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ABSTRACT

This study examined what occurs in cooperative learning groups that include students with mild disabilities in grades 3-6. Teacher interviews were combined with observations of 10 special and 10 regular education students' behavior in cooperative learning groups which used the Cooperative Integrated Reading and Composition model. Results are discussed in terms of who is providing help to the student with disabilities and how often, what contributions the student makes to group tasks, the assignment length, the teacher's role in successful participation of students with disabilities, teacher expectations for student competence, and setting up expectations. The paper concludes that successful use of cooperative learning as an inclusion strategy will require: (1) rethinking and reorganizing of the ways special education provides resources, services, and modifications for students with disabilities; and (2) sustained effort of regular class educators to raise the status of contributions by children with disabilities and to establish and maintain norms of participation and helping. (Contains 14 references.) (JDD)

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Cooperative Learning as an Inclusion Strategy:

The Experience of Children with Disabilities

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Most educators believe that learning how to work cooperatively and function as a responsible member of a team is an important educational outcome in its own right. This consensus about the inherent value of teamwork, combined with the development of practical classroom procedures for structuring group learning activities, probably accounts for the exponential increase in classroom teachers' use of cooperative learning procedures. Besides its contribution to the development of social competence, cooperative learning is seen as an effective strategy for improving academic achievement (Johnson and Johnson, 1986; Slavin, 1990; and Webb, 1985) and for increasing interpersonal attraction and friendships (Johnson, Johnson, and Maruyama, 1983).

In addition to its utility in promoting academic and social outcomes, cooperative learning may also offer teachers a unique strategy for managing instruction in heterogeneous classrooms where learners' abilities, knowledge, and backgrounds vary broadly (Slavin, 1990; Cohen, 1986). Extending this logic, many special educators see cooperative learning as a way to expand educational opportunities and improve learning outcomes for students with disabilities. Indeed, in special education circles cooperative learning is one of the most frequently recommended strategies for effecting "full inclusion" of students with disabilities in regular classroom programs (Will, 1986; Slavin, 1990; Johnson & Johnson, 1980; Thousand & Villa, 1991; Stainback & Stainback, 1992; Slavin, Stevens & Madden, 1991). These special education students are individuals who might otherwise find themselves working independently on classroom tasks that are poorly matched to their abilities and needs, and/or who because of their academic

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shortcomings might be excluded from normal classroom assignments, sent instead to work with a specialist.

The reasoning behind employing cooperative learning as an inclusion strategy goes something like this. In heterogeneous classrooms a major challenge for teachers is to engage all of their students in high quality, meaningful learning activities. But the lowest achieving students (e.g., those with disabilities and those from different linguistic backgrounds) cannot *on their own* perform some of the more challenging classroom assignments. However, were teachers to restructure classroom learning activities, replacing individual work-alone assignments with assignments for small heterogeneous work groups organized according to cooperative learning principles, they would provide a more supportive learning environment for struggling students. The peer support within these cooperative work groups could enable low achieving students to overcome many problems that they might not overcome, if they were working by themselves. For example, more capable or better informed peers from the work group might clarify the nature of an assignment, interpret complex instructions, give feedback and corrections, provide encouragement, and assist struggling students in solving problems that are within their zones of proximal development but beyond their ability to perform independently (Vygotsky, 1978). According to this reasoning, redesigning classroom learning activities under a cooperative learning model results in a better learning environment for students with disabilities, one that is characterized by higher participation levels, better task engagement, and more opportunities for involvement in challenging work.

Although the rationale for using cooperative learning to enhance instruction for students with disabilities is persuasive, research on the efficacy of this strategy has produced mixed findings. After reviewing achievement outcomes of cooperative learning treatments, Tateyama-Sniezek (1990) concluded that this approach was usually not effective in improving the achievement of students with disabilities. Other researchers, however, have found treatments that included a cooperative learning component surpassed non-cooperative learning control conditions in raising reading, language, and math scores of students with disabilities (Slavin and

Stevens, 1990; Slavin, Madden & Leavey, 1984; Stevens, Madden, Slavin, & Farnish, 1987; Jenkins et al., in press).

Even in programs that employ the same nominal cooperative learning treatment there is room for large differences in the task involvement of special education students and in the amount and kind of help that students extend to each other. Peer support and, concomitantly, the degree of special education students' participation in the group's learning tasks are probably the principal factors affecting the efficacy of cooperative learning for students with disabilities. We suspect that the discrepant research findings on the efficacy of cooperative learning in special education may have resulted from variation in how cooperative learning was implemented.

The present study was designed to take a closer look at what actually occurs in cooperative learning groups that include students with disabilities. We were particularly interested in examining the quality of special education student's participation in group work and in the nature of the help provided by the peer group. We also hoped to identify structural factors (e.g., learning tasks and classroom conventions) that contributed to more and less successful cooperative learning groups. Our strategy was to combine teacher interviews with observations of special and regular education students' behavior in cooperative learning groups which used the same nominal model, Cooperative Integrated Reading and Composition, or CIRC (Stevens et al., 1987).

Method

Observations

From February through May, we observed twelve 3rd through 6th grade students with mild disabilities in one school during two-to-six hours of reading instruction structured for cooperative learning groups. To provide a comparison, we also observed a classmate from a different cooperative group in the same classroom (a same-sex peer who scored closest to the class average on the Gates-MacGinitie Reading Test) during the same period of time. Two observers worked in each classroom simultaneously, one targeting the child with disabilities, and

one the average-achieving peer. During successive observations, observers traded target children so that each child was observed by each observer. Two pairs of children were dropped from the study following observations because although the class was structured for cooperative learning, the students with reading disabilities were tutored individually by adults and did not participate in any cooperative learning activities.

Prior to beginning our observations, we established minimal criteria for successful functioning in cooperative learning groups. We expected that peers would provide appropriate help to the child with disabilities when it was needed, that all children would offer some sort of contribution to the group's effort, and that the assigned tasks would be accomplished. Our minimal criteria provided a focus to our observations, however, we also noted peer and adult/peer interactions (including notes on conversations where possible), time spent on specific activities, the number of occurrences and types of help received and contributions offered by the target child, and whether work progress or completion was achieved during the observation.

Interviews

Observations were followed by interviews with teachers to gather information on their use and rationale for cooperative learning, their goals for students classified for regular and special education, and perception of cooperative learning as an appropriate strategy for inclusion of children with disabilities in the regular classroom's reading instruction.

Other supporting structures

We observed other supportive structures for students with disabilities which are not documented here because they were not cooperatively conducted activities. These supports included audio-taped reading to provide children with low reading skills the story structure to enable participation later, and special education teachers or assistants who primed children for cooperative group work by practicing key vocabulary outside of the normal reading time.

Transcriptions and coding

We transcribed the observations and interviews, and developed themes by reading transcripts for the paired (regular and special education) students and seeking areas of similarity

and difference. We annotated the transcripts for activity, participation, adult/child interactions, peer interactions, assistance offered and provided (to and by whom), and work progress. In addition, observers wrote interpretive memos about events and impressions following each observation. Copies of uncoded transcripts were then given to two researchers who had not participated in collecting the data to code and categorize using our list of preliminary themes. We validated our preliminary list the following year by observing six students in two other schools during cooperative learning activities to seek confirming and disconfirming evidence for the themes we developed on our first set of observations.

Results

Helping

First, we examined a central assumption of cooperative learning, i.e., that children who need help are able to receive it from their partners. We constructed a frequency chart of the average number of times per observation that each child received or offered help during cooperative tasks. As we compiled these instances, another factor intruded our thinking.

Who helps?

Who provides the help to the student with disabilities? We assumed that help would be provided primarily by peers who would be taught or coached to provide assistance. In some situations, however, we observed adults, most often a teaching assistant, joining the cooperative learning groups. Although the adult's participation probably raised the instances of help to the student with disabilities, it changed the character of the group's participation. The adult assumed the leadership role, controlling the structure and character of participation from other group members. The following example demonstrates the problem raised by adult participation in the group: For the few minutes prior to the arrival of the assistant, peers listened during Efrain's turns reading aloud, and corrected his errors or supplied words he could not read. After the teaching assistant arrived, other group members stopped helping and attending to Efrain's halting attempts. The adult began to read for Efrain during his turn, while Efrain sat passively. The assistant directed who would read and for how long, read the questions aloud, elicited

responses, judged correctness, and worded the answers children wrote on their papers. When no students in the group readily knew an answer, the assistant hunted through the text to find it. The structure of the group ceased to be "cooperative learning," and became small group, adult-directed instruction. The children grew increasingly apathetic in her presence, and ceased their cooperative and peer-sufficient patterns. By taking over responsibility for the group's progress, the adult seemed to imply that the group of students was not competent to fulfill the lesson goals.

We added a column to our frequency table to identify the primary source of help. In most instances, help was provided entirely during the observations by either peers or adults. When both peers *and* adults provided help, the "from" column identifies the source for at least 75% of the help provided.

Reporting "Receives help" as frequencies did not capture the character of the group interaction for the child with disabilities. Erica, for example, repeatedly asked the group for help but she was largely ignored, except to be handed a peer's paper to copy. The five instances of help on the table do not reflect the few attempts Erica made to read aloud, only to have her partner drown her out or mimic her attempts. After a while, Erica stopped trying to participate.

In another classroom, the character of group interaction seemed exemplary. The cooperative assignment begins with a pep talk from the special education student's partner:

Peer: "There's only five questions. Think we can do it, Loren?"

Loren: "Yeah!"

Peer: [reads the assignment they have been given] "Were your predictions correct?"

(The two work together for a few minutes, taking turns with the questions, the peer filling in difficult words and correcting Loren's oral reading errors.)

Peer: [reads the next question aloud, starts to give an answer, then stops] "Oh, wait! You're supposed to answer it."

Loren starts to answer, pauses--

Peer: [prompts] --"And?" [then waits, expecting Loren to finish.]

Loren finishes answering the question and begins to write it down. The partner glances at Loren's paper when she finishes her own, and says, "That's not how you spell *they*, Loren. Think!" He changes the spelling, and is congratulated: "That's right!"

Over the next few minutes they continue to discuss answers. The peer's role is reader, speller, and collaborator on wording, but Loren's answers are accepted as valid contributions by his partner, who often incorporates his thinking into her products. As they finish the teacher walks by with a high five for them both, remarking to Loren, but in the hearing of several others, "Your spelling looks good."

We added another column to our table for the contributions to the group task by the special education student and the matched peer.

Contributions

Clearly, the students classified into regular or special education categories differed in their contributions to the group tasks, however, in some groups all members contributed something of value, while in others children with disabilities did not contribute, or their attempts to contribute were ignored. During two of our observations, groups constructed drawings and displays illustrating story structures or themes which allowed artistic and spatial organizational skills of students with reading disabilities to be noticed and valued by their peers. These teachers occasionally constructed tasks specifically to take advantage of the strengths of students with below grade-level academic or English language skills.

Some teachers posted rules for participation: Everyone contributes. In these classrooms, team leaders tallied contributions by each group member on a yellow post-it for each facet of the group task, ensuring that everyone added to the product or solution.

Assignment length

The last two columns on the Table characterize the assignment length (Was the task shorter for the special education student than for others in the group?) and task completion. Students with disabilities usually worked with more sustained effort and made more contributions in groups when their assignment matched that of their peers. Sean was an

exception. His writing was extraordinarily slow and labored, and to enable his participation in the discussion and group product portions of the hour, his teacher circled key numbers on a list of vocabulary words and questions, and required just over half of the written work asked of his peers.

Tabby's shortened assignment, in contrast, probably inhibited maximal cooperation with her group. She worked with the group until her portion ("I only have to do the first three.") was completed, then she put her paper away (much to the frustration of the rest of the group) and did not participate in the last few minutes of discussion.

In Sean's case, shortening the assignment -- a strategy frequently used for reducing the frustration of students with disabilities who may work more slowly than their peers -- gave him the time to participate in group discussion and drawing a poster, however, shortening Tabby's assignment decreased her motivation to contribute to group efforts.

Classifying students as successful or unsuccessful in cooperative learning groups

Based on our minimum criteria--received appropriate help, contributed to the group effort, and accomplished the assigned task--we classified students as successful or unsuccessful cooperative participants. Table 1 presents these classifications and the average frequency of instances exhibited per observation of each target student.

The teacher role in successful participation of students with disabilities

During our observations, it seemed to us that success was mediated by the teachers' emphasis on academic goals and recognition of their students' achievements and contributions. Teachers of the most successful groups made public statements which validated the contributions of children with disabilities and raised their status among their peers. In her book, Designing Groupwork, Cohen (1986) suggests that raising the status of students least valued by their classmates should be a primary goal for teachers as they monitor group processes and talk with individuals and groups. Although Cohen did not spotlight students with disabilities, teachers in

this study who made valuing comments to and about children with disabilities also achieved more successful participation from those students.

These teachers expected competence from all students, including the children with disabilities, and required the same type and amount of work, while carefully arranging resources and help to enable children to complete tasks. They actively monitored groups, however, their intercession was directed toward group behavior more often than toward individuals, reinforcing norms of helpfulness and seeking and reinforcing a range of contributions to group tasks. Several kinds of evidence inform these conclusions: statements made by teachers during cooperative and large-group sessions, verification of the work assigned to and completed by students with special education classifications, observation of groups managing their own behavior and operating independent of adult intervention, and goal statements made by teachers during class and during interviews.

Teacher expectations for student competence

Tabby's participation in the group and the quality of help she received affirmed her successful cooperative learning experience. However, the teacher's lowered standards for her prohibited full group membership. Tabby was able to contribute to the task products, and the group was willing to help her, but because her assignment was shortened, she dropped out of the discussion prior to the end of the reading period. The teacher did not expect her to complete the last portion of the task, and group pressure was insufficient to keep her on task beyond the teacher's requirements.

Loren's teacher required him to complete the entire assignment acceptably. Her remarks to the group reflected her belief that groups can provide essential supports for all members. Her praise for Loren's spelling effectively reinforced his perseverance in correcting his work, and the group's effort to provide him sufficient spelling help. She is optimistic about his potential for growth in reading with the shift into cooperative learning:

"He avoided [work] a lot, and that was I think the problem with the [whole class] group, is that he could hide his work. So I think this is good, working with partners.

He knows he's not reading a book at the level some of the others are in the room, but he's very confident now. He's kind of a silly little boy, sometimes, he says silly, goofy things, and you sort of look at him and say, oh, shoot-- He really didn't say that. But he's a very caring person. And with good partners, he's capable of deep thinking; he's motivated by the assignment. For Loren, I think things are going fine."

Mike's teacher, while monitoring the groups as they worked, stopped to listen to a discussion on the usage of "maneuvering." She said, "Mike's definition is closer to my understanding," before walking on. Her affirmation raised Mike's status in the group. The teacher anticipated his competence and shared her acceptance of the student's thinking in front of his peers.

The same high expectations were obvious in our observation of the matched peers for Loren and Mike. Jacob, the average student in Loren's class, frequently contributed to group work by clarifying directions for others, and offering "why" explanations backed by supporting details. The work-focused interaction among the children in his group seemed to reinforce participation aside from the teacher's judgment. A whispered "discuss" as she passed and a check to note their progress acted as both a review of her expectations and reinforcement for a group which functioned well (which also included a student qualifying for Chapter 1 assistance identified earlier by the teacher as one of three students in her class most "at risk" in reading). As the group finished the assignment, one student sat back and said, "We're a good group," and a peer replied, "We're awesome."

Setting up expectations

Loren's teacher makes a point of teaching the cooperative behaviors she expects from her students. "In the beginning of the year we work a lot on [partner reading], they alternate each paragraph, and both eyes are on the page, and the listener is-- if the reader stumbles or has trouble with a word, the listener is supposed to help them. Provide it for them, help them sound it out. . . And I just sort of walk around and monitor." About pairing students and forming groups, she concludes, "He's working with Nick, now, and he's feeling good about it, and I can

see him sort of turning into one of the smart kids." We asked about her teaching role with the students with disabilities in her classroom, and she said, "I think I try harder with the kids that are struggling. I think I teach them -- I think I approach teaching about the same . . . I see myself as their teacher, definitely. I don't see, like, they're special ed so [the special educator] can handle them."

Mike's teacher attributes his success to the group formation: "I always put him with a group that's able to help. And I happen to have this year a very unusual class, a very compassionate, caring group. They're not especially high, but they're good. And they're always willing to help." We suspect that the teacher creates that compassionate, caring group by her expectations and her public and private comments to individual students and to working groups.

Tabby's teacher told us:

"There's more pressure on with the disabled, because you really want them to succeed, and I think it takes more of your time. . . . And I just think, you know, I think we're really responsible for all of them, and . . . my girl in special ed does so much better when there's someone there reinforcing, then she stays on task better, and is more successful. And I want her to learn the skill of partner work and being responsible for herself so we incorporate the two. Oh, and I think more help. And just having her more accountable, and knowing that someone's there and she has to do it. Because it seems like sometimes it's just really hard for [children with disabilities] to focus, and stick with it, and that would be assured if there was someone there encouraging, and listening and having them right there. I like the independence that partner work provides. I wouldn't want the adult to get in the way of that."

We asked Sean's teacher about the work she expects him to do. "Sean doesn't -- Sean isn't required to do all. When he first came in here, I thought, if he could do one question-- And he just now has reached so he can finish [a lesson with a shortened written product], which is a real thing to celebrate, because he came just before Christmas."

Frequently teacher expectations differed for the two classifications of students. Justin did not participate willingly in peer activities, however, Jacob, the average peer in the same class, participated in all whole group and cooperative learning activities over the four days of observation. The teacher told us, "[Justin's] not one that stays on task very well. He acts like he knows what's going on, but I think really, inside, he doesn't. Some of the kids that are struggling are just being pulled along, and they're maybe-- scraping by, sometimes? We just can't get to all of them." She does not believe the group can offer sufficient help to Justin, and she does not *require* the group to offer any help.

In other cases, teacher behavior was uniform, but the response of the paired children differed. Teacher directiveness to individuals rather than groups fits this category. Although the teacher's comments to Joey and Lucas individually were similar (gist: "stop horsing around and get the work finished"), the low-skilled child became more dependent on adults ("What do I do now?"), while Lucas redirected the teacher's comments to group outcomes ("Okay group! Five more minutes."). Children recently integrated into regular classrooms may be more reliant on adult direction and assistance, and less likely to look to their peers as sources for help unless teachers specifically teach them to do so. Children unused to completing the same quality or quantity of work as their peers may need to be explicitly taught that "Here, in this class, you do everything."

Cooperative learning as an inclusion strategy

Perhaps because the potential for assistance seems greater in a group of four than a group of thirty, cooperative learning is often suggested as an inclusion strategy for integrating children with disabilities into general classroom settings. Our findings suggest that cooperative learning does not necessarily fulfill this function. Without establishing cooperative norms and an ethic of helping, cooperative learning may exclude lower-skilled children from participation. The teachers of the children who operated most successfully in groups actively worked to raise the status of children with disabilities in the classroom by noticing and reinforcing participation and contribution to group efforts, and validating the comments of low-skilled children in large and

small group situations. They established means of ensuring participation and granted power to groups to provide the mutual support necessary for sustained effort by students with disabilities.

It is important to note that we categorized only 40% of the students with disabilities in this school as successful participants in cooperatively-structured reading activities. Two of the 12 students initially identified as subjects were dropped because they did not participate in cooperative activities during any of the six hours of observation. The odds for successful participation in group work by children with disabilities are slim.

Why did it so rarely succeed for low-skilled students? Among our classrooms, two common special education practices interfered with cooperative group functioning. One-to-one adult-child assistance encouraged adults to usurp leadership roles and curtail student-to-student interaction. Shortening assignments for the child with a disability granted that child permission to prematurely drop out of learning activities in the midst of group work.

Our findings suggest that successful use of cooperative learning as an inclusion strategy will require (1) rethinking and reorganizing of the ways special education provides resources, services, and modifications for students with disabilities, along with (2) sustained effort of regular class educators to raise the status of contributions by children with disabilities, and to establish and maintain norms of participation and helping.

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Unsuccessful Cooperative Experiences

	Receives help		From	Contributions		Task shorter	Task completed
Erica	5		peer	0		yes	no
Alysia		1			5		
Efrain	6		adult	0		yes	yes
Dustin		0			4		
Jaime	15		adult	0		yes	no
Katy		1			2		
Joey	2		peer	1		no	no
Lucas		1			5		
Matt	4		adult	0		no	yes
JA		0			6		
Justin	3		peer	0		no	no
Jacob		0			5		

Successful Cooperative Experiences

	Receives help		From	Contributions		Task shorter	Task completed
Tabby	6		peer	2		yes	yes
MC		3			5		
Loren	9		peer	3		no	yes
Jacob		1			8		
Sean	12		peer	2		yes	yes
Adam		1			5		
Mike	9		peer	6		no	yes
Marv		1			8		

Shaded students are the average-performing peers in the regular classroom.