Establishing Classroom Management for Cooperative Learning: Three Cases

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Paper presented at the Annual Meeting of the American Educational Research Association; Montreal; April, 2005.

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Abstract

The purpose of this study was to identify how effective teachers manage productive groups in elementary grade classrooms. Multiple instrumental case study methods were used to document the managerial actions of selected teachers who made extensive use of cooperative learning (CL) activities. Four teachers in three elementary grade classrooms (two teachers team taught a combined 2nd and 3rd grade class) were selected for further study from a larger sample of 13 teachers. Criteria for teacher selection were based on observations of student engagement and group productivity in the spring of the preceding year. Observations were conducted on 5 to 7 occasions in each chosen teacher's classroom, commencing on the first day of school, except in one class in which group activities were not begun until the second week. Most observations were an hour to an hour and a half in length, and included one or more group activities. After several observations were completed, each teacher was interviewed in order to obtain the teacher's perspective about the use of cooperative learning groups. Additional observations were made later in the school year. Analyses revealed several important features of implementing CL, including room arrangement to accommodate group work, organizing activities, teaching students procedures and routines for working in groups, and monitoring group activities. The case studies illustrate how effective teachers established their productive CL settings, and the findings could be helpful to teachers and teacher educators interested in the management of CL activities.

Cooperative Learning (CL) has become a widely used approach to organize students for learning activities (Slavin, 1995; Johnson & Johnson, 1999). Teachers planning to use CL often learn about implementation through participation in workshops or by reading text-based materials describing CL's essential elements. Getting started may be difficult because teachers may not know where to begin or may lack enough formal training to feel successful (Anderson, Rolheiser, & Bennett, 1995, Kuykendall, Dixon, Jesch, Jones, & Lanman-Givens, 1992). Classroom management decisions must be made in several areas; for example, whom to place together in groups, how to organize materials and furniture to facilitate working together, and how to make sure everyone is participating and learning. Particular models of CL provide descriptions of necessary components, but teachers may find lengthy requirements daunting. Difficulty with implementation can also lead to modifications that might be inconsistent with the original model. General suggestions for getting started with CL are available in the literature and these provide some guidelines that teachers with less experience and training can follow (Tischannen-Moran & Hoy, 2000; Colman, 1994; Holubec, 1992). While these suggestions have been made by knowledgeable researchers and practitioners, additional information linked to examples of teachers using such methods is also needed.

Some research has explored how teachers have utilized CL in their classrooms. In practice, many questions arise about how to make complex group arrangements work (Anderson, et al., 1995). The focus of the lesson changes from that of the teacher providing knowledge to students' active engagement in knowledge generation. Simply placing students in groups and telling them to work together is not likely to be as effective as a planned approach to teaching them how to do so (Gillies & Ashman, 1996,

Fuchs, Fuchs, Kazdan, & Allen, 1999). When students are working in groups, determining when and how to intervene is a critical task for the teacher (Chui, 2004).

Understanding how teachers implement CL can be aided by viewing the process as a classroom management task; that is, doing what is necessary to create and maintain an environment in which the teacher can instruct and students can learn. Cooperative learning is a unique format, with different expectations for teachers and for students, compared to traditional activities such as whole class discussion, teacher presentation, or individual seatwork. As Doyle (1986, p. 392) noted, "The settings in which order is achieved… differ in their structure and complexity." From this perspective, the beginning of the year (or whenever CL is first introduced in a classroom) should be a particularly important time to examine implementation, because it is at this time that important classroom management tasks are accomplished (Emmer & Stough, 2001; Evertson & Harris, 1999).

Little research exists that has examined how teachers who are experienced and successful users of CL implement the approach in their classrooms. Knowing what such teachers do at the beginning of the year could provide valuable guidance to other teachers who are attempting to use the approach for the first time, or who may have attempted to use CL and met with mixed success. We believe that teachers and teacher educators are interested in "knowledge in action" (Doyle, 1990), and that classroom management cases can provide some relevant insights and be for analysis and discussion.

Methods

This study was a multiple instrumental case study of 4 teachers who made extensive use of cooperative learning. Stake (1994, p. 237) describes the purpose of a multiple instrumental case study as providing "…insight into an issue or refinement of

theory." In this study, we were interested in obtaining insight into the successful implementation of CL.

The four teachers described in this article were identified as being effective managers of cooperative learning on the basis of observations of group activities in their classrooms. These four teachers were selected from among a group of 13 elementary teachers (grades 2-6), all of whom had been identified by school district administrators and university teacher education faculty as experienced users of cooperative learning activities. All 13 teachers were observed a minimum of three different occasions in lessons that utilized group activities. These observations indicated that students in the classes of the four selected teachers were on-task at high rates (an average of around 95%), and they cooperated well during group activities. When we observed their performance on assignments during lessons, we noted that most students completed assignments appropriately. Other teachers among the 13 we observed also taught lessons with good student involvement, cooperation, or performance, but not always at the same time, and not as consistently as the four teachers we selected for further study.

The observations we used to choose the teachers provided some information about managerial strategies, but they were made during the year rather than at its beginning. In order to gain a better understanding of how the teachers established well-managed group activities, we conducted additional observations of the four teachers and their classes at the beginning of the following school year.

The four teachers agreed to allow us to observe and interview them at the beginning of the following year. Our observations were conducted on 5 to 7 occasions in each class, commencing on the first day of school, except in one class in which group activities were not begun until the second week. Most observations were an hour to an

hour and a half in length, and included one or more group activities. We made field notes during the observations focusing on categories of potential managerial significance, such as room arrangement, communication of teacher expectations, materials management, use of consequences and incentives, teacher monitoring, transition management, student behavior and teacher interventions, academic work and other activities, student performance, and the nature of group work and cooperation. After the observations, the field notes were used to prepare summaries of each observation. Both researchers separately observed all teachers. After several observations were completed, each teacher was interviewed in order to obtain the teacher's perspective about management of cooperative learning groups. This interview, which chiefly was concerned with beginning of year topics, was in addition to interviews with the teachers during the previous spring.

Analysis steps included reviewing the written summaries of each observation, noting consistencies and variation, and linking teacher behaviors to observed student indicators such as involvement in group activities and cooperation. Prior analysis of the 13 teachers in the larger data set had yielded information about a variety of management-relevant categories such as procedures and routines, materials management, room arrangement, problems and interventions, monitoring, group work, cooperation, consequences and incentives, transitions, and group attention. These categories provided a base for subsequent analyses (Emmer & Gerwels, 2002). We identified relevant categories from both the observations and the interviews, and prepared written descriptions of each teacher's management approach and strategies based upon the available data. We then prepared case studies in order to highlight what the teachers did at the beginning of the year to establish effective group work in their classrooms. The

case studies illustrate important components of the teachers' management systems; following the case studies, we discuss their common features.

Case Studies of Beginning-of-Year Practices

Case 1: Mrs. F. Mrs. F was in her eleventh year of teaching and had used CL for 4 years. Her school served a diverse population, 43% of whom were classified by the school district as low income. Mrs. F's second grade class of 21 students consisted of 5 Hispanic, 4 African-American, 1 Asian, and 11 non-Hispanic white students. In Ms. F's classroom, students sat at tables and did group work in pairs or in table groups. Each table had a box at its center with compartments for individual student's materials. Another plastic box or cigar box on the table held material for the group. A rocking chair and rug occupied a corner of the room used for teacher-led activities such as class meetings or story reading by the teacher.

In an interview, Mrs. F stated that her main goal for her students was to "Shift from a teacher-centered classroom to a student-centered classroom." In order to do this, students needed "…to improve and practice good listening techniques and effective communication skills." In our observations during the preceding year, when she taught a third grade class, and during the second year of the study when she taught second graders, Ms. F's classroom activities were very consistent with her goal and her skill-based conception. Poster displays in the classroom presented concrete examples of the skills, and on a side chalk board Ms. F had written: "Listening is" and a list of behaviors which included "giving eye contact to the person talking," "stop moving," "ask questions," and "add answers." During class activities at the beginning of the year, she emphasized teaching students the skills needed for working in groups, and she reinforced

these skills frequently during lessons. For example, in a whole class discussion prior to a group activity during the first week of classes, she reviewed for 13 minutes the meaning of the group skills of listening, staying on task, and cooperating. During the group work activity that followed the discussion, pairs of students practiced using rulers and measuring tapes while the teacher circulated among the groups. Judging from her feedback to students, the teacher's focus during monitoring was both academic and group skills. When Ms. F interacted with students in a group, she praised appropriate group behavior frequently and usually described the behavior that she liked. On two occasions, the teacher used verbal signals ("Freeze" and "Hands folded, eyes on the teacher") to interrupt the groups' activities, in order to demonstrate to the whole class how to perform a measurement procedure, and to remind students about the group skills they were supposed to be practicing. At the conclusion of the activity, the teacher had students rate their behavior in the group using a simple rating scale (with smiling and frowning faces) to evaluate their group's performance on a series of items (Listen, Talk about the task, Cooperate, Suggest ideas, Finish the task). Students also answered questions about the group's processes (e.g., What went well?) and discussed their answers. Mrs. F read each item to the class and explained its meaning. Afterward, the teacher collected both the measurement activity sheet and the group evaluation sheet.

Other observations of group work in Ms. F's class showed additional aspects of how she focused on teaching students to work in groups. As part of the preparation for a small group activity, she would call students' attention to one or more group skills. During the activity, the teacher monitored behavior by circulating among the groups and giving feedback, praise, and redirection. In a similar manner, Mrs. F also taught students to use different group roles, such as discussion leader or recorder. During the preceding

year, we had observed Mrs. F's students using roles such as discussion leader and discussant without teacher prompting; our beginning-of-year observations indicated that the reason for the effective utilization of roles was the careful, systematic way that students were taught the roles from the start.

Interventions by Mrs. F to deal with off-task behavior used class and group discussions of desirable behavior, including discussions of how to respond to such behavior in the group. These discussions often included requests by the teacher for the group members to evaluate their use of some group skill. On the rare occasions when such interventions didn't work, the teacher held a brief conference with the student or used an individual consequence system that involved turning a student's card (displayed on a wall area) from green to yellow or red. In general, though, the teacher's emphasis was on teaching students appropriate behavior for working in groups.

Mrs. F's activities for groups were usually short, from 5 to 15 minutes. Often she provided additional discussion or content development after a short group activity, and followed up with a related group work activity. Transitions between these activities were managed by using one of several signals (e.g., "Stop, look, and listen," "Show me a sign–two fingers,") that were taught to students early in the year.

As a result of Mrs. F's emphasis on group skills, students participated very well in group activities. Students were involved in the group task, and usually practiced the assigned roles. The use of shorter group activities also contributed to the pace of the class, as did Mrs. F's monitoring and feedback practices.

Case Study 2: Mrs. C. Ms. C had 21 years of teaching experience and was in her fourth year of using cooperative learning when we observed her at the beginning of the year in her fifth grade class. During the preceding year, we had also observed Mrs. C. in

another fifth grade class. Mrs. C's school was located in a moderately affluent neighborhood, as indicated by the small number of students classified as low income (9%). Mrs. C's class composition was predominately non-Hispanic white students. The class was divided almost evenly among boys and girls - eleven boys and ten girls. Mrs. C. reported that several of the children had special needs (ADHD or dyslexia), though it was not identified as an inclusion class.

Mrs. C's classroom did not have tables, so she arranged desks to allow students to sit in base groups of 4 or 5 students. The flat desktops, when pushed together, created a table-like rectangular surface. The desks provided storage space for the students' supplies and books as well. The teacher had taped a different colored dot to each desk. Using these dots, the teacher the teacher assigned and rotated weekly roles such as reporter, materials handler, and recorder. When groups needed handouts or other materials, Ms. C distributed them or had materials handlers do so. When Ms. C wanted to obtain group attention, she used a hand-clapping signal she taught to students early in the year.

Mrs. C valued efficiency. Her classroom was highly organized and her expectations clear. Her goals included having her students, "... function with as little direction from me as possible" and "to be on task and learning." She also emphasized that all students should participate in the group's work. Ms. C developed a chart that identified the skills necessary to help meet her goals for group work. Skills displayed on the chart included participation, cooperation, encouraging others, being on task, using quiet voices and appropriate behavior, and following directions. The chart had a grid, with a row for each group, and columns for each group skill. Ms. C displayed the chart using the overhead projector to remind students of her expectations and to encourage the

students to consider these skills while working together. She sometimes used the chart to provide feedback to groups in whole class discussions at the end of group work activities.

Mrs. C introduced her students to group work gradually. She waited until the second week of classes before beginning extensive use of groups, and she presented the group skills from the chart one or two at a time during the next several weeks, letting students know that she would be observing for those behaviors.

Early group activities focused on academic content, with accountability for group behavior as well. During two of the CL lessons we observed, Mrs. C commented on group processes, displayed the chart, and gave feedback to groups about their use of the skills. In most of her early lessons, students worked on a single group activity that lasted from eight to twenty minutes. Occasionally the teacher interrupted the groups to suggest a strategy or to direct students to follow procedures and use the group skill she wanted them to work on that day. In a typical beginning-of-year lesson, she had the groups fill in a single worksheet following a lesson on locating cities using map coordinates. Student grades on the assignment were based on the group's product, which was meant to encourage participation. During the activity, Mrs. C circulated, addressed questions to groups, and occasionally helped individuals. In one instance, she questioned a group about how they were doing and gave feedback that not everyone was being included. During these interactions and throughout the lesson she was businesslike but encouraging, offering praise for correct answers, effort, and desired use of group skills. Mrs. C often combined her praise with tickets that entered the recipient in a weekly classroom raffle (prizes were 4 or 5 inexpensive items). These tangible rewards and praise were directed at desirable behavior, including group behavior. Tickets were usually awarded in each activity in a low-keyed fashion, without fanfare. Although it was

apparent from their reactions that students liked receiving the tickets, the practice did not appear to distract students or interrupt the flow of lessons.

Mrs. C used groups of 4 or 5 as well as pairs. In setting up her groups, she paid careful attention to both overall ability levels as well as personal characteristics of students. Early in the year she checked with the previous grade's teachers for ideas about compatibility among students. For some students with dyslexia or ADHD, she sought to identify partners who could work effectively together. "And this one [ADHD child] has a lot of energy, can't stand to be wrong…questions everybody, including the teacher. I have to put him with someone who will stand up to him, and nobody that will be offended by him." Mrs. C believed that it took at least 6 weeks to establish her cooperative group system, but by the end of that time students understood the procedures well enough to require only minimal prompting to work well in groups.

Case Study 3: Ms. D and Ms. S. Ms. D and Ms. S shared a double classroom and approximately 40 second and third grade students (the number fluctuated somewhat during the year) in a multi-grade class. During the previous year, we had observed them team teach in a combined third and fourth grade class. Ms. D had been an elementary school teacher for 14 years and a user of CL for 9 years; Ms. S had used CL for 4 of the 15 years she had been an elementary teacher. In this school, fifty percent of students were classified as low income.

The double room (with an accordian divider in the middle) provided a number of options for flexible utilization of space. When the divider was open, as it usually was, the central seating area accommodated 10 tables with chairs. Some wall space was used for centers and displays, and instructional spaces for small and large group meetings were set up at both ends of the room. Charts around the room listed life skills, guidelines, and

some specific expectations such as carpet and circle meeting routines. In addition to working in table groups, students frequently moved to other locations for certain group and class activities. To manage the availability and storage of personal items and supplies during activities away from their regular seating area, students wore fanny packs containing needed supplies. In addition, each student had a storage box for other materials on a shelf at the side of the room.

Both teachers were committed to using cooperative learning groups throughout the curriculum. They frequently incorporated group work activities into their daily plans, both for individual lessons as well as for projects that extended for several days. At the beginning of the year, the teachers used several get-acquainted activities designed to promote group cohesion and to build trust. For example, in an early activity used to form groups, children were given large puzzle pieces of different colors, and allowed to search for other children who had the matching piece. Once located, the children conducted interviews to learn more about each other. Although such early activities were not focused on traditional content objectives, these teachers believed they were necessary: "In order for cooperative learning to be successful, children need to be able to trust each other, give ideas and not feel like their ideas are going to be ridiculed. It's not very successful to put kids in a group and expect them to produce a product when they don't know each other and they're scared (Ms. D, interview)."

Learning how to behave in groups was part of the larger picture in this class. As Ms. S noted in an interview, "Our goal every year is to teach them to problem-solve and not be so dependent on us all the time, and just learn to appreciate others' differences and just basically to get along." The teachers utilized a series of seventeen life skills (e.g., problem solving, responsibility, initiative, effort, patience, respect, cooperation) and five

Guidelines (trustworthiness, truthfulness, active listening, no put downs, personal best) as the basis for appropriate behavior. These guidelines and life skills supported effective group work as well as other aspects of classroom life. On numerous occasions, the teachers gave feedback and praise by describing a desirable behavior they had observed in a group as an example of one of the life skills or guidelines. They also utilized these labels as prompts and reminders; for example, students were told that they would need to use the skill of patience during a potentially confusing activity, and that active listening would be required during a group discussion.

Both Ms. D and Ms. S emphasized learning to work in groups during the first weeks of the school year. During initial lessons, different group roles were explained and used. The teachers emphasized their expectations about desirable behaviors by having students practice procedures and routines accompanied by teacher feedback, by maintaining a "procedures notebook" that students could use to review a routine, and by asking older students to help younger students learn about working together. The teachers also taught their students to respond to several signals for group attention. These signals were helpful in managing transitions and re-focusing students during a group activity. In addition to using a bell signal, a number of verbal prompts were used: "One, two, three, eyes on me," "Freeze, sit down," "10, clap, clap, 9, clap, clap, 8, clap, clap…(the students joined in the clapping as they finished putting materials away)." The counting signals helped pace students as they brought an activity to a close and switched the focus of their attention and behavior. Because of the large number of students in the combined class and because the teachers used group activities often, such signals were an important aspect of pacing and managing group activities.

Student self-evaluation occurred as a result of the teachers' emphasis on "doing your personal best." Teachers also asked students to self-report their work contributions. One activity designed to help students evaluate their work on longer projects was the development of a rubric for evaluating the group's product. The teachers identified criteria and engaged students in a discussion of the indicators of the criteria.

Instructional activities utilized flexible grouping patterns. Students were arranged in predetermined table groups. For some group activities, however, students worked in pairs or in ad-hoc groups with different students. Later in the year, students were allowed to choose partners during some group activities. Teachers monitored group work carefully, and said that the focus of their monitoring was progress on the academic task, individual participation, and contribution to the group's efforts. If conflicts occurred, they were redirected back to the group, but the teachers intervened more directly when groups failed to make progress on the problem. Typically, the teachers engaged in problem solving with the group to identify alternatives, or occasionally moved a student to another group. Though it was not common, inappropriate behavior that persisted was dealt with by denial of a privilege such as recess time or the use of a behavior contract.

Discussion

Although each class had unique features, there were a number of common elements in these teachers' classroom management systems. Major management tasks all teachers addressed at the beginning of the year included arranging their rooms for group activities, teaching their students appropriate group behaviors, and organizing and supervising group activities.

Managing physical space and materials. For each teacher, cooperative learning was used throughout the school day, not just in one or two subjects or activities. Because of

this commitment, it made sense for the teachers to arrange the classroom's physical space to accommodate groups. One key component was the arrangement of seating areas and furniture; another was the placement of teacher-led group instruction areas; a third component was storage space for materials and supplies.

The use of group tables or a desk arrangement in groups instead of rows eliminated the need to rearrange desks each time a group activity was used. It also permitted the establishment of traffic lanes to facilitate movement in the room. The use of group seating arrangements can make it more difficult to conduct teacher-led large group instruction, because some students don't sit facing the teacher. Ms. D/Ms.S and Mrs. F solved this problem by setting up large-group instructional areas apart from the group work area. When the teacher wanted to present information, hold a class meeting, or conduct a discussion with the whole class or a large group, students went to the large group area. Because of the larger number of students in their combined class, Ms. D and Ms. S frequently split the whole class into two large groups for teacher-led instruction, which they conducted in the areas at opposite ends of the double room. Mrs. C conducted whole class activities from a central location that permitted students to see the overhead projector screen while remaining at their desks. Mrs. F utilized a rug area for some whole class activities, but she also taught the class from a central location, especially when the instructional activity included teacher-led discussion accompanied by student seatwork or group work in pairs.

Access to materials and their efficient distribution were handled in several ways. Mrs. C's students had individual desks with ample storage for personal items and school supplies. Students in the other classes were seated in chairs at tables rather than desks, so storage of personal items needed special planning. Mrs. F placed containers in the center

of each table for group supplies and individual student storage. Ms. D/Ms. S had students bring fanny packs for personal items. These were either worn by students or left at their seats, depending on the activity. These teachers also kept some instructional materials in a central location from which students in the role of materials manager could gather items for their groups.

Teaching students appropriate group behaviors. Numerous studies provide evidence that teaching children specific interaction techniques enhances learning and group functioning (Nattiv, 1994; Gillies & Ashman, 1998; Fuchs, et al.,1999). Behavioral training that focuses on teaching students to interact in groups in a friendly and collaborative fashion can result in more liking of self and school as well as increased achievement (Battistich, Solomon, & Delucchi, 1993; Veenman, Denessen, van der Akker, & van der Rijt, 2005). The teachers in our study emphasized group training at the beginning of the year. Each teacher emphasized the importance of students learning how to work in groups. They discussed their expectations for group behavior frequently, posted reminders about desirable group behaviors, and gave students verbal reminders. Our observational field notes included 42 occurrences (in 18 observations) of teachers' stating an expectation about desirable group behaviors, and this number is an underestimate because we did not attempt to record every instance of such instruction. In addition, sometimes after a group activity the teachers asked students to self-evaluate their own and their group's success at practicing good group skills, and the teachers gave students feedback during and after group activities as well. The teachers' emphasis was positive, with teachers describing desirable behaviors or commenting on a student's or a group's appropriate use of a group skill.

These teachers' conceptions of desirable group skills were comprehensive and their approaches to teaching them were systematic and planned. All the teachers had a clear conception of the group behaviors that were needed in order for successful cooperative learning to occur. Mrs. C and Mrs. F had a skills based conception that enabled them to provide concrete instruction and that simplified their communication to the students. Ms. D/Ms. S regarded group skills as part of a larger plan for living and for character development. They communicated this view by giving examples of and commenting on desirable group behaviors as instances of life skills. Research indicates that social skills utilized in small groups can generalize to other areas of classroom behavior such as whole class learning (Jordan & Le Metais, 1997; Johnson, Johnson, Buckman, & Richards, 1985). Once learned, these group skills may remain with the student, even into the next school year (Gillies, 1999).

Managing and Supervising Group Activities. At the beginning of the year, the teachers usually used brief (e.g., 10-15 minutes) group activities, often using student pairs rather than larger groups, that were closely tied to prior and subsequent teacher-led whole class instruction or discussion. This was true even in the combined class of Ms. D/Ms. S, who often used groups for lengthy project-based group activities later in the year. The shorter activities at the beginning of the year allowed the teachers to focus on specific skills and simplified the tasks of monitoring students and maintaining engagement. All of the teachers used some get-acquainted activities during early classes to support working in groups. These early activities provided a context for initial teaching of group skills without the press of covering essential academic content at the same time.

All the teachers taught their classes to respond to several group attention signals, such as "Freeze!" "Eyes on the teacher," or "One, two, three, eyes on me." Some of these

procedures included overt student hand movements, such as thumbs up or clapping in rhythm. These routines enabled the teachers to interrupt student group activities and gain students' attention quickly if they needed to convey some new direction or instruction. The routines also were helpful in bringing a group activity to a close and moving students through a transition to a new activity.

Active teacher monitoring during group activities was also evident. None of the teachers in any of the observations sat at her desk or engaged in work other than monitoring, helping, and providing feedback. Teachers circulated among the groups, looked at written work, commented to groups about their activities, and gave feedback to individuals and groups. The teachers' active monitoring kept them aware of individual students' participation in the groups and whether group skills were being used appropriately, and as a result teacher feedback could accurately target individual students, groups or, at times, be given to the entire class.

Final comments. The value of these descriptions for teachers planning to use CL is the identification of areas that should be given prominence when it is introduced into the classroom. In particular, these cases highlight the process of teaching students the behaviors that are needed for good group functioning, organizing the physical setting, and actively monitoring students as they work in groups. The preparations used by teachers in this study to begin work in cooperative groups have received strong support in the literature on CL. The emphasis on teaching skills for working in groups when group activities are first introduced has been recommended by Goodwin (1999) and Johnson & Johnson (1992), for example. The teachers in this study used such an approach, concentrating early lessons on teaching students how to work in groups, using visual aids

to identify desirable group skills, and reviewing group processes and skills before or after lessons.

The metaphor of teacher as facilitator is sometimes applied to the teacher's role in CL, but our teachers belied the limited and somewhat passive teacher involvement implied by that descriptor. At the beginning of the year, these teachers actively guided and coached students during CL activities. They taught students particular skills and routines needed to manage CL activities (e.g., signals for managing transitions and group attention) and they monitored, gave feedback, and encouraged student self-evaluation of their use of group skills. All these teachers had a goal of helping their students become more independent learners and less reliant on the teacher, but this goal did not imply to these teachers that their role was a passive one.

Aspects of room arrangement and materials management that were supportive of CL activities are also worth noting. Attention to details of room arrangement and materials management may help to alleviate some of the potentially bothersome aspects of CL such as lengthy transitions between activities, excessive movement around the room, and lack of storage space at tables. The teachers we observed had aparantly spent some time considering these matters, as evidenced by their unique solutions (fanny packs for personal supplies, for example).

The case studies presented in this article highlight classroom management, which is an important area of concern for many teachers as they implement a new classroom program or approach. Our emphasis on classroom management features does not imply that curricular concerns and lesson development are unimportant during implementation. Our purpose in choosing this focus was based on the premise that difficulty in solving

classroom management problems often limits teachers' attempts to utilize cooperative learning activities.

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