Improving Intergroup Relations:
Lessons Learned from Cooperative Learning Programs[1]

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Improving intergroup relations among diverse groups of students is becoming a high priority among educators. As schools become more diverse and destructive conflict and violence become more common in schools, there is an increasing concern that schools not become the battlegrounds for the next wave of racial unrest in this country. Undeniably, the schooling context for America's youth is increasingly multicultural (Heath, 1995), and conflicts will be defined along racial and ethnic lines (Cooper, 1996). Unfortunately, the vast majority of research about intergroup relations in schools is now 15 to 20 years old and focuses mostly on improving relations between Whites and Blacks (Schofield, 1995). Little empirical evidence exists about intergroup conflict in settings in which many different racial and ethnic groups coexist and where the boundaries between groups are blurred by overlapping categories (McLoyd, 1990; Quintanilla, 1995).

Given the enormous diversity found today in many public schools, racial and ethnic relations are much more complicated than they were just a decade ago. Public education is one of the few social institutions where the entire texture of the American diversity can be experienced. Consequently, intergroup relations are no longer affected just by the competition for resources and attention, but must now consider the relative power and status of the racial and ethnic groups involved. If diversity is to be viewed as an asset to be built upon in schools, rather than a problem to be solved, we must learn more about how schools can foster positive social relationships among students of different racial and ethnic backgrounds.

Schools play a vital role in helping adolescents understand, through various representations and practices, the ways in which difference is constructed (Giroux, 1992). The challenge for educators is to create the conditions under which students are likely to cross the borders that delimit their narrow personal and social worlds and provide opportunities to

experience the worlds of those different from them. Positive cross-ethnic interactions help students expand their own self identify and build an appreciation of difference at the same time.

One of the most innovative widely prescribed strategies to manage and build upon the strength of the increasing diversity found in classrooms is the use of cooperative learning techniques (Slavin, 1995a). Cooperative learning involves small teams of students of varying academic achievement levels employing a variety of learning activities that promote academic success for each team member. Research on the effects of cooperative learning has consistently found that the use of such methods improves academic achievement as well as intergroup relations (Lopez-Reyna, 1997; Slavin 1995b, 1992, 1991b). In many cases, cooperative learning provides students an opportunity to be grouped not only heterogeneously by academic performance, but also by race, gender, and language proficiency. When using cooperative learning methods, students are asked to work in heterogeneous groups to solve problems and complete tasks. The intent of cooperative work groups is to enhance the academic achievement of students by providing them with increased opportunity for discussion, for learning from each other, and for encouraging each other to excel.

Because cooperative learning groups encourage positive social interaction among students of diverse racial and ethnic backgrounds, they have great potential to facilitate the building of cross-ethnic friendships and to reduce racial stereotyping, discrimination, and prejudice. When students work cooperatively, they have the opportunity to judge each other on merits rather than stereotypes (McLemore & Romo, 1998). This article, adapted from an earlier review (Slavin, 1997), presents a summary of the research that suggests that intergroup relations in desegregated schools can be improved by applying a variety of cooperative learning classroom interventions that are based on Allport's (1954) contact theory.

Intergroup Relations and Cooperative Learning

Social science inquiry on race and intergroup relations has been dominated by tenets of Gordon Allport's research. Allport's *The Nature of Prejudice* (1954) has served as the basis for the study of intergroup relations since the mid-fifties. Allport cited evidence that asserts that when students of diverse backgrounds have the opportunity to work and get to know one another on equal footing, they become friends and find it more difficult to hold prejudices against one another (Slavin, 1995b, 1991a).

While Allport's contact theory has been updated and expanded over the years (Hewstone & Brown, 1986; Pettigrew, 1986; and Cook, 1978), positive cross-ethnic relationships among students are an anomaly rather than the norm on many desegregated school campuses above the elementary school level. It was assumed after the *Brown* decision that desegregation would improve relations between students of different ethnic backgrounds. Despite efforts by educators, policymakers, and researchers, however, youth from different backgrounds still have limited interactions in school settings (Schofield, 1995; Slavin, 1995b; Romo & Falbo, 1996).

In many schools, cross-ethnic interaction between students is superficial and competitive (Slavin, 1995b). Outside the classroom, students compete for limited positions on athletic teams, newspaper staffs, and student governments --organizations that are oftentimes racially identifiable, and fail to provide opportunities for positive cross-ethnic interactions. The limited contact between students of diverse backgrounds fosters harsh stereotypes, and racial tensions persist (Crain et al, 1982; Oakes & Wells, 1995). Negative stereotyping is often used to justify maintaining hostility, contempt, and resentment toward others (Lilli & Rehm, 1990). Unfortunately, research shows that children, rather than being taught how to value and celebrate

diversity, are more apt to be taught that intolerance is an acceptable reaction to diversity (Schwartz, 1996), which can lay a foundation for racism in adulthood.

Cooperative Learning

Cooperative learning is a well-documented and frequently recommended strategy for enhancing academic (Cohen & Lotan, 1997; Slavin, 1995a, 1995b, 1990; & Sharan, 1994), cognitive (Lotan & Whitcomb, 1998), and social (Slavin, 1995b; Stevens, R.J. & Slavin, R.E., 1995) outcomes for students. The term applies to a set of instructional strategies that involve students working collaboratively in groups with little teacher supervision (Deering, 1989). Cooperative learning methods attempt to reduce competition or individualism in classrooms by rewarding students based on the performance of all individuals in their group (Aronson, 1978; Slavin 1983; Johnson & Johnson, 1987). In some cooperative learning methods, the group is awarded points or recognition based on the average academic performance of each member of the group. Teachers often delegate authority and responsibility for group management and learning to the students (Cohen, 1994). The instructional methods used are structured to give each student a chance to make substantial contributions to the team, so that the teammates will be equal – at least in the sense of role equity specified by Allport. It is important to note that students working in groups does not in itself constitute cooperative learning (Johnson et al, 1993), but that cooperative learning groups place emphasis on the academic learning success of each individual member of the group (Slavin, 1995a).

One review of research on cooperative learning (Slavin, 1995a) identified fifty-two studies conducted over periods of at least four weeks in regular secondary schools (grade 6-12) that have measured effects of student achievement. These studies all compared the effects of

cooperative learning with effects of traditionally taught control groups on measures of the same objectives pursued in all classes. Teachers and classes were either randomly assigned to cooperative or control conditions, or they were matched on pretest achievement level and other factors. Of these studies, thirty-three (63 percent) found significantly greater achievement in cooperative than in control classes. Sixteen (31 percent) found no differences, and in only three studies did a control group significantly out-perform the experimental group.

Cooperative learning methods explicitly use the strength of the desegregated school – the presence of students of different races or ethnicites – to enhance intergroup relations (Slavin, 1995b). When teachers assign students of different races or ethnicities to work together, students are sent a strong positive message regarding cross-cultural interaction. Although increasing positive intergroup relations may not be explicitly stated by teachers as a goal of cooperative learning, it would be difficult for students to believe that the teacher supports racial separation when the teacher has assigned the class to multiethnic teams. Slavin (1995) suggests that, at least in theory, cooperative learning methods satisfy the conditions outlined by Allport for positive effects of desegregation on race relations: cooperation across racial lines, equal status roles for students of different races, contact across racial lines that permits students to learn about one another as individuals, and the communication of unequivocal teacher support for interracial contact.

There are eight principal well-researched cooperative learning methods that embody the principles of contact theory. These methods are relatively easy to implement, widely applicable in terms of subject matter and grade level, and easily integrated into an existing school without additional resources. In most cases, these methods have shown to improve achievement as well as intergroup relations (see Slavin, 1995a). Four of the methods were developed and evaluated at

the Center for Social Organization of Schools at Johns Hopkins University. These are Student Teams-Achievement Divisions (STAD), Teams-Games-Tournament (TGT) (Slavin, 1986), Team-Assisted Individualization (TAI) (Slavin, Leavy & Madden, 1984), and Cooperative Integrated Reading and Composition (CIRC) (Stevens et al, 1987). A fifth technique, "Jigsaw Teaching" (Aronson et al, 1978), has been evaluated in several desegregated schools, and is widely used both in its original form and as modified by Slavin (1986) and by Kagan (1995). Methods developed and assessed at the University of Minnesota (Johnson & Johnson, 1987) have been studied in desegregated schools, and Group Investigation (Sharan & Sharan, 1992) has been studied in Israeli schools that include European and Middle Eastern Jews. Brief descriptions of these methods appear in the following section; for more detailed descriptions, see Slavin, 1995a; Kagan, 1995.

Research on Cooperative Learning and Intergroup Relations

Many field experiments have evaluated the effects of cooperative learning methods on intergroup relations. This review emphasizes studies in which the methods were compared to control groups in elementary or secondary schools for at least four weeks (median duration = 10 weeks), and in which appropriate research methods and analyses were used to rule out obvious bias. Study Ns ranged from 51 to 424 (median = 164), grade levels from 4 to 12, and percent minority from 10% to 61%. Most of the studies used sociometric indices (e.g., "Who are your friends in this class?"), peer ratings, or behavioral observation to measure intergroup relations as pairwise positive relations between individuals of different ethnic backgrounds. Some studies defined intergroup relations in terms of attitudes toward various ethnic groups. Several other studies used such sociometric questions as "Who have you helped in this class?" Because only students in the cooperative learning classes were instructed to help their classmates, such

measures are biased toward the cooperative learning treatments; thus, the results of these measures are not discussed. Also, observations of cross-racial interaction during the treatment classes, another measure of implementation rather than outcome, are not considered as intergroup relations measures.

Main Effects on Intergroup Relations

The experimental evidence on cooperative learning has generally supported the main tenets of contact theory (Allport, 1954). With only a few exceptions, this research has demonstrated that, when the conditions outlined by Allport are met in the classroom, students are more likely to have friends outside their own racial groups than they would in traditional classrooms, as measured by responses to such sociometric items as "Who are your best friends in this class?"

STAD

In STAD (Slavin, 1995a), the teacher presents a lesson, and students then study worksheets in four-member teams. Following this, students take individual quizzes, and team scores are computed based on the degree to which each student has improved over his or her own past record. The team scores are recognized in newsletters.

The evidence linking STAD to gains in cross-racial friendships is strong. In two studies, Slavin (1977, 1979) found that students who had experienced STAD over periods of 10-12 weeks gained more in cross-racial friendships than did control students. Slavin and Oickle (1981) found significant gains in White friendships toward African Americans as a consequence of STAD, but found no difference in African American friendships toward Whites. Kagan and colleagues (1985) found that STAD (and TGT) reversed a trend toward ethnic polarization of

friendship choices among Anglo, Latino, and African American students. Sharan and colleagues (1984) found positive effects of STAD on ethnic attitudes of both Middle Eastern and European Jews in Israeli schools.

Slavin's (1979) study included a follow-up into the next academic year, in which students who had been in the experimental and control classes were asked to list their friends. Students in the control group listed an average of less than one friend of another race, 9.8% of all of their friendship choices; those in the experimental group named an average of 2.4 friends outside their own race, 37.9% of their friendship choices. The STAD research covered grades 2-8, and took place in schools ranging from 13% to 61% minority.

TGT

TGT is essentially the same as STAD in rationale and method. However, it replaces the quizzes and improvement score system used in STAD with a system of academic game tournaments, in which students from each team compete with students form other teams of the same level of past performance, to try to contribute to their team scores (see Slavin, 1986).

DeVries, Edwards and Slavin (1978) summarized data analyses from four studies of TGT in desegregated schools. In three of these, students in classes that used TGT gained significantly more friends outside their own racial groups than did control students. In one, no differences were found. The samples involved in these studies varied in grade level from 7-12 and in percentage of minority students from 10% to 51%. In addition, Kagan et al. (1985) found positive effects of TGT on friendship choices among African American, Mexican American, and Anglo students.

TAI

TAI combines the use of cooperative teams (like those in STAD and TGT) with individualized instruction in elementary mathematics (Slavin et al, 1984). Students work in four to five-member teams on self-instructional materials at their own levels and rates. Students themselves take responsibility for all checking, management, and routing, and help one another with problems, freeing the teacher to spend more time instructing small groups of students working on similar concepts. Teams are rewarded with certificates if they attain preset standards in terms of the number of units mastered by all team members each week.

Two studies have assessed the effect of TAI on intergroup relations. Oishi, Slavin, and Madden (1983) found positive effects of TAI on cross-racial nominations on two sociometric scales, "Who are your friends in this class?" and "Who would you rather *not* sit at a table with?" No effects were found on cross-racial ratings of classmates as "nice" or "smart," but TAI students made significantly fewer cross-racial ratings as "not nice" and "not smart" than did control students. In a similar study, Oishi (1983) found significantly positive effects of TAI on cross-racial ratings as "smart" and on reductions in ratings as "not nice." The effect on "smart" ratings was due primarily to increases in White students' ratings of African American classmates.

Jigsaw

The original Jigsaw method (Aronson et al, 1978) assigned students to heterogeneous six-member teams, and each member was given a unique set of information to be discussed in "expert groups" made up of students from different teams who were given the same information.

The “experts” returned to their teams to teach the information to their teammates. Finally all students were quizzed, and received individual grades.

Jigsaw II modifies Jigsaw to correspond more closely to the Student Team Learning format (Slavin, 1995a). Students work in four- to five-member teams. All students read a chapter or story, but each team member is given an individual topic on which to become an expert. Students discuss their topics in expert groups and then teach them to their teammates, as in original Jigsaw. However, quiz scores in Jigsaw II are summed to form team scores, and teams are recognized in a class newsletter as in STAD.

The effects of the original Jigsaw method on intergroup relations are less clear than those for STAD, TGT, or TAI. Blaney and colleagues (1977) did find that students in desegregated classes using Jigsaw preferred their Jigsaw groupmates to their classmates in general. However, since students’ groupmates and their other classmates were similar in ethnic composition, this cannot be seen as a measure of intergroup relations. No differences between the experimental and control groups in inter-ethnic friendship choices were reported.

Gonzales (1979), using a method similar to Jigsaw, found that Anglo and Asian American students had better attitudes toward Mexican American classmates in the Jigsaw groups than those in control groups, but he found no differences in attitudes toward Anglo or Asian American students. In a subsequent study, Gonzales (1981) found no differences in attitudes toward Mexican American, African American, or Anglo students in Jigsaw and control bilingual classes.

The most positive effects of a Jigsaw-related intervention were found in a study of Jigsaw II by Ziegler (1981) in classes composed of recent European and West Indian immigrants and Anglo-Canadians in Toronto. She found substantially more cross-ethnic friendships in the Jigsaw

II classes than in control classes, both "casual friendships" ("Who in this class have you called on the telephone in the last two weeks?") and "close friendships" ("Who in this class have you spent time with after school in the last two weeks?").

Johnson Methods

In cooperative learning methods developed by David Johnson and Roger Johnson (1987), students work in small heterogeneous groups to complete a common worksheet, and are praised and rewarded as a group. Of all the cooperative learning methods, these are the closest to a pure "cooperative" model. Two of the Johnson's studies have examined intergroup relation outcomes, Cooper, Johnson, Johnson, and Wilderson (1980) found greater friendship across race lines in a cooperative treatment than in an individualized method in which students were not permitted to interact. However, there were no differences in cross-racial friendships between the cooperative condition and the competitive condition in which students competed with equals (similar to the TGT tournaments). Johnson and Johnson (1981) found more cross-racial interaction in cooperative than in individualized classes during free time.

Group Investigation

Group Investigation (Sharan & Sharan, 1992), developed by Shlomo and Yael Sharan and their colleagues in Israel, is a general classroom organization plan in which students work in small groups, using cooperative inquiry, group discussion, and cooperative planning and projects. In this method, students form their own two- to six member groups. The groups choose subtopics from a unit being studied by the entire class, further break their subtopic into individual tasks, and carry out the activities necessary to prepare a group report. The group then

makes a representation or display to communicate its findings to the entire class, and is evaluated based on the quality of this report.

In a study in Israeli junior high schools, Sharan et al. (1984) compared Group Investigation, STAD, and traditional instruction in terms of their effect on relationships between Jews of Middle Eastern and European backgrounds. They found that students who experienced Group Investigation and STAD had much more positive ethnic attitudes than students in traditional classes. There were no differences between Group Investigation and STAD on this variable.

Wiegel et al. Method

Wiegel et al. (1975), working in tri-ethnic (Mexican American, Anglo, and African American) classrooms, conducted one of the largest and longest studies of cooperative learning. They evaluated a method in which students in multiethnic teams engaged in a variety of cooperative activities in several subjects, winning prizes based on team performance. They reported that their cooperative methods had positive effects on White students' attitudes toward Mexican Americans, but not on White-Black, Black-White, Black-Hispanic, Hispanic-Black, or Hispanic-White attitudes. They also found that cooperative learning reduced teachers' reports of interethnic conflict.

The effects of cooperative learning methods are not entirely consistent, but 16 of the 19 studies reviewed here demonstrate that, when the conditions of contact theory are fulfilled, some aspect of friendship between students of different ethnicities improves. In a few studies (e.g., Slavin & Oickle, 1981; Gonzales, 1979; Wiegel et al., 1975), improvements in attitudes were

primarily improvements in the attitudes of Whites toward minority classmates, but in most studies, attitudes toward White and minority students were improved to the same degree.

It is important to note that in addition to positive effects on intergroup relations, cooperative learning methods have positive effects on student achievement. This is particularly true of STAD, TGT, and TAI—structured methods that combine cooperative goals and tasks with a high degree of individual accountability (see Slavin, 1995a), as well as Group Investigation (Sharan & Sharan, 1992). Thus it is apparent that cooperative learning methods have positive effects on relationships among students of different races or ethnicities, while also increasing their achievement.

Sustaining New Cross-Racial Friendships Over Time

Forces that promote the formation of homogeneous peer groups in schools include geography, socioeconomic factors, and a preference for particular activities (Lott & Lott, 1965). These factors can be accentuated and lead to overt prejudice and interracial hostility when race is considered. Given the many forces operating against the formation of cross-racial friendships, it would seem that if cooperative learning influences these friendships, it would create relatively weak relationships rather than strong ones (see, for example, Schofield, 1991). It would seem unlikely that a few weeks of cooperative learning would establish the trust and respect needed to build strong interracial friendships.

A secondary analysis of the Slavin (1979) STAD study by Hansell and Slavin (1981) investigated this hypothesis. The sample included 424 seventh- and eight-grade students in 12 inner-city language arts classrooms. Classes were randomly assigned to cooperative learning (STAD) or control treatment for a 10-week program. Students were asked on both pre- and post-tests, “Who are your best friends in this class? Name as many as you wish,” in a free-choice

format. Choices were defined as “close” if they were among the first six made by students and “distant” if they ranked seven or later. The reciprocity and order of choices made and received were analyzed by multiple regression.

The results showed that the positive effects of STAD on cross-racial choices were primarily due to increases in strong friendship choices. Reciprocated and close choices, both made and received, increased more in STAD than in control group classes. Thus, contrary to what might have been expected, this study showed positive effects of cooperative leaning on close, reciprocated friendship choices, the kind of friendships that should be most difficult to change. The implications of such research results are encouraging. These findings suggest that positive social relations among students of differing racial and ethnic backgrounds help students to transcend and transform shared cultural norms and attitudes which can prohibit meaningful cross-cultural interactions. Such transformation does not require students to ignore or eliminate the differences that exist among their classmates, in their histories, communities, and families, but rather to understand them using a different cultural paradigm. The positive social relations that are built between students of different racial and ethnic backgrounds as they work collaboratively to solve complex problems or to complete meaningful tasks are not simply a matter of students liking each other or having positive thoughts about each other. These cross-cultural interactions are about broadening the cultural frames of reference that define the social worlds and dictate social network patterns for these students.

Conclusion

Cooperative learning is an instructional approach that has been shown to promote a variety of positive cognitive, affective and social outcomes. The intent of cooperative learning is to enhance academic achievement by providing students with increased opportunities for

discussion, learning from each other, and by allowing students to divide up tasks in ways that tap into their academic strengths. Cooperative learning promotes some of the most important goals in American education—increasing the academic achievement of all students while simultaneously improving intergroup relations among students of different racial and ethnic backgrounds (Deering, 1989). With the increasing racial diversity found in America's classrooms, instructional strategies that can achieve these goals must be refined and widely disseminated. It is undeniable that race and ethnicity are important ways that students define themselves in schools, and racial intolerance and hostility between students of different racial and ethnic backgrounds still persists. Research shows that many youths still carry the legacy of ethnic and racial hatred engendered by their parents, grandparents, and community. Although acts of intolerance and racism, in most cases, are more subtle today than they were 20 years ago (Vernay, 1996), we are seeing a resurgence of overt, racist, and violent manifestations of discrimination and prejudice on school campuses. If schools are to serve as a safe haven from violence and a place for students to learn how to be good citizens, the use of instructional strategies such as cooperative learning will need to be more widespread.

The research presented in this article suggests that as students talk and work with each other in cooperative learning groups, they are not only acquiring academic knowledge and skill, but are also constructing a shared cultural paradigm for defining the group, its work, and the social identities of the participants. They are establishing a group culture – a culture that sets the social context in which social relationships among students are defined, established, and given value and meaning. The hope is that students will carry this cultural paradigm into adulthood. Although the research relating cooperative learning to intergroup relations clearly indicates that cross-cultural friendships are developed when students work in cooperative work groups,

additional research is needed to better understand intergroup behavior, particularly outside of the schooling context. A few studies (Oishi, 1983; Ziegler, 1981) have found positive effects of cooperative learning on self-reported cross-racial friendships outside of class, but behavioral observations in nonclassroom settings is still needed. Such research will illuminate the important role schools can play in reducing racism, prejudice, and discrimination in the larger society.

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