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ABSTRACT

The major purpose of the research reported here was to determine how teachers from middle school to high school levels acquired their understanding of cooperative learning, how they used it in the classroom, and how they kept students accountable for performance. Eleven teachers were interviewed and observed in five disciplines (language arts, mathematics, physical and health education, science, and Spanish). Teachers gained their knowledge of cooperative learning from coursework, peers, and professional organizations. Cooperative learning was primarily used for completing worksheets or textbook-type assignments, reviewing for tests, or reviewing homework. Typically, the teachers assigned students to groups to maintain a balance of abilities; they assigned roles to students and expected students to know their roles, but students often did not know what they were expected to do in their roles. Higher level thinking was observed often, but seldom seemed to be a primary objective. Teachers held cooperative groups accountable for completing tasks together and submitting the group's assignment. Usually a combination of group and individual grades was assigned, or individual grades were assigned with some extrinsic reward for the group. The classroom observations indicated that the teachers were generally not very "risk taking" in their use of cooperative learning, but that they were successful in the strategies they used. A cooperative learning interview form and an observation form are appended. (JDD)

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COOPERATIVE LEARNING:  
WHAT TEACHERS KNOW ABOUT IT AND WHEN THEY USE IT

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RESTRICTION

## Introduction

Over the past several years cooperative and collaborative learning has been presented as a means for classroom teachers to more appropriately prepare students for the society of the twenty-first century. Much discussion is available about cooperative learning practices and the effects of these practices on a variety of outcomes (see, for example, Johnson & Johnson, 1987; Slavin, Sharan, Kagan, et al., 1985) as well as discussion of its use and application in preparing pre-service teachers (Boyd & Tompkins, 1992; Hillkirk, 1991). In the discussions surrounding cooperative learning, however, little is mentioned about how practicing teachers have gained their knowledge and understanding of cooperative learning or how cooperative learning is implemented in classrooms.

Cooperative learning has long been an interest of the writers, especially as a means of providing pre-service and in-service teachers in college courses the opportunity to work together on a common task and learn from each other (Easton, Abel, Edwards, Herbster, Sparapani, 1993). Often much time is spent "teaching" course participants about cooperative learning or preparing them for their cooperative learning roles. Additionally, these same strategies are often practiced in classrooms as a part of fieldwork requirements. A concern, however, has been how these experiences and this knowledge has been translated into classroom practice, if at all.

Our major purpose in doing this research project, therefore, was to determine how teachers acquired their understanding of cooperative learning and what that understanding looked like in classrooms, particularly

middle level (middle school and junior high school) and high school classrooms. Our objectives were threefold. First, we wanted to provide information concerning what middle level and high school practicing teachers who used cooperative learning often in their classrooms knew about it, i.e., how did they gain their knowledge. Second, we wanted to determine when (i.e., for what purposes) these teachers used cooperative learning. Third, we wanted to learn how teachers kept students accountable for performance in cooperative learning activities.

To do this, each of us identified at least two middle level or high school classroom teachers who said they used cooperative learning in their classrooms on a regular basis, interviewed each teacher about their understanding of cooperative learning, and observed cooperative learning being practiced in the teachers' classrooms. We observed the classroom teachers over a two- to three-week period in either Fall Semester, 1993, or Winter Semester, 1994. This resulted in observations of eleven teachers in five states (Alabama, Michigan, Montana, New York, Washington) in five disciplines (language arts, mathematics, physical and health education, science, Spanish). Of the eleven teachers, nine were middle school teachers, one was a junior high school teacher, and one was a high school teacher; nine were females and two were males. All were caucasian.

The following is a fairly inclusive synthesis of our findings:

### **1. How Teachers Gained Their Knowledge**

The patterns by which the teachers gained their knowledge and understanding of cooperative learning practices were varied. Surprisingly, no teacher seemed to purposely seek knowledge of cooperative learning, at least initially. Initial awareness occurred as a result of some kind of first-hand experience with it. The data revealed a consistent clustering around

three patterns of experiences. These were as follows:

**a. Coursework**

Several teachers said that they took college courses in which cooperative learning strategies were used or reviewed. As a result of this coursework, the teachers then either sought out workshops on cooperative learning, or took college courses which focussed specifically at cooperative learning practices and strategies, or did extensive reading about cooperative learning, or involved themselves in a combination of coursework, workshops, and reading.

**b. Peer Influence**

Several teachers indicated that a friend (colleague) was using cooperative learning in their classroom, and that was how they were introduced to and became interested in cooperative learning. This interest was typically followed by reading about cooperative learning or attending in-service activities focussed at cooperative learning. Two teachers said they were introduced to cooperative learning as student teachers. Their cooperating teachers used cooperative learning strategies.

**c. Professional Organizations**

A few teachers (three) mentioned that they first "heard" about cooperative learning through material from their professional organizations or by attending a conference. This was followed by either coursework, or reading, or workshops, or a combination of the three.

The most common patterns of "hearing" about cooperative learning were through either some form of coursework or peer influence. Knowledge of cooperative learning also came mainly from coursework or peer influence. This was normally followed by some form of professional development activity, e.g., in-service workshops or reading. Several teachers indicated

that they had put together a fairly extensive library of cooperative learning-related information. Interestingly, although teachers indicated their administrators knew about and supported their efforts relative to cooperative learning, none mentioned that their school district's curriculum leaders played any role in either their introduction to or understanding of cooperative learning practices.

Also, all teachers indicated that there were few teachers, at least that they knew about in their buildings, who used any form of cooperative learning. A typical comment was, "There might be two or three more, but I'm not sure." It was suggested, also, that cooperative learning practices might not be viewed as appropriate beyond seventh or eighth grades.

Additionally, the teachers seemed to have a good understanding of the typical cooperative learning roles (e.g., leader, recorder, presenter, observer) or alternatives, but most were unaware of particular cooperative learning programs like, for example, Jigsaw, Think-Pair-Share, STAD, Teams-Games-Tournaments. Most teachers said they did not use "just one" cooperative learning process because, as one teacher put it, "using one cooperative learning practice all the time gets boring for the kids and (also) doesn't fit all situations."

## **2. Purposes For Which Cooperative Learning Is Used**

The main purposes for which cooperative learning was used were fairly basic, i.e., completing worksheets or textbook-type assignments, reviewing for tests, or reviewing homework. The main directions for working in cooperative learning groups were to "work together," "check each other," and "decide on an answer." Typically, the teachers assigned students to groups to maintain a balance of abilities. Teachers did not appear to pay particular attention to mixtures of gender or ethnicity, although groups typically had a balance in these areas also. Teachers usually

determined group membership, assigned roles to students in the groups, and expected students to know their roles.

Students seemed to be aware of their roles, but often it appeared they did not know what they were expected to do in that role. It was seldom observed that teachers explained roles to students. This, however, could have been handled at times when no observers were present, but it was evident to observers that students often did not appear to understand what their responsibilities were in a particular role or, perhaps, were hesitant to "play" that role. Additionally, when teachers did explain/review role responsibilities with students, students still seemed unsure of their responsibility, or some students did not seem to want (or appreciate) a certain role assignment, especially if he/she believed they should be the group's leader. Further, it was seldom observed that teachers taught the students (or reviewed with the students) the social interaction and communication/problem solving skills necessary for working collaboratively.

Teachers explained that their main purposes for having students work collaboratively groups were, basically, to learn to rely on themselves, to share and explore ideas, and arrive at a mutual understanding. One teacher explained that she wanted to develop a classroom atmosphere of "one big family."

It was obvious to us that students generally seemed to enjoy working in cooperative groups. They usually listened to each other while they discussed and debated the relative merits of group members' opinions or input, **evidence**, we believed, that some social interaction skills either had been taught by the teacher or had been learned as a result of group interactions over time. Eventually groups reached some form of consensus, sometimes with teacher prodding. Teachers appeared to enjoy the process and the results. Teachers especially seemed to appreciate the enthusiasm

and involvement and ownership of the students. Teachers seemed excited about the possibilities for using cooperative learning.

Higher level thinking (problem solving, decision making, critical thinking, creative thinking) was observed often, but seldom seemed to be one of the teachers' primary objectives for a cooperative learning activity. Higher level thinking appeared to emerge incidentally as a natural outcome or necessity related to working with others and trying to reach a common understanding.

### **3. Accountability**

During all observations, teachers were constantly moving around the classroom monitoring group behavior, providing feedback, asking and answering questions, prodding, giving assistance, evaluating group progress. Also, group members were observed monitoring their own behavior, answering each other's questions, providing feedback, giving assistance, evaluating the group's progress. Teachers held cooperative groups accountable for completing tasks "together" and submitting the group's assignment. Seldom, however, was it evident that only group grades were given. Usually a combination of group and individual grades were assigned, or individual grades were assigned with some "other" type of reward for the group such as "free time" or "group choice." Rewards were determined by appropriately meeting previously established criteria.

### **Summary**

During the time we observed these teachers at work, we saw essentially the same strategies at each observation. The students were seated in groups of three, four, or five. The teachers set the tasks, sometimes reminded the students of the principles of cooperation, monitored the process, gave assistance/feedback as needed, and maintained a standard of



accountability appropriate to the grade level of the students. We seldom saw evidence of jigsawing or other cooperative learning strategies.

Teachers usually said they did not assign group grades, but often used extrinsic types of rewards for the groups that achieved the best results.

For the most part, teachers appeared to have successfully implemented cooperative learning. Students seemed to be happy and were acquiring both social and academic skills. Cooperative learning was a relatively new practice for these teachers; one to three years was the norm. Only one teacher had used cooperative learning for more than five years.

Although group problem solving and decision making, as well as critical and creative thinking were evident, teachers generally were not very "risk taking" in their use of cooperative learning. Activities such as reviewing for tests and completing homework or in-class paper and pencil assignments were typical. Perhaps as teachers become more familiar and comfortable with cooperative learning, they will develop more challenging goals and objectives for their cooperative learning groups.

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Grade Level: \_\_\_\_\_  
Subject: \_\_\_\_\_  
Gender: \_\_\_\_\_  
Race/Ethnicity: \_\_\_\_\_  
Observation:     1 2 3 4

### Cooperative Learning Observations Form

**Directions:** Please observe for the following. (Please be specific in your comments.)

1. What types of activities does the teacher have students do in their cooperative learning groups?

Comments:

2. Are students cooperating, e.g., is their division of labor, are materials shared?

Comments:

3. Do students have assigned cooperative learning roles? Do they seem aware of their roles?

Comments:

4. What kinds of directions and feedback are given by the teacher that relate to cooperative learning?

Comments:

5. Are groups heterogeneous or homogeneous? (pay attention to ability, gender, special needs, race/ethnicity)

Comments:

6. Describe the "atmosphere/climate" of the classroom.

Comments:

7. Is there evidence of the following higher-order thinking skills being practiced in the cooperative learning groups either as a result of teacher direction or student initiative?

a. Creative thinking

Comments:

b. Critical thinking

Comments:

c. Decision making

Comments:

d. Problem solving

Comments:

8. How are students held accountable?

a. Each student is evaluated?

Comments:

b. Students check each other?

Comments:

c. Random students are evaluated?

Comments:

d. There appears to be no student accountability?

Comments:

9. What kinds of cooperative learning practices/strategies are being displayed?

Comments:

10. Is your classroom observation consistent with the teacher interview?

Comments: