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Cooperative Learning in a Middle School: Implications for
Students with Disabilities and Their Peers

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Abstract

Successful cooperative learning requires the commitment of group members to each other and to the attainment of group goals. Each member must understand that the group is responsible for each member's learning, and that group success depends upon the achievement of all of its members. Group members must be carefully chosen to ensure a positive group dynamic and the group activity must be one that promotes interdependence and allows all members to contribute. This research investigated how students and teachers experienced cooperative learning groups in inclusive classrooms in one economically, ethnically, and culturally diverse middle school. Data demonstrated widely varying effectiveness of cooperative learning groups for students with disabilities and their peers. Reasons for their ineffectiveness are discussed.

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Background and Rationale

By the late 1990s, cooperative and collaborative instructional strategies had been confirmed as highly effective means for meeting the needs of all students in diverse, multicultural, inclusive classrooms. Their use in elementary and early middle school classrooms has been widespread, and is in evidence even at the university level. The cooperative learning group, when properly implemented, promotes social and academic learning in a safe environment that supports active learning, construction of knowledge, and teamwork (Jacob, 1999; Hardin and Hardin, 2003). Because roles and learning tasks can be defined to require the contributions of students of all abilities and talents, it is an especially good framework for differentiated instruction (Udvari-Solner, Villa, & Thousand, 2003).

Use of the cooperative learning group is an effective strategy for meeting the needs of students with disabilities in a diverse, inclusive, general education classroom (Fore, Riser, & Boone, 2006; Sapon-Shevin, Ayres, & Duncan, 2002). Within the context of a heterogeneous small group, peers can clarify the nature of an assignment, interpret complex instructions, model performance, explain ideas, give feedback and corrections, take responsibility for difficult parts of the assignment, scaffold problem-solving efforts, and provide encouragement (Jenkins, Antil, Wayne, & Vadasy, 2003). In addition, because group members are interdependent, the cooperative learning group encourages peer support, connection, and mutual respect among students with varying talents, abilities, cultures and backgrounds. In short, it helps to build a

classroom community that values each of its members for their unique abilities and contributions (Sapon-Shevin, Ayres, & Duncan, 2002; Villa, Thousand & Nevin, 2010).

Although there are competing models for the implementation of cooperative learning groups, in all models, success depends upon how well five basic requirements are met. These are (Johnson & Johnson, 1999):

1. Positive interdependence – the success of each group member is linked to the success of others in their group
2. Face-to-face interaction – individuals within the groups help each other by sharing information and resources, challenging opinions/conclusions, and generally supporting the achievement of group goals
3. Individual accountability – Although students learn together, each individual must be accountable for 1) learning the material, and 2) contributing his/her fair share toward achievement of the group's goals
4. Interpersonal and small-group skills – students must possess or be taught the skills needed to work effectively in small groups.
5. Group processing – groups should evaluate their functioning and use of appropriate social skills. In general, this means receiving feedback and working together to improve the group's effectiveness.

Villa, Thousand, Nevin, and Liston (2005) confirm and extend these factors by noting five conditions for successful cooperative learning groups: a) a joint task or learning activity suitable for group work, b) small-group learning in teams of five or fewer members, c) a focus on the use of cooperative behaviors, d) positive interdependence through team members' encouragement of

one another's learning, and e) individual accountability and responsibility for participation and learning of each team member.

However, the effectiveness of the cooperative learning group depends on the factors previously listed. Successful cooperative learning requires the commitment of group members to each other and to the attainment of group goals. Each member must understand that the group is responsible for each member's learning, and that group success depends upon the achievement of all of its members. Group members must be carefully chosen to insure a positive group dynamic and the group activity must be one that promotes interdependence and allows all members to contribute (Gillies & Boyle, 2010; Villa, Thousand, Nevin, & Liston, 2005).

Although cooperative learning has been repeatedly shown to benefit students of all talents and abilities, there is evidence that teachers are using it less and less in the classroom. There appears to be a negative correlation between high-stakes testing and cooperative learning (Au, 2007; CSE Technical Report, 2003; Sloane & Kelly, 2003). While a few teachers have responded to increased pressure to raise test scores by implementing student-centered forms of instruction, the majority of teachers who feel pressure to increase test scores have increased the use of teacher-centered instructional strategies (i.e., direct instruction), and have increased focus on basic skills development (Sloane & Kelley, 2003; Faulkner & Cook, 2006).

If the instructional trend is toward the greater use of teacher-centered strategies, then it is possible that students are entering middle- and high schools less prepared to work well in cooperative groups. Also, student reactions to high-stakes testing might be manifested in increasingly competitive attitudes (Sloane & Kelly, 2003) that could undermine cooperation and collaboration.

High Stakes testing has also had the effect of narrowing curriculum. Jones (2007) found that teachers reported spending more time teaching areas that were tested (reading, mathematics, writing) and less time in areas that would not be tested in a given year. In addition, these teachers devoted instructional time to teach test taking strategies during the school year. The formats of any high school mathematics textbook published within the last five years reveal this trend; all have sections dedicated to exposing students to the types of multiple choice problems they might see on a high stakes test.

It should be noted that the high stakes tests mandated by No Child Left Behind are designed to measure only academic outcomes. Although it is important to assess the effectiveness and completeness of academic instruction, these tests do not reflect the attainment of other educational outcomes. In particular, they do not measure the numerous social outcomes educators strive to develop in their students. If teachers are “teaching to the test”, we should expect to see much less instructional time dedicated to the development of social skills in the classroom.

The purpose of this research project was to 1) shed light on the reasons teachers choose to use or not use cooperative learning strategies, 2) identify challenges they face in successfully implementing it, 3) provide an understanding of student attitudes toward cooperative learning, and 4) help us better understand the dynamics of the small group. A better understanding of the dynamics of the small group can help teachers improve implementation of cooperative learning in the classroom, especially with regard to students with disabilities. Finally, results of this research will provide direction for future investigation.

In particular, this research project focused on

- the classroom teacher's perceptions about the effectiveness of group learning for the student with disabilities, how teachers assess individuals after group learning, and what they perceive helps or hinders effective group learning for all students in their classrooms
- The non-disabled student's understanding of the group's purpose and his/her responsibility to the group, and his/her experience within the group
- The understanding of the student with a disability of the group's purpose, his/her responsibility to the group and his/her experience within the group.

Research was conducted during the 2010-2011 school year at a middle school located in a small, culturally, ethnically, and economically diverse Midwestern city.

Collection of Data

Copies of all data collection instruments can be found in the Appendix. Data were collected from students and teachers both by survey and by interview. In addition, students were observed during a small group activity. With the cooperation of two eighth-grade science teachers, an anonymous survey was administered to several of their classes. At that time, students willing to participate in small group interviews were recruited.

The student survey consisted of two Likert scale prompts about the effectiveness of cooperative group learning and their own behavior within those groups, a section requiring respondents to strictly rank seven aspects related to cooperative learning group outcomes, and demographic data.

Surveys to gauge attitudes toward and use of cooperative learning were distributed to all teachers at the school where research was conducted. To ensure anonymity, pre-addressed, stamped envelopes were provided for the surveys to be mailed by the respondents. Surveys were

distributed under cover of a letter that invited those willing to be interviewed to contact the researcher. Response to this survey was somewhat low, with approximately 21% of surveys returned. Only the eighth-grade science teachers agreed to be interviewed.

Results

Student Survey Data

To gauge student attitudes toward and behavior during small group learning, they were asked to respond to two Likert scaled statements. Scale values were Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree. Ninety-nine students responded to the Likert scale prompts. Overall, 69.4% of males and 62% of females strongly agreed or agreed that they learned a lot working in groups or with partners. The percentages of males and females who disagreed or strongly disagreed that group learning was effective for them were 6.1% and 8%, respectively. Forty-nine percent of males and 66% of females disagreed or strongly disagreed with the statement “I sometimes don’t do my fair share of the work”. Although these percentages differ substantially, because of the small sample size, the difference is notable, but a formal conclusion cannot be drawn as to whether or not there is a significant statistical difference related to gender.

The second part of the survey asked students to strictly rank seven outcomes of small group work. Overwhelmingly, male students (68.42%) ranked “I get a good grade” as the most important outcome of small group work. This was in sharp contrast to the 27.78% of girls who ranked this outcome as most important. However, 76.32% of boys and 80.56% of girls ranked getting a good grade within the top three outcomes. Only 15.79% of boys and 13.89% of girls ranked a good grade as a least important outcome (a rank of 6 or 7). At the other end of the scale,

84.21% of boys and 86.11% of girls ranked “My group shares ideas different from my own” at six or below.

The second least important outcome overall was “Everyone in my group learns the new material,” with 38.6% of boys and 36.11% of girls ranking it at 6 or 7. This ranking certainly does not reflect an understanding of interdependence within a learning group.

The Student Interviews

Three students, none of whom received special education services, attended a group interview conducted at the school. A close reading of the interview transcript illustrated, on one hand, an especially strong understanding of the function and purpose of cooperative learning groups, and on the other, an especially high level of frustration with mixed ability cooperative learning groups. All students are identified by pseudonym.

James

James was an academically talented, well-spoken student. He was especially gifted in mathematics, and was taking an accelerated geometry course at the local high school before joining his eighth-grade peers each morning. James expressed a great deal of dissatisfaction with mixed ability cooperative group learning. He did not like the interdependence that characterizes the learning group. When asked what he didn’t like about small group learning, he responded, “You’re graded and how people see you is based on how other people act, so you’re basically tied to that. If they screw up, it’s basically as everyone sees you as screwing up too, which annoys me.”

Because getting good grades and meeting deadlines were important to him, he reported doing most of the work within his groups and, in his words, “taking over” when grades and

meeting deadlines were in jeopardy. James believed it would be good to work in a learning group under limited circumstances. Those were that the project was sufficiently large so that one person alone could not do it, and that he had “a good team of people [he] trusted-- people that were efficient and diligent.” He agreed that it was important that all group members learn together, and tried to help struggling group members to learn, but said that he was not good at working side-by-side to help a team member meet his objectives, and said, “If I can’t do it, I really don’t have any idea what to do about it.” He believed that about 10% of the time, one or more of his team members did not understand the material, and group work collapsed. At that point, James would take over and independently complete the work. He would do this whether or not a team member was trying to fulfill his role. He reasoned, “It’s kind of a waste of time to try to help them, because that slows down the group and will get you behind and give you a bad grade and everything.”

James appreciated the value of hearing different ideas and approaches toward problems, but he preferred to solicit opinions and ideas from friends, presumably those whose opinions he had reason to value. He also preferred to work in groups whose members shared the same ability level. He recognized that he had trouble working in mixed ability groups. When Robinson indicated that he would try to slow down the pace of work in order for a teammate to understand what was happening (even though it might mean more homework), James had the following response: “That reminds me. That’s partially the reason why I don’t really help people. I have trouble with them. I have trouble helping them because I get annoyed really quickly if I go over it with them, and I’ve put it in simplest terms, and they don’t understand it. And it just really annoys me, especially if it’s been really obvious.” James was willing to answer short questions

within his group, but resented being put in a position where he had to explain what he considered to be fundamental concepts.

He preferred to work in same ability groups, and came from a school in which same-ability grouping was practiced. He also believed that classes should be grouped by ability. He said, “If you ability grouped in every single class, the more advanced kids would advance a lot faster to reach their goal.”

Denard and Robinson

Denard and Robinson were also academically talented students who took accelerated geometry. However, in contrast to James, both liked working in cooperative learning groups. Robinson liked working in the small group because, in his words, “Instead of having one brain on the [situation], there are more people working on it...then it can be easier and ... there can be more people teaching you things about it.” Denard liked sharing different opinions and the process of deciding upon best options. He also recognized that team members brought different strengths to bear and could make problem solving faster.

When asked what they liked least about small group learning, both said that they had had team members who did not “do their fair share of the work”. Robinson also identified being “paired up with someone who “hasn’t gone and done their homework and stuff” as a negative. He said, “I like to work with someone who knows what they’re doing.” On the subject of their responsibilities to their groups, they were in general agreement. Robinson believed that his responsibility was “to help all people in your group learn about stuff” and “to do the work you’re supposed to do”. Denard summed up his responsibility as follows: “I believe the objective is that you should get a good grade on your assignment, but that as you’re getting a good grade, you

should have the other members of your group learn if they are weaker on that subject, and help them, and make sure that everyone does a fair share.”

Both, when asked what action they would take when a team member did not perform his role, said that they would first intervene to get that person to do his part. Robinson said that if talking to the person about it did not work, he would ask the teacher to change the role of the uncooperative group member so that the group could progress. Both made a distinction between individuals who were merely uncooperative (not even trying to do the work) and those who struggled to fulfill their roles. Both indicated that they always tried to support those who were trying to fulfill their roles. Robinson identified some specific ways of supporting team members who struggled to fulfill their roles. They included note taking, reviewing notes and data with that teammate, and generally trying to clarify procedures and concepts. Denard showed particular empathy for team members who struggled with leadership roles. He said, “...I would definitely try my hardest to help them...so they could [sic] become comfortable in their role and they wouldn’t feel overwhelmed like I did when I had my position in the history project.”

Both boys knew how to solicit input from team members, and both believed that different opinions and ideas strengthened small groups and lead to better work by the group. Denard appeared to have especially strong social skills and an exceptional understanding of the function of cooperative learning groups. He demonstrated this by noting that if his group leader did not solicit opinions from all of his team, he would probably discretely talk to the leader afterward about the problem. He also noted that he thought teachers created mixed ability groups so that “the stronger ability kid will learn how to be more patient and help the lower ability one...and then the lower ability one might pick up on some of the habits of the stronger ability one to help [him] be successful in school.” Robinson shared this view, and he noted that sometimes “...when

you learn something you might want to get it done and you just want to complete it, but the person that got groups with you might not be as smart or something...might catch a mistake that you made... and it can help you out...”

On the subject of a single group grade, both believed that it was unfair if 1) a member of the group didn't do his fair share, or, 2) everyone's ideas were not considered or valued by the group.

The Teacher Interviews

In separate interviews, two eighth-grade science teachers, who taught the same hands-on curriculum, provided a picture of small group learning in their classrooms. Ms. C. was a veteran teacher with over 15 years experience, and Ms. P. was in her fifth year of teaching. The Physical Science curriculum was changed in 2008 to be more “hands on”, and both teachers have taught it since its introduction. It is important to note that lab work, performed two to three times a week by small groups, was integral to the curriculum. Given the frequency of the labs and their criticality to the curriculum, there was pressure to complete all labs on time.

Both teachers believed that all students could benefit from working in cooperative learning groups, because the group environment allowed students to “use the strengths they have” while being supported in areas of weakness by their peers. Said one, “The kids that know more can give their knowledge to the kids that may not know as much. I also think [they] get more individualized attention when they have a friend or somebody they feel comfortable with [who] can help them.”

Views about what most hinders the successful implementation of cooperative learning differed somewhat. Ms. C. identified off-task behavior as her greatest problem. She noted two

behaviors as off-task. The first was the tendency of students to view lab time as an opportunity to chat with their friends. The second behavior she identified as problematic was some students' failure to work cooperatively to complete the labs because "there are too many bosses in the group... Everyone wants to be the boss." According to Ms. C., this behavior correlated positively to gender. She regularly formed same sex learning groups for one interim period each year. She observed, "Girls typically work much more effectively together... Now, it's your turn to measure... it's your turn to pour that in... When the boys are together, sometimes they spend more time arguing. It's been a pretty consistent dynamic that I've observed over 16 years."

Ms. P did not note social chatting or the competitiveness of boys as a particular concern. She considered the biggest impediment to cooperative learning to be the failure of students within mixed-ability groups to work together. She said, "With the different ability levels, you have a lot of kids who know exactly what to do and how to do it. They want to zoom through everything and get it all done, and that leaves the other kids behind and on their own to try to figure it out."

Both teachers noted that there was a subset of academic high-achievers in their classes who, motivated by concerns about completion of and quality of the work, would take over roles that were not assigned to them. Ms. C. noted, "Even though [students have] specific jobs (roles), there are students that are really concerned about achieving. They'll just grab the lab sheet and start writing their answers so that they're sure, instead of sharing and trying to bring everyone on board." Ms. P. also noted, "There are kids who get all A+s [who think] 'I'm out to help myself and I want to make sure I get done what I need to and I'm not really worried about other kids...'" The teachers tried to remedy the problem of non-cooperation on the part of some of their students in a number of ways. Ms. C. assigned roles to her students. She ensured that all students

had numerous opportunities to play leadership roles over the year. Furthermore, when she saw a student usurping the role of another, she would intervene saying, “What was your job today and are you following your job description? And if you have a problem with the person who’s supposed to do that job, how can you handle it differently? How can you help them to do their job better?” Although Ms. P did not assign particular roles to her students, she also frequently had to intervene to ensure that all students had an opportunity to contribute to the work of the group. She noted that students with disabilities were sometimes marginalized to the point of invisibility within the groups. She said that all the students knew who the special education students were, and that frequently, division of work went something like “Well, I’m going to do this, you’re going to do that, but you (the student with a disability) are going to stand there and watch.” Ms. P. has tried assigning roles in the past, but found it very hard to keep track of who did what, and tired of hearing the students complain about the roles they were assigned. She believed role assignment caused more fights than it was worth.

Both teachers’ primary means of ensuring that students with disabilities are not marginalized and are supported in areas of weakness was to place them with students they knew will work well with them. These were students who had the academic ability to support their peers in areas where they needed help and were patient enough to do so. In practical terms, this meant an academically competent student willing to slow down the pace of work to accommodate a slower learner. Ms. P. noted that this type of student was “not the regular thing you see, and it’s hard, too, because you always try to put those kids that are really good leaders and good helpers with the kids that need the help, but sometimes they get tired of it, too. So it’s a hard balance to find.”

In an effort to increase interdependency among group members, both teachers have based the grade received by all members on one member's lab worksheet. This had caused great consternation among the students, but did result in a larger number of worksheets being completed. However, teachers did not do this consistently, because they recognized that some students would not complete their lab sheets despite the best efforts of their peers. Consequently, high-ability students who were not concerned with their team members' learning were rarely penalized for their behavior.

Both teachers circulated during group work in order to have some idea how the groups were working together and to develop formative assessments of the individuals in them. Ms. C. had each student complete a worksheet for the lab, but acknowledged that it was difficult to know if a student actually thought about the work or just copied answers from another group member's paper. Ms. P. generally had an idea of who did and did not understand lab results, and when she used sample data in lab follow-ups, she would always try to ask questions of those students she believed might not have understood key concepts.

On the question of whether or not eighth-grade students were well-prepared to work in cooperative learning groups, Ms. C and Ms. P differed. Ms. C believed that, with a few exceptions, most students worked well in these groups. Ms. P, on the other hand, strongly believed that students were not prepared to work cooperatively. She noted that working in cooperative groups was a skill that needed to be taught, but that the science teachers did not have the time to teach it. She said, "There are a lot of kids who don't know how to work with other kids. They don't have the social skills, the confidence or the knowledge to try to contribute. It would be nice if there were some kind of class that taught ...how to work with your peers or how to advocate for yourself or for what you need..." She continued, " I tell them all the time, you're

not going to get to pick who you work with in life, and you've got to learn how to give and take a little bit, but that's so abstract for most of them... some of them are mature enough to handle it, but others just can't."

Finally, Ms. C noted that she has had students who failed to work in small groups and that those students were of two types. The first type was a student "so egocentric or so perfectionist that [he] wants to do everything himself because [he] thinks he does it better than everyone else". She had tried to manage this type of student's behavior by taking her concerns to the parents and letting the student know that his citizenship grade would be affected. Unfortunately, although poor citizenship grades could keep a student off the Honor Roll, they in no way affected grade point average. Therefore, a student only concerned with his grade point average was not likely to be concerned by a low citizenship grade. The second type of student who had failed to work in a cooperative group was the student with an emotional or behavioral disorder. Often, if an aide were available, Ms. C would place that type of student in a group with the aide, who would "try to keep the group functioning."

The Teacher Survey

Of the seven surveys returned, six teachers reported using small group learning in their classrooms. The seventh, a math support teacher, reported that because of the small size of her classes and the varying curricular demands of individual students, forming small groups was not feasible. Of those who used small learning groups, all agreed or strongly agreed that they were an effective means for providing differentiated instruction. None of these found it difficult to define cooperative learning activities for their subject areas, which included English Language Arts, History/Social Studies, and Mathematics. There was no general consensus in response to

the statement “Students enter secondary school well-prepared to work in small groups”; two respondents disagreed or strongly disagreed, two were neutral, and three agreed or strongly agreed. Only two respondents found it difficult to do formative assessments of individuals working in small groups.

No respondent reported increasing or decreasing their use of small groups in response to results of the Michigan Education Assessment Program (MEAP) test results (The MEAP is a high-stakes test implemented to comply with requirements of the No Child Left Behind (NCLB) act). However, two respondents reported increasing their use of small learning groups in response to recent changes in the Michigan curriculum.

Discussion

From the perspectives of both students and teachers, the practice of cooperative learning in the classrooms studied was considered to be generally effective, but left much room for improvement. A large majority of students surveyed responded that they learned a lot working in small groups, but their teachers said there are many who “fall through the cracks.” Both teachers noted that they relied upon a subset of students in their classes to work in small groups with students with disabilities and students who learn more slowly. What characterized those students was academic competence and patience. In both classrooms were subsets of students who were academically competent, but focused on earning the highest grade for themselves in the least amount of time to the exclusion of all else. Teachers tried not to place students with disabilities with these students if they could help it, but also believed that everyone should work with everyone over the year. Furthermore, one teacher tried to reward and give a break to the students she consistently relied upon to support students with disabilities in small groups by placing them

in groups with their friends once or twice a year (between four and eight weeks of group work). This meant that 1) one group of students was doing more “heavy lifting” through the year, and 2) another group was not given the opportunity to develop the social skills needed to be successful in school and later, in adult life.

As was noted earlier, two of the pillars of effective cooperative learning are positive interdependence and group processing. Both teachers had attempted to increase a sense of interdependence by choosing one group member’s work on which to grade the group as a whole. This was somewhat successful, but neither teacher had applied this method consistently, in part, because some students did not complete their work in spite of the best efforts of their team members.

It should be noted that assigning group grades for academic work is somewhat controversial. Although some researchers consider it a legitimate means of increasing interdependency (Johnson & Johnson, 1999), others (Sapon-Shevin, Ayres, & Duncan, 2002; Sachar, 2003) have reported anecdotal evidence that assigning group grades has led to reduced cooperation and support for slower learners and students with behavioral disorders. Jame’s opinion supported the latter view; however, Denard and Robinson both acknowledged that when the group worked as it should, a group grade was fair. Unfortunately, both also readily revealed experiences in which a group member contributed nothing and received the same grade as his hardworking peers.

Group processing, in which group members assess how well their teammates performed their respective roles, was not performed in either classroom. Reasons for this were not made explicit. However, time constraints loomed large, and often groups could be seen frantically trying to complete labs before the ends of their class periods. Because how students perform in

their roles was not evaluated by group members, there was no penalty for failing to support one's team members. Consequently, opportunities to improve important social skills were lost.

On a positive note, two of the high ability students interviewed showed real willingness to learn with and from all members of their team. Denard, in particular, showed real empathy for others and an exceptionally good understanding of both the academic and social aspects of group learning. Although both preferred to work in groups of higher ability, both understood the importance of mixed ability grouping, and both identified being hardworking as the trait they most valued in their team members.

Although there were students capable of supporting every teammate's learning in all classes, students with disabilities continued to be marginalized in the small groups. Many students with disabilities were not strong self-advocates, and the stigma of disability was very real. If no teammate advocated for or supported them, their voices would not have been heard and they did not have the opportunity to participate in learning.

Students of higher ability who had the social skills to work effectively with students who struggled were most frequently placed with them. This meant 1) the same students were assuming a greater share of the support of students who struggle and 2) those students deemed to be unwilling to work with students who progress more slowly were not compelled to develop those social skills.

Cooperative learning groups are effective frameworks for active learning and differentiation only where students have been explicitly taught the small group skills needed to support the conditions, previously described in this paper's introduction, upon which success is contingent (Johnson & Johnson, 1999; Ross & Rolheiser, 2003; Villa, Thousand, & Nevin, 2007). Even eight-grade students need to be reminded of how they can effectively interact with

and support one another. Furthermore, cooperative learning must be within the context of a classroom that promotes both academic and social outcomes, among which is the development of a community in which all students are supported and celebrated by teachers and peers for their worth as individuals (Thousand, Villa, and Nevin, 2002). When teachers explicitly teach and motivate the use of social skills, they communicate expectations about how students should interact with each other. Villa, Thousand, and Nevin (2010) note that student achievement increases when a teacher teaches, monitors and acknowledges members' use of social skills.

Survey and interview data from this research suggest that 1) many students lack the social skills and motivation to gain all they can from group learning and 2) pressure to cover the academic curriculum has de-emphasized the social outcomes of education. The teachers, although cognizant that not all students were teaching and learning cooperatively, believed there was not time to both cover the curriculum and teach key social skills. This was borne out by both their statements and the fact that no time was allocated for groups to conduct formal processing. There is broad consensus that group processing is essential to the development of the social skills that improve students' ability to function in cooperative learning contexts (Johnson & Johnson, 1999; Gillies & Haynes, 2010). During group processing, students reflect upon how they have worked through conflicts in ideas and opinions, overcome struggles to learn new content and gained understanding of complex material. Through the recognition of their contributions and accomplishments, they gain a sense of self-determination and empowerment, and become more enthusiastic about group work (Villa, Thousand, & Nevin, 2010). All educators are taught ways to implement the group processing component. That it was not included may reflect the emphasis of academic outcomes over social ones that seem to be a consequence of high-stakes testing.

Limitations

This research attempted to provide a picture of cooperative learning groups in one Midwestern school with a socially, economically, and culturally diverse student body. To some degree, this has been accomplished, but the picture is incomplete. The voices of students with disabilities are missing. With the help of special education teachers at the school, another attempt to interview a focus group of eighth-grade students with disabilities will be made in the 2011-2012 school year.

A second problem with the data collected is the small size of the teacher survey sample. Because it is so small, no conclusions can be drawn from its results. Finally, a large number of students did not strictly rank cooperative learning group outcomes on the student survey, and that portion of the data was not included in the results. Because significant proportions of African-American, Asian, and Latino students did not strictly rank cooperative learning group outcomes, they are underrepresented in the survey results.

Directions for further research

Previous research confirms that how close cooperative learning groups come to achieving social and academic objectives depends upon a combination of 1) social skills needed to work as part of a team, 2) the appropriate combination of strengths brought to the group by its members, and 3) the level of commitment of group members to each other and to the attainment of group goals . Because teachers have identified deficiencies in social skills and commitment to fellow team members as problems, a study of the effectiveness of teaching how to work in small groups would be useful. The question of whether or not the strict enforcement of “one grade for all” will increase or decrease cooperation over the long run is also an area for study. The effects of

carefully structured group processing on levels of cooperation and commitment is also a potential area for study. Finally, the effect high-stakes testing has on both curriculum and instructional strategies must be further investigated.

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Appendix

Coop Learning in a Middle School

Student Survey taken on: _____

You are often asked to work in learning groups in the classroom. The following questions are about your experience in those groups. There is no right or wrong answer.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I learn a lot by working in groups/ with a partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I sometimes don't do my fair share of the work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rank the following in order of importance.	Most Important (1)	(2)	(3)	Somewhat Important (4)	(5)	(6)	Least Important (7)
<i>My group completes the task assigned on time</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>I perform my role well.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>I do my fair share of the work.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Everyone in my group learns the new material.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>I work successfully as part of a team.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>I get a good grade.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>My group shares/critiques ideas different from my own.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I am _____ years old and my gender is:	Male <input type="radio"/>	Female <input type="radio"/>					
Race/Ethnicity: (Check all that apply)	African American <input type="radio"/>	Asian <input type="radio"/>	Caucasian <input type="radio"/>	Latino <input type="radio"/>	Native American <input type="radio"/>	Other <input type="radio"/>	Mixed / Multi-ethnic <input type="radio"/>
Do you take accelerated classes?	Yes <input type="radio"/>	No <input type="radio"/>					
Do you speak English at home?	Yes <input type="radio"/>	No <input type="radio"/>					

Please write anything else you would like us to know about your small group experience on the back of this sheet.

Teacher Survey taken on (date) _____

For how many years have you been teaching?	<input type="text"/>							
What grade(s) do you teach?	6th	7th	8th	9th	10th	11th	12th	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
What subject(s) do you teach?	ELA	History / Soc. St.	Math	Science	Foreign Lang.	Art / Music	Resrce Room	Other
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you use cooperative/collaborative learning groups in your classroom?	Yes	No						
	<input type="radio"/>	<input type="radio"/>						
Do you teach students who receive special education services in your classroom?	Yes	No						
	<input type="radio"/>	<input type="radio"/>						

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Cooperative/collaborative learning groups provide an effective framework for differentiated instruction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is difficult to define cooperative learning activities and roles for my subject area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students entering secondary school are well-prepared to work in small groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Group work makes formative assessment of individuals difficult.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have increased my use of cooperative/collaborative learning groups in response to MEAP test results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have decreased my use of cooperative/collaborative learning groups in response to MEAP test results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have increased my use of cooperative/collaborative learning groups in response to recent changes in the Michigan Curriculum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have decreased my use of cooperative/collaborative learning groups in response to recent changes in the Michigan curriculum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you indicated "other" under subject taught, please name the subject area you teach.