down enough so that children actually listened to each other." Could this be a problem that goes beyond Robert? How can students learn to listen to each other and develop ideas more fully? How can these skills be taught?

Teacher intervention

The teacher sees her own skilled and timely intervention as an important tool in changing the group process and deepening the discussion, yet she is keenly aware of the cost of her intervention. It shifts control of the group, at least temporarily, from students to teacher, detracting from her goal that students take maximal ownership of their own learning. This theme comes up in a number of cases. [See also, Case 1.] What experience have people had with this dilemma? When is it appropriate to intervene?

The teacher observed Robert for some time and noticed an opportunity that she had missed (the DDT discussion) before she was ready to seize an opportunity to intervene. How can teachers be prepared? What techniques have people used to help themselves notice and remember what's going on during groupwork?

Is it surprising the teacher's intervention had little long-term effect on the group?

Should she have intervened more? What is the teacher's responsibility to individual students? How much time do you take for one student in a class of 30?

Case 13
Facilitator Notes

THE CHANCE I HAD BEEN WAITING FOR

The teacher in this case is experienced in groupwork and specifically in using Complex Instruction. She believes cooperative groups are effective at helping students build abilities such as “reading and writing, balancing, building, drawing, estimating, hypothesizing, and measuring.” She also seems to believe cooperative learning is somewhat magical — that students can interact regardless of their language ability, develop a sense of belonging, become active participants, and build their self-esteem. Given this teacher’s beliefs and previous successful experiences, she was surprised when Miguel, a low status student, joined her class and “cooperative learning was not helping him at all.”

The teacher watched carefully for opportunities to identify Miguel’s strengths. In May, the teacher noticed a significant incident as he was working with his group. Unlike his groupmates, he was able to build a sturdy structure by following a diagram. The teacher gave him specific, positive, and public feedback (she assigned competence to him) and pointed out to the group that Miguel knew what to do and could serve as a resource for them. This intervention made a difference in Miguel’s subsequent interactions with his classmates.

CONTEXT

The setting for this case is a bilingual classroom. Like many of her students, the teacher is originally from Mexico. She relates with sensitivity to the struggles of her Spanish-speaking and English-learning students. The teacher utilizes Complex Instruction, and has added a special role — that of a translator — to each of the groups.

QUESTIONS AND ISSUES

In this section, we have framed major issues from *The Chance I Had Been Waiting For* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

The power of cooperative groups

[The teacher identifies the conditions that make for successful groupwork: tasks need to be rich and complex so students can learn from one another; the students should learn by doing; and the teacher should facilitate learning instead of imparting information. The teacher has been successful in using

specific strategies to encourage students to use their intellectual abilities, and she recognizes them for doing so. In many ways, this teacher has had significant positive experiences. Although she questions whether and when to intervene and how to equalize participation in groups, groupwork runs quite smoothly in her classroom.]

What are some of the necessary conditions for successful groupwork that this teacher talks about? How does the fact that she is an immigrant help her better understand her students? How, if at all, can students interact in groups regardless of their language proficiency? How can they learn from each other if they do not speak the same language? How does groupwork develop a sense of belonging? Increase students' self-esteem?

Miguel, a low status student

[Miguel, a third grader who didn't seem to become integrated into the classroom, is described by the teacher as "shy and withdrawn." These two words are often code words for low status students. Many teachers use them to describe students who rarely, if ever, participate in groupwork, who are perceived as slow, and who have few friends. These words place the burden of low-status on the students — if only they learned how to speak up, if only they were more friendly, if only they tried harder, if only they participated more.]

Have you known students like Miguel? How did they behave in the classroom? How did other students perceive them? How did you? Why do many students like Miguel become behavior problems? How did Miguel's home situation contribute to his difficulties in school?

[In this case, the teacher clearly recognizes the group's culpability in Miguel's situation: "When I observed Miguel's group I saw that the other members simply wouldn't give him a chance."] What is the relationship between Miguel's shyness and the group's unwillingness to give him a chance? How could students become more aware of the consequences of their behavior in groups? What are the consequences as far as group process of Miguel's low status?

It is important to realize that when grading for participation in groups, teachers often forget that some students don't participate because groups won't give them a chance! How would you evaluate and grade Miguel's participation in the group?

The teacher's intervention

What did Miguel do well? How was what he did an intellectually resourceful, problem-solving activity? What did the teacher's intervention consist of? Why did she make the analogy to the architect's work? Some teachers who have read the case argued that architects don't "build structures by following diagrams." What do you think? Why was it important that the group hear what Miguel had to say?

Was the teacher making "much ado about nothing"? Was her feedback out of proportion? What would you have said? What could Miguel have been thinking? What could his groupmates have been thinking?

What were the consequences of the teacher's intervention for Miguel? For his classmates? For the teacher herself? Some teachers were worried that the teacher's positive feedback to Miguel would detract from the status of the other students. How do you feel about that? [Note: Research shows that these types of intervention strategies do not decrease the level of participation of high status students.]

It's never enough

In spite of her successful intervention, the teacher felt she hadn't done enough. If only she had paid more and better attention to Miguel! Paying attention, carefully observing students, particularly low status students, is an important first step for a successful intervention. How can we ensure that we have the opportunity to do so?

Many teachers identified with the teacher's sense of guilt for not doing enough for Miguel. What do you think? If you had a student like Miguel, what else could you do to make him participate more in groups? To have his groupmates pay attention to him more? How could the teacher have created further opportunities for Miguel to be successful? How will his success in groups contribute to his increased success in academic tasks?

[Note: This case is best used as a companion activity to the video *Status Treatments in the Classroom*. Watching the video, we get to know Miguel as well as the teacher. The additional information provided in the case further helps to illustrate the context for the assigning competence treatment used in Complex Instruction. What is important in this case is not only the intervention itself (where the teacher explains to the group that Miguel's contribution is important to the group), but the fact that we actually see a student walk up to Miguel and talk to him immediately following the intervention.

Many Complex Instruction teachers identified with the case writer. On the one hand, they felt she belabored the point and overreacted to a small incident. On the other hand, they shared her sense of guilt about the fact that it wasn't until May, almost the end of the academic year, that she was able to see something Miguel contributed to his group.

CHAPTER II:
FACILITATING GROUPWORK INTERACTIONS

C. Interactions With Parents and Colleagues

Case 14
Facilitator Notes

THE EXTRA AUDIENCE OF CRITICS: HANDLING A PARENT'S RESPONSE

One of the political challenges facing teachers is to persuade parents that groupwork, particularly multiple-ability groupwork, is a beneficial instructional strategy. Frequently, parents are not aware or do not understand the rationale underlying groupwork in general, and the use of open-ended learning activities that include many different intellectual abilities (in addition to the traditional academic abilities of reading and writing) in particular. When this happens, the stage is set for a potential conflict between parents, who are worried about their children's academic advancement, and teachers, who have come to appreciate the benefits of groupwork.

CONTEXT

The author of this case is an intern teacher who, unlike most student teachers, has sole responsibility for a classroom. She is supervised by a cooperating teacher from the school site and a supervisor from the university. The author teaches in an upscale suburb in the San Francisco Bay Area where many parents are college-educated. They are involved in, and vocal about, how things should or shouldn't be run in the schools. While the teacher has few discipline problems and most of her students are highly motivated to succeed academically, this seemingly enviable setting is a mixed blessing: parent interest and involvement can be supportive, but, the "extra audience of critics" can be particularly intimidating for a teacher new to the profession.

QUESTIONS AND ISSUES

In this section, we have framed major issues from *An Extra Audience of Critics: Handling a Parent's Response* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

Examining the learning task

The learning task described in this case is the culminating activity of a unit on the Renaissance. While focusing on the distinction between the Renaissance and the Middle Ages, the students were expected to draw connections between Renaissance art and the major intellectual themes of the period. In that sense, this unit seems to be an excellent Humanities activity.

What was the teacher's rationale for her unit? What were her goals? Given "the big idea" of the unit, to what extent was it a natural fit for an interdisciplinary take on the Renaissance? What is the role of art education in this learning task?

How well did the teacher plan ahead? How well did she lay out the different components of the unit: the content, the process, and assessment?

Was the task a high level, intellectually challenging task, or might the parent have been right — just "fluff" and "crap"?

Assessment

The teacher feels that by a variety of criteria and measures (a test, essays, performances in class, high student engagement throughout the process, and peer grading), she had achieved her goal and the unit is a resounding success. The cooperating teacher and the department chair are "impressed with the complexity of the reports and the pride that the students took in posing."

What do you think about these criteria and measures for evaluating student learning? How well did the teacher achieve her goals? [Probe for the response: students made impressive connections between the paintings and general Renaissance themes.] Was there adequate balance between individual and group assessment? How successful was the teacher in holding students accountable — both as individuals and as members of a group? What would you consider adequate measures of success for this unit?

Given the overall positive outcomes, why would a single letter from one parent have such a devastating effect on this teacher? Why couldn't she relate to the letter in a more balanced way? How could the teacher have used her assessment measures to convince the parent about the positive outcomes of the unit? In general, how could assessment outcomes serve as a political tool to legitimize innovative instructional approaches?

Differing perceptions of teaching and learning

We can assume from the description of the setting that the parent is well-educated and perhaps holds an advanced degree. How might this parent's previous educational experience affect his perceptions of teaching and learning? Why would he be so concerned with time in the school being spent on seemingly frivolous activities? What might be his view of the various disciplines? [Probe for the response: Algebra is the real stuff...] He talks about another instance when he wrote a letter to a teacher. What could that letter have been about?

What are the costs and benefits of an involved and well-educated parent group? How might the teacher's and the parents' (many of whom have advanced degrees) conceptions of what teaching and learning are about differ? What might be the consequences of these differences?

How could the teacher have prepared the parents for her planned departure from traditional learning tasks and activities? To what extent was such preparation her responsibility? An option? Should the administration — the principal, department head, and cooperating teacher — have known about this innovative project in advance?

How could this parent and other parents be persuaded that art education is an important part of social studies or a humanities curricula? How could the teacher justify spending so much time on an activity given the time pressures of content coverage in high schools?

The parent's letter and the teacher's response

The parent's letter is rude, patronizing and, from the teacher's point of view, infuriating. The parent uses insulting language, from "hokey" to "crap" and "fluff." Such language demeans the teacher's ideas on effective teaching and learning. The parent considers the task entertainment, not serious learning.

What was the teacher's reaction? How would you feel if you received a letter like this? Why does one letter have so much power over the teacher? Often parents write letters to complain or protest. How often do they write letters to commend the teacher on a particularly successful assignment — a job well done? What are the consequences of such parent behavior for teachers' professional satisfaction and self-efficacy?

How might Sara have felt about her father's letter? What might have been her role in this incident? In your opinion, did Sara share her father's feelings? Why did the teacher feel the need to reevaluate her relationship with Sara? Could she have thought that Sara misrepresented the assignment?

The teacher responded with a short note. What do you think about her response? Are you satisfied with her letter? Did it give you a sense of closure? What letter would you have written? You might want to jot down an outline for such a letter or practice a response to a parent who criticizes similar work in your classroom. [This case discussion could provide a good opportunity to prepare and "rehearse" arguments defending a teacher's choice of such an activity or groupwork in general.]

What additional options for response were there? Teachers who have read the case made the following suggestions: 1) invite the parent to class, 2) send copies of the essays to the parent, 3) quote documents such as the California curricular frameworks or Goals 2000 that talk about the need for innovative teaching strategies such as groupwork and their benefits. What would be the advantages and the disadvantages of these options? Of your proposed response?

Have you ever had experiences like this? What did you do? Have parents criticized groupwork in your class? Have students?

The experience factor

Is the fact that the teacher is new significant to this case? What could be the consequences of the experience for this new teacher? How are her hesitations and vacillations reflected in her narrative? Would veteran teachers have reacted similarly or differently?

Case 15
Facilitator Notes

WALKING THE TALK: COOPERATIVE LEARNING FOR TEACHERS

Unlike the other cases in *Groupwork in Diverse Classrooms*, which take place in K-12 classrooms, this account focuses on what can happen when *teachers* are assigned to work together in small groups at an inservice workshop. But like many of the K-12 cases, one group experienced numerous problems and made an uneven, "disjointed" presentation to the larger group. The teacher-author vividly describes what happened in the group, his frustration at being dismissed when he tried to resolve the group's problems, and his anger at professional developers who don't incorporate cooperative learning skills and status treatments into their training sessions.

CONTEXT

The author of this case is a math student teacher in the Stanford Teacher Education Program. The case takes place at an inservice workshop for an innovative math program which relies heavily on constructive uses of groupwork. When he attended this workshop, the teacher-author was also enrolled in a course on groupwork. The course emphasized the importance of a person's ability to contribute to group tasks, and provided strategies for treating unequal status among group members.

QUESTIONS AND ISSUES

In this section, we have framed major issues from *Walking the Talk: Cooperative Learning for Teachers* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

Aspirations for groupwork

What did this teacher hope to accomplish during this inservice workshop? [Probe for the response: testing his ability to apply what he learned in his groupwork course to this inservice.] What do you think he expected would happen? What actually happened? What do you think the staff developers' aspirations were for this inservice session?

What do we know about the group members?

This teacher gives his impression about each of the four group members early in the narrative. How does he describe them? [Probe particularly for language used to describe Dotty.] Based on these descriptions, how do you think the teacher feels about each of the members in his group? How does the fact that Dotty is the only person in the group who had not yet taught the new curriculum put her at a disadvantage for this task?

Examining the task

The teacher said the task for this session differed from those in previous sessions. Previously, teachers were given the outline of a unit. They watched how the instructors modeled the activities and were then put in groups of four to work through the unit as if they were students. Since they are adults, the instructors assumed they knew how to work harmoniously and never made groupwork an agenda item. Clearly, this teacher thought the assumption was faulty. Do you agree?

Look closely at how the teacher described this session's task. What was each group expected to do? How did the task differ from previous sessions?

Pressure point

When the group came together to see if they agreed on their individual products, the teacher said they "didn't get off to the best start." What actually happened? Look specifically at what Dotty said and did. Imagine you were Dotty. How would you have felt when you presented your work and were dismissed by the rest of the group? Put yourself in the place of the others in the group. How would you have reacted to Dotty's presentation. When the teacher asked Dotty what she thought was wrong with the group, Jerry gestured for him to stop talking to her. What would you have done if you were the teacher? If you were Jerry?

After Dotty walked away, the group realized that time was running out and they had not yet prepared their presentation. Without attending to Dotty, they tried to get back to the task at hand. When she returned, Bob and the teacher wanted to attend to her problem, but Jerry only wanted to get the project done. Look at the text. What did Bob actually say to the teacher? What might the teacher have done if Jerry hadn't stopped him? Evaluate these strategies. Given that the group had to plan a presentation in a short amount of time, would it have been appropriate for the teacher to have intervened and tried to "fix" the problem? Give a rationale for each of your conjectures.

Status problems

The teacher points to status problems as the reason for the group's failure to work together. What was the teacher's perception of the status hierarchy in this group? [Probe for the response: based on a knowledge of mathematics, Jerry was the most sophisticated, and the teacher second, followed by Bob and Dotty.] Another possibility for attributing status is in terms of teaching experience, in which case the teacher-author might be at the bottom. An additional means of determining status is knowledge of group process, in which case the teacher feels that his knowledge is equal to Jerry's. Dotty probably has low status no matter how you view the situation. If her content knowledge is poor, as the teacher maintains, and she has never taught this particular curriculum, she is at a disadvantage in terms of the group's assignment. What could you do to raise her status in the eyes of other group members?

A plan of action

Given that content knowledge *and* pedagogical content knowledge are needed to accomplish this task, and that Bob and Dotty are weaker in these areas, how could you organize responsibilities for the task if you were a member of this group? What are the risks, benefits, and consequences for each strategy?

Professional development

The teacher felt strongly that the instructors should have included strategies for group process in their inservice seminars, especially since the new math program they were learning relied heavily on groupwork. Do you agree? If yes, why? [Probe for the response: there is a need for models of how to prepare and maintain constructive groups in the new math program.] What would you include, if you were a staff developer?

Principles of teaching and learning

Based on this discussion and previous discussions and on your own experience, what principles of teaching and learning in collaborative small groups apply to *both* children and adults? What principles of staff development are important?

CHAPTER III:
ONE TEACHER'S ODYSSEY

Case 16
Facilitator Notes

WE'RE ALL IN THIS TOGETHER

The third chapter of *Groupwork in Diverse Classrooms* is titled "One Teacher's Odyssey." Like Odysseus, who undergoes many trials and gains wisdom on his long journey home, the teacher in this case encounters challenges as she becomes an accomplished Complex Instruction teacher (see the casebook introduction for a description of this approach to groupwork). This extended case describes in rich detail a full year of one teacher's groupwork instruction; thus we see a well-rounded depiction of groupwork. The case explores the successes and failures of groupwork and its benefits and costs. It affords opportunities to discuss virtually every dilemma of groupwork.

CONTEXT

The case describes a 7th grade core (combined language arts and social studies) class at a middle school in a semi-rural town which is growing swiftly with the development of rapid-transit and new housing. The students are 60 percent Caucasian, 15 percent Hispanic, 13 percent Asian American, and 12 percent African American. The teacher has taught middle school for 18 years and is a recognized expert in Complex Instruction. In this case, she describes and reflects upon her first year using this approach to groupwork.

QUESTIONS AND ISSUES

In this section, we have framed major issues from *We're All in This Together* and provided questions for the facilitator to use in preparing for the case discussion and while leading it. Prior to the actual case discussion, facilitators will find the questions helpful in working through their personal analysis of the case. The questions are also designed to be asked directly of the case participants (though we encourage facilitators also to develop their own questions). Information in this section that is intended solely as background for the facilitator is designated with brackets.

[This case spans a full year and, therefore, several units of instruction. In leading a case discussion, we suggest you invite comparisons across the different units and points in the teacher's year. We have structured the discussion topics to move from a focus on the students' varied experiences with groupwork, to the teacher and her growth throughout the year, and finally to some common dilemmas of groupwork.]

The teacher's role

Several times in the case narrative the teacher reflects upon how Complex Instruction has helped her redefine her role in the classroom. She begins with a description of why teaching appealed to her early in

her career. What does she say about the initial appeal of teaching? How does she describe her changing role? Cite specific incidents or moments that make her aware of her changing role. What aspects of her new role seem to provoke an internal struggle? How do you interpret her struggles? In what ways, if at all, does she seem ambivalent about her new role? About Complex Instruction?

In the concluding scene, Ms. Knight poignantly describes Christi sobbing and longing to be part of the group. She says, "I felt both exhilarated and sad. Whatever had happened to Christi had happened to me as well." How do you interpret her closing remarks?

Purposes for groupwork

Throughout the case the teacher examines and evaluates her rationale for groupwork. Prior to her involvement with Complex Instruction, how does she justify her inclusion of groupwork? What are some of her disappointments with groupwork? Despite these disappointments, why does she continue to explore "a way to make it better"?

During the poetry unit, the teacher expresses her doubts about groupwork and whether it is "worth it." How does she allay her doubts?

Where does groupwork fit into the overall scheme of her classroom? What are the variety of groupwork lessons employed? How does the "regular classwork" articulate with the Complex Instruction units? What are the benefits and risks of her approach to groupwork?

The groupwork task

[This teacher's notion of a groupwork task derives from specific design criteria used in the construction of Complex Instruction units (i.e., the tasks tap multiple intellectual abilities, are multi-dimensional, and are open-ended). These criteria are central to productive groupwork because they set the stage for enhanced student access to the content, and more importantly, for students' interdependence. (See the casebook introduction for a more extended discussion of groupwork tasks.)]

How does Ms. Knight compare her groupwork tasks before and after Complex Instruction is introduced? What influence does "learning about multiple abilities" appear to have on this teacher's notion of a groupwork task? Reread her descriptions of various tasks, looking for clues that describe the "multiple abilities" necessary to complete them. How do students seem to respond to the inclusion of "multiple abilities"?

Designing tasks so that there is open-endedness and uncertainty ensures kids will need each other to complete a task. How do the students handle the uncertainty in the poetry unit, which was their first experience with Complex Instruction? In the "Papal Bull" incident, which was their last Complex Instruction unit? How do you explain the different responses to uncertainty in the task? What evidence is there for how the teacher handles assessment of groupwork? [Probe for mention of grade for participation, group presentations, etc.] One of the dilemmas of assessment in groupwork is striking a balance between evaluation of the content/material students learn and the process the group uses to accomplish its task. In your opinion, how should one assess the individual? The group?

Christi

Christi is the central student in this narrative. How does Ms. Knight introduce her to us? [Probe for the responses: her desire to be a teacher, enjoys authority, organizing, being expert, reminds her of herself as a seventh grader.] Students like Christi are often described as "individualists." What qualities in her character and actions support this description? How does the teacher appear to feel about Christi? How do you think Christi feels about Ms. Knight? Can you think of "Christies" you have had in your classroom? How have you responded to them?

Prior to the introduction of Complex Instruction, what is Christi's typical role in groupwork? How does her role change as Complex Instruction is implemented? The teacher uses the metaphor of "having a rug pulled out from under Christi's sense of security" to describe Christi's reaction to "interdependence." Why do you think Christi responds in this way? What advice would you offer Ms. Knight to help Christi feel more secure?

During the first day of the poetry unit, why does Christi grow impatient with Roberto? Why might Christi react as she does? How do you think the others in the group, especially Roberto, feel? [Note: probes for a more complete discussion of Roberto appear below.] How does Ms. Knight handle Christi's impatience and the controversy that emerges? What do you think Christi learned in this lesson? How does the episode describing Christi as the dance commissioner enrich our understanding of Christi?

As the year progresses, Christi's inability to function in groupwork becomes increasingly more aberrant, more "extreme." How do you account for her increasing tantrums and her inability to adapt to this groupwork model? How do you think the other students reacted to her? In what other ways might Ms. Knight have helped Christi cope and adapt?

Roberto

Roberto offers plentiful contrasts to Christi. How does the teacher describe him? Students like Roberto are often characterized as "low status." What qualities in his character and actions support this description? [Probe for these responses: pushes back desk, shrugs shoulders, smiles, recently left bilingual classroom, barely suppresses his interest.] How does the teacher appear to feel about Roberto? How do you think Roberto feels about Ms. Knight? The others in his class? Can you think of "Robertos" you have had in your classroom? How have you responded to them?

During the first day of the poetry unit, why do the students "harangue" Roberto? How do you think Roberto felt before and after Ms. Knight stepped in? What do you think Roberto learned in this lesson? Unlike Christi, who fights groupwork with tantrums, Roberto seems to embrace groupwork. How does the teacher describe changes in his classroom behavior? How do you explain these changes? In what ways does Miguel serve as a foil to Roberto?

[Ms. Knight says that Roberto spoke up more, she was able to then "point out the value of his contributions" and as a result, "others in the class began to take his opinions more seriously." For sociologists, this is called "assigning competence." This is a strategy designed to change others' perceptions of a low-status person (e.g., change the class's perception of Roberto). By changing others' perceptions, we simultaneously alter the others' expectations for what that person can do. Thus, when an assignment of competence is successful, others expect the low-status student to be able to contribute or accomplish more than before the assignment. In the best of all possible worlds, this change in

expectations becomes a self-fulfilling prophecy, with the result that the low-status student participates more meaningfully, and eventually learns more.]

Let's assess Ms. Knight's assignments of competence. She pointed out the value of Roberto's contributions so others would take him seriously. Why might such an action have an impact on other students? How do you think Roberto felt when he was publicly singled out in this way? What role does remarking about his abilities play in Roberto's change from a failing to a passing student? How else might one explain his improved grades?

What evidence is there in the text that Ms. Knight's assignment of competence is successful? That it is not successful? How do you interpret Roberto's remark during the Children's Crusade unit, "Before my group complained when I didn't talk, and now they complain when I do"? During the unit on feudal Japan, why do you think Christi and Eddy ignore Roberto's suggestions for designing a castle? If the teacher's assignment of competence has not been successful, how do you account for that?

Eddy, Eric, Desiree, Leo, and Cyndi

Near the end of the case the teacher introduces a series of students who have differing experiences with groupwork. Why does she introduce them at this point? Review the details of each student's story. In what way is each student unique? In what way is each representative of a type of student? When taken together, what impact do they have upon the case as a whole? In conversations with Ms. Knight, she remarked that she saw her class as a "system." How do the descriptions of these other students reflect that view?

Resolving conflicts

The teacher mentions several episodes when she steps in to resolve conflicts. How does she help student's overcome an impasse? Resolve their conflicts? In your analysis, how helpful are her interventions? To what extent do strategies for conflict resolution need to be part of the repertoire of a teacher who uses groupwork? How does she appear to decide when she needs to intervene and when students are having a "healthy debate"? Can you suggest additional strategies that you would have considered had you been in Ms. Knight's situation?

How might Ms. Knight's approaches to conflict resolution have helped the English teacher in Case 7, "Puzzles of a Well-Crafted Group"?

Picking up the lingo

The teacher remarks at one point that the students have "picked up the lingo pretty well." She goes on to recount a conversation in which the students parrot back the reasons for groupwork. How do you interpret the teacher's use of the word lingo? Based on your experience, have you encountered students who can state, yet not understand, why they ought to do groupwork, or how they ought to behave during groupwork? How do you respond to students when this occurs? Of what value is lingo in teaching kids to work in groups? What are the risks and benefits of introducing lingo?

Composing groups

Unlike many of the teachers in the other cases, this teacher seems almost cavalier about how she composes groups. Why do you think she adopts this attitude toward grouping? What effect might her grouping strategies have on her classroom?

One teacher's odyssey?

What is the significance of the case's title? In what sense has Ms. Knight's year been an "odyssey"? What wisdom do you think she has gained as a result of her struggles with groupwork?

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