ARTICLES

Peer Mediation Training and Program Implementation in Elementary Schools: Research Results

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This research examines the implementation and effects of a peer mediation program in twenty-eight urban elementary schools. The Center for Conflict Resolution, a program of the Cleveland, Ohio, public schools, provided intensive training and follow-up support for teams of peer mediators and adult advisers at each school. Trainers were youths from the same community. Qualitative and quantitative evidence indicate that this program significantly improved the average eight- to eleven-year-old student's understanding of and inclination to use nonviolent conflict resolution and his or her capacity to achieve in school. The study outlines the specific commitments from administrators and other staff members that were required to develop and implement equitable, effective, and sustainable programs.

Until the last few years, little systematic research was available regarding the implementation or effectiveness of conflict resolution programs, including peer mediation, in schools. However, one kind of evidence has existed for years: on-the-ground educational practitioners' interest in and commitment to peer mediation has fueled the rapid spread of these innovations. Educators have voted with their feet. Thousands and thousands of new programs have been adopted and diversified in schools across Ohio (Ohio Commission on Dispute Resolution and Conflict Management, 1997) as well as across the United States, Canada, and much of the world (CREnet/ACR, 2000; Hall, 1999; Lawton, 1994; Strickland and others, 1995).

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The autonomous and student-centered nature of many peer mediation programs makes programs less systematically comparable across different sites for research purposes (Horowitz and Boardman, 1994; Moriarty and MacDonald, 1994). Until recently, there has been little funding for rigorous or cross-program research, partly because of the programs' already expanding popularity. Many of the earlier studies of school-based peer mediation and negotiation focused on small samples or single programs, without giving much attention to the programs' theoretical underpinnings, relationships with other initiatives, or fit within school contexts (Carter, 1995; Jenkins and Smith, 1995; Kalmakoff and Shaw, 1987). Although this research generally presented a positive evaluation of school-based peer mediation programs, it was unclear how applicable the results might be within other contexts.

The most pronounced impact of peer mediation programs has typically been on the student mediators themselves. These students have the most sustained opportunities to experience and practice the roles, relationships, and skills associated with this form of nonviolent problem solving (Gentry and Benenson, 1992; Lam, 1988; Shulman, 1996; Van Slyck and Stern, 1991). Diverse teams of peer mediators—including students with different levels of academic ability who represent diverse social, cultural, and gender groups—tend to improve the strength, sustainability, and effectiveness of mediation programs, as compared with more homogeneous teams (Day-Vines and others, 1996; DeJong, 1994; Schrumpf, Crawford, and Bodine, 1997).

Existing research generally agrees that where there are sufficient mediators on duty, peer mediation programs are associated with a reduction in physical aggression (Cunningham and others, 1998). Many researchers have associated peer mediation with reduction in disciplinary actions (Bodine and Crawford, 1998; Lane and McWhirter, 1992; Stomfay-Stitz, 1994). Equally important, peer mediation supports student learning of problem solving, decision making, communication skills, critical thinking, and conflict resolution and self-discipline skills (Crary, 1992; Cutrona and Guerin, 1994; Hall, 1999; Johnson and Johnson, 1996; Jones, Kmitta, and Vegso, 1998; Lane and McWhirter, 1992). Where mediator teams are diverse and bias is addressed, students may also develop intercultural sensitivity (Day-Vines and others, 1996).

The vast majority (85 to 95 percent) of student conflicts that go to peer mediation are resolved, and nearly all of those agreements are kept (Massachusetts Association of Mediation Programs, 1995). The more

completely voluntary the referrals to mediation are (that is, where students have a real option to refuse such assistance without being punished), the more satisfied the disputants are with the process and the agreements reached (Jones, Kmitta, and Vegso, 1998).

Jones, Kmitta, and Vegso (1998), in the Comprehensive Peer Mediation Evaluation Project, examined programs in nine elementary schools, nine middle schools, and nine secondary schools in three U.S. cities, provided by three training organizations from which the evaluators were independent. They compared peer mediation–only programs—in which a cadre of students was trained to become mediators (comparable to CCR's program) for whole-school programs that trained a wider range of students and infused conflict resolution lessons in classroom curriculum—with comparison schools that had no special conflict resolution programs. They found that both cadre and whole-school peer mediation programs significantly benefited students and schools by improving social conflict behavior. The greatest impact of the programs was on the students who were trained directly and given opportunities to practice mediation, but the entire student population also benefited.

The Comprehensive Peer Mediation Evaluation Project has also suggested that peer mediation can improve school climate as measured by teacher and staff perceptions, although the impact on students' perceptions of the school climate was minimal. (As Cunningham and others, 1998, have shown, adults in school are often unaware of a large proportion of the violence and bullying experienced by their students.) Jones, Kmitta, and Vegso (1998) indicated that at the elementary school level, well-designed and implemented cadre programs could have as significant an effect on school climate as whole-school programs. This research improves our certainty that peer mediation programs can contribute to building safe and peaceful school environments. The present study of the CCR Elementary School Initiative (ESI) was designed to reinforce these results and to extend our qualitative understanding of the specific program interpretation and implementation practices and their consequences in urban elementary schools.

Research Context: The Cleveland Schools Center for Conflict Resolution

The Winning Against Violent Environments (WAVE) mediation program has been operating at the Martin Luther King Magnet School in the inner city of Cleveland since about 1983. In addition to mediating conflicts at their

own school, youths from the WAVE program have been leading conflict resolution and peer mediation training sessions in local and distant schools and communities since about 1988. Peer mediation has been included in the Cleveland Municipal School District (CMSD) Student Handbook as an accepted alternative to traditional discipline measures for handling certain kinds of conflict. Peer mediation is also available for student conflicts that do not involve disciplinary offenses—disagreements in the schoolyard, hallway, or classroom that have not escalated into serious disruptions or violence.

In fall 1995, WAVE's conflict resolution training program was recognized and institutionalized in its own school district, and it expanded into the CMSD Center for Conflict Resolution (CCR). The program's guiding light for the past eighteen years is a specially assigned social studies teacher, Carole Close. Close and her staff, generally young people who recently graduated from Cleveland schools, subsequently developed conflict resolution and training programs for a range of contexts and grade levels (Close and Lechman, 1997).

The CMSD CCR program uses the same basic model as most school-based peer mediation programs in North America. What is most unique about the CCR program is that, first, it emphasizes empowerment, leadership, and training by the urban youths themselves, and, second, its mediation services are becoming available district-wide at several grade levels. In 1996, the Cleveland Teachers Union signed a contract with the CMSD. That contract created a position called Conflict Management Program Adviser, an extra part-time position compensated by stipend, to be held by a certified staff member in each of the district's 120 schools, contingent upon the passage of a tax levy to support the schools. In January 1997, after the levy passed, the district funded the middle school and high school components of the CCR program and assigned the CCR the responsibility of training teams of peer mediators and advisers and of helping them to establish extracurricular conflict mediation programs in these schools.

The Cleveland Summit on Education, a local foundation associated with the Greater Cleveland Roundtable, filled a gap in the school district's program implementation by funding the CCR's initial effort to extend the mediation program into elementary schools. In 1997–98, the CCR began to train the first of these new elementary school conflict management advisers and their students and to establish new peer mediation programs in about a quarter of the district's elementary schools. As part of their support for the Elementary School Conflict Resolution Initiative, the Cleveland Summit on Education sponsored this evaluation research project.

Research Project: The Elementary School Conflict Resolution Initiative

The CMSD CCR had trained many teams of elementary school conflict mediators in Cleveland before. The new element in 1997 was the institutionalization (and remuneration) of designated Conflict Management Program Advisers on each school's staff. They would be responsible for implementing CCR-designed programs at each school. Another new element, resulting from a dovetailing State of Ohio program, was that CCR was able to offer staff development to these school-based advisers—two to three released days per year. Thus the ESI supported CCR to offer its standard training program, with the addition of slightly better institutional support for professional development and school-based program development than had been available in the past.

Program design. A team of twenty-five to thirty elementary students (called conflict managers in this program) from each of twenty-eight project schools received program development assistance and an intensive three-day peer mediation training, led by CCR staff members. The training staff members were diverse youths who had recently graduated from high school in Cleveland, and they were assisted by a few current high school student mediators. One or two adult advisers (sometimes teachers working in regular classrooms and sometimes special resource teachers without their own classrooms), and often one or two parent or community volunteers, were trained at the same time, along with their student mediator teams. Groups of advisers also received a day or two of additional professional development, led by Close and the CCR training staff, regarding implementation of mediation and conflict education across their schools. The CCR directed these advisers—in consultation with colleagues at their schools—to choose as mediator trainees children whose social leadership potential had been exhibited in negative or positive ways and who were representative of the school's entire racial, cultural, and gender populations and all grade three, four, and five classrooms. Thus the CCR program emphasized youth leadership in combination with an institutionalized adult support system.

These student conflict mediators, grades three through five, and their adult advisers were trained by the CCR's youth staff to develop conflict resolution and mediation skills. At the end of the three-day training and in follow-up visits, the CCR staff encouraged the conflict managers (mediators) and advisers to take the initiative in developing unique and appropriate conflict resolution programs in their own schools.

Research Method

The research project's purpose was to study what happened in the first twelve months after each peer mediation training program was initiated, and it was then enabled to develop autonomously in several different elementary schools in the same urban school district. Specifically, I gathered quantitative and qualitative information regarding the program's implementation process and its effectiveness in training twenty to thirty students and one or more adults in each of twenty-eight schools to provide ongoing support for conflict resolution program development at each school, thereby improving the school climate and the understandings of students regarding the management of conflict. The unit of analysis in the study was the school; individual children and teachers remain anonymous. The initial research funding was awarded by the Cleveland Summit on Education, a project of the Greater Cleveland Roundtable, in August 1997; the first set of trainings began that fall. Data collection was completed in May 1999.

Sample

A diverse set of twenty Cleveland public elementary schools was initially identified for this initiative. The CCR included schools of different sizes and different program emphases, schools in all regions of the city (reflecting Cleveland's ethnic, racial, and economic diversity). Because the program was implemented "from the top" (required by the school district administration) at a time of turbulent change in the Cleveland school system, most schools were delayed in appointing staff members to be conflict management program advisers (a prerequisite to CCR training). Thus the project selected mediators and advisers from the small number of schools that were actually available to begin the program in 1997–98. Nine of the schools in this original sample had received CCR training in the past two or three years. None had fully active programs at the time of the 1997–98 Initiative Project training, although six schools had a few student mediators and/or an adviser with some CCR experience left from previous trainings. Eleven of the initial twenty schools had received no CCR training before 1997. Thus the Elementary School Conflict Resolution Initiative study sample was balanced, including some schools whose staff members were uninterested in peer mediation and had sought no CCR services in the past, as well as other schools that had joined the initiative because of their interest derived from prior exposure to CCR's program.

Because of tight school schedules and a limited number of trainers, trainings and program start-up at each school took place at different times. Thus the main project schools were coded as Phase I (year one fall semester training, posttest at the end of the fall semester in January 1999) and Phase II (year one spring semester training, posttest at the end of spring semester in May 1999). These twenty schools each had approximately one full year to implement their programs; they were the main focus of this study. For comparison purposes, a group of fourteen additional schools were given pretests in the fall of year two and posttests in May of the same year. Eight Phase III new (second-round) project schools received CCR training in the fall. Six Phase IV no-project schools, originally intended to serve as a comparison group, did not receive CCR training until after the May 1999 posttest. However, several of these schools misunderstood instructions and did begin conflict resolution education programming before the posttest; thus, this comparison group was dropped from the study.

Qualitative Evidence

Qualitative data assessed the processes, roles, character, and effectiveness of program implementation by comparing schools' climates, activities, student roles, and skills early and late in their first year of implementing the peer mediation program and by analyzing between-school differences. Observations and interviews involved adults and selected children, both directly engaged and relatively unengaged with the peer mediation program, at all twenty-eight schools (Phases I, II, and III). For more specific information on methodology, see Bickmore (2000).

Quantitative Evidence

Quantitative data focused primarily on the research question regarding program effectiveness. The major quantitative measure was an anonymous survey of grade three, four, and five students' understandings and attitudes toward conflict, which was administered preprogram and after a year of program implementation. The results of this survey were aggregated and analyzed by program phase (groups of schools), by school, by grade level, and (for some schools) by gender. The other quantitative information was routinely collected by the school board. It compared the district's average elementary school attendance rates, disciplinary suspension rates, and pass rates on grade four achievement tests with those of the phase I, II, and III project schools.

The paper-and-pencil survey, Student Attitudes About Conflict (SAAC), is an adapted version of a survey created by the New Mexico Center for Dispute Resolution (Jenkins and Smith, 1995; see also Bickmore, 2000, for full details on measurement). It was administered twice (as pretest and posttest) by teachers in their own classrooms, to approximately four thousand students each time, grades three through five, at each of thirty-four schools (twenty main project schools, eight second-round new project schools, and six no-project comparison schools). Overall program effectiveness was assessed by comparing the amounts average; SAAC scores changed after each school had implemented the CCR program for a year.

The adapted SAAC survey has four subscales—groupings of questions that together describe particular aspects of students' understandings and attitudes toward conflict and their potential for success in school. Each of these themes has been identified in previous research as a potential outcome of peer mediation programming. The four thematic subscales are

- CR—Understanding of conflict resolution and problem solving indicates understanding of the conflict and the inclination to handle it nonviolently.
- PR—Peer relationships and the concept of one's own social skills indicates a student's self-assessment of his or her capacity to handle conflict and get along with other people.
- SA—School attachment, comfort, and commitment in school indicates a student's attitude toward attending and participating in school.
- SC—Perception of school climate and safety at school indicates a student's assessment of the level of safety in his or her school environment.

Additional quantitative evidence was derived from routinely collected public records of the CMSD. Because prior research indicates that peer mediation can improve students' attitudes toward school, this research assessed average attendance rates at project schools. Because prior research indicates that peer mediation can help students improve academically relevant skills, this research assessed Ohio Proficiency Test pass rates for grade four in the two subjects most closely related to peer mediation—reading and citizenship. Because prior research associates peer mediation

with reducing violence, this research assessed suspension rates (in elementary school contexts, suspensions are punishment for violent behavior). For each of these indicators, CCR project schools (in phases according to the training date) were compared with the CMSD's elementary school averages in 1996–97 (immediately preceding implementation of the ESI) and in 1998–99 (the end of year two of the initiative).

Results: Analysis of Qualitative Evidence

The qualitative data were rich in information about best practices and areas of needed improvement.

Training, Program Interpretation and Scope, Roles of Participants, and Sustainability

Interviews with direct participants in the CCR program and with other members of each school community, as well as on-site observations, yielded information regarding strengths, weaknesses, and innovative approaches to CCR program implementation at the school level. This section reports on triangulated cross-case analysis to highlight general results and implementation themes across the twenty-eight schools in the CCR ESI.

Clearly there remain significant challenges in reliably developing and institutionalizing peer mediation programs in elementary schools such as those in Cleveland. Half to two-thirds of the twenty original project schools demonstrated significant program development between years one and two. Others did well only in year two, after accomplishing essentially no program development in the project's first year. Some developed well in year one but did not sustain strong programs in year two. CCR, at its current level of staffing, was extremely dependent on the commitment and capacity of each school-based conflict management program adviser and administrator to implement and develop the peer mediation programs and to influence other adults and students in their schools to support student-centered conflict resolution activity.

Training and Follow-Up by Youth and Adult Leaders: CCR Staff Services

More than seven hundred elementary students and more than forty adults (program advisers and volunteers) were trained in this initiative at the twenty-eight Phase I, II, and III schools. In addition to leading the three-day

trainings of peer mediation teams at each school, the young CCR ESI training staff (recent high school graduates)

- Carried out at least one follow-up visit to each school and adviser
- Made presentations at school staff meetings
- Led workshops for parent groups at some project schools
- Assisted CCR's program coordinator, Carole Close, in conducting professional development for all conflict management program advisers as a group
- Assisted Close in identifying and disseminating materials for schools to use to facilitate integrating conflict resolution throughout classroom work and school environments

Written evaluations of individual student mediators' skills by CCR staff members at the end of each three-day training, as well as oral descriptions by school-based program advisers and classroom teachers, indicate that nearly all the students CCR trained developed fair or good proficiency in the steps and underlying conflict management skills of peer mediation.

Many of the student mediators who were CCR trained were strong enough to, in turn, influence the understandings and openness of many of their peers to nonviolent conflict management. In contrast, in the five or six schools where on-site research visits revealed that adult advisers had trained some additional mediators themselves (contrary to CCR guidelines), those new mediators' skills and enthusiasm were distinctly uneven and, on average, considerably weaker than those of the students trained by the CCR staff. Beyond their evident skill in mediation, CCR trainers were unusually effective role models because they (like their young trainees) were diverse young people who grew up and studied in the CMSD.

Clearly the young mediators and their advisers had been exposed over many years, in school and out, to society's prevailing models of conflict management, including arbitration (judging), advising, and punishing. Although CCR promoted an alternate form of dispute resolution—one in which the third-party helper wields far less substantive authority or punitive power than a judge, principal, or counselor would, at times their training was not strong enough to clarify the differences between peer mediation and these more directive approaches to conflict. An important instance of this misunderstanding was that in four or five of the original twenty project schools, the conflict management program adviser added a

ground rule (contrary to CCR guidelines) that participants should "tell the truth," and sometimes he or she even involved additional people in mediation sessions as "witnesses." This transformed mediation from a participant-centered effort emphasizing present and future problem solving to a backward-looking effort emphasizing placement of blame.

The most frequently mentioned additional request by school staffs was that CCR update and extend the information they disseminated regarding linkages between conflict resolution and academic learning. Although this research shows that peer mediation is positively associated with academic achievement (see the section on quantitative analysis), the strategies for enhancing that connection—effectively using conflict resolution and peer mediation to strengthen on-task behavior and academic skill building and effectively using academic learning activities to strengthen conflict resolution—need to be further explained and practiced in professional development initiatives. This seems to be one conflict resolution education task that can best be handled by professional certified teachers rather than by youth trainers.

School-Site Program Development and Institutionalization: Administrator and Staff Roles

Through the efforts of the CCR staff, student mediators, and staff members in each school, the CCR ESI met its goal of influencing a significant proportion of the grade three through five student population in most project schools. In about six of the twenty main project schools, a robust majority of grade three through five students, when observed and orally assessed in their classrooms, showed significant familiarity with the purpose and process of peer mediation. In an additional eight or nine schools, a sizeable minority of the grade three through five student population were well informed about mediation. In five schools, significant proportions of grade one and two students, in addition to grades three through five, were well informed about mediation. Clearly these programs had developed considerably beyond the original small cadres of mediators that were directly trained by CCR.

In fifteen of twenty schools, between 5 and 50 percent of the grade three through five students reported having received direct assistance from peer mediators in resolving interpersonal conflicts during the past year. In those fifteen schools, by spring 1999, between one and six or more peer mediation sessions per week were being conducted. About half of the twenty programs showed quite extensive program growth and development between

spring 1998 (project year one) and spring 1999 (project year two), and about four others showed slower, but evident, program development. Schools that were implementing CCR programs for the first time showed more positive initial growth during the assessed year than schools that had already received some CCR training services before this project's pretests. This indicates that more than one year is generally needed for full program implementation.

The CCR program was admired by students: over 70 percent of the grade three through five students who were not already conflict managers (from 50 percent to over 90 percent at various project schools) indicated on SAAC surveys that they would like to be conflict managers. In the classrooms visited during on-site observations, the percentages of students who indicated they wanted to be conflict managers were similarly high. Although a less representative sample, these on-site results substantiate the reliability of these data, because I asked the question immediately after reviewing with the class what conflict managers did.

CCR programs at all schools negotiated the multiple pressures and competing priorities that face urban schools today. Principals in Cleveland during the project period carried a great deal of this pressure, partly due to the ways they were accountable for their students' Ohio Proficiency Test scores. One rough indicator of this pressure's effect on students from relating qualitative to quantitative data is the SAAC "school attachment" result for the students in grades four and five, for whom the proficiency test was a major element of either the first or second project year. Where principals and school staffs supported peer mediation activity, even during the achievement test preparation period, their schools generally showed more improvement in grade four and five students' school attachment and program development than those who allowed test preparation to interfere with student-centered extracurricular learning activity, such as peer mediation.

Time-tabling regular meetings was the single most tangible and effective way for schools to show their commitment and facilitate the success of peer mediation. Programs that met during school, every week, during a designated period were considerably more successful than programs that met after school or that met less often than every other week. In particular, student mediators who were not already successful in other aspects of school (including discipline matters), and those whose English-language communication skills were weak, truly needed the consistent encouragement, support, and practice of regular conflict management

team meetings. When programs did not meet frequently, these students in particular tended to drop out, to be kicked out for misbehavior, or to become inactive as peer mediators. When mediation teams thereby became less heterogeneous and less representative of the student body, programs tended to stagnate or to not influence the skills and behavior of their school populations. When principals and union representatives (who set timetables) allocated even one regular period per week, it made a world of difference.

Relating mediation to discipline policy was also crucial. School-based initiatives were more successful when they developed and communicated to all staff members a clear, noncoercive policy regarding the prerequisites, consequences, and procedures for using peer mediation, as distinct from more top-down discipline procedures. Program effects were strengthened when teachers and administrators modeled respect for the program by referring students to it (that is, suggesting that they use peer mediation to address their problems). At the same time, the power of the mediation alternative rests on its voluntary, confidential, and nonpunitive nature. Situations involving serious physical violence would typically not be mediated by students in any case, especially at the elementary level. In schools that treated students' minor interpersonal conflicts as punishable offenses and presented them with the loaded "choice" to use mediation or be punished, the voluntary nature of peer mediation was undercut and its effectiveness suffered. For example, a few schools that discouraged or punished students for using mediation "too much" were implicitly teaching those students not to seek help in taking responsibility to nonviolently resolve their problems and was preventing them from practicing skills that they evidently needed. Where conflict management program advisers served on school discipline or safety committees, or in some way were able to regularly communicate with colleagues about appropriate conflicts to refer to mediation (distinguishing this from punishment), their schools showed more successful results from the CCR program.

Program Development and Institutionalization: Program Advisers' Roles

Conflict Management Program Advisers in each school had three main responsibilities:

1. Meeting regularly with conflict managers for skill practice, debriefing, and analysis of their mediation challenges and doing group planning regarding conflict management program development

2. Facilitating the duty schedules and referral process for getting mediators connected to conflict situations, including assigning appropriate partners, giving all mediators equitable opportunities to offer their services, and following up where needed with mediators and/or clients
3. Leading conflict management program development, including disseminating information, resources, and motivation to all members of the school, by initiating formal and informal learning activities and by facilitating peer mediator decision making and coleadership of the program

To make peer mediation a viable alternative in the school, advisers had to conduct program-related activities during their already-busy school day—when students, staff members, and others were present. Advisers were also essential links to the professional teaching staff, clarifying and enhancing links between conflict mediation and academic work. Because the role of Conflict Management Program Adviser was new in the Cleveland District in year one of the Elementary School Conflict Resolution Initiative (1997–98), many administrators had little prior knowledge that would have helped them to choose good advisers for the CCR program. Thus it is remarkable that the majority of advisers did fairly well in implementing peer mediation programs in their schools. Because they were professional educators working in their own schools, these advisers were well suited to interpret and adapt peer mediation to fit the particular populations, program priorities, schedules, and staffing strengths of their schools.

Program Interpretation: Student Mediators' Roles, Participation, and Diversity

Some schools were far more successful than others in sustaining the involvement of diverse student mediators, especially those originally seen as "negative leaders" and those whose first language was not English. They were active and confident members of the program. Where diverse mediator teams were sustained, the most important factor was the commitment and capacity of the program advisers to coach, support, and encourage the whole range of students. Advisers' and other staff members' ongoing support for all mediators' learning and second chances was somewhat inadequate in many schools. In programs with regular and frequent conflict manager meetings, better diversity was maintained and thus programs were better able to influence their schools. Where student mediators had input

into policy regarding the consequences of their own behavior, programs were better able to avoid the restriction of mediation to a narrow "good student" population.

In many of the same schools that emphasized the monitor or model roles for student mediators, it was common for quite a large number of mediators to lose interest in or be kicked out of the program. Such programs no longer had sufficient numbers of student mediators representing all of the school's population subgroups. Because boys are generally somewhat more likely to get into physical fights (and to get punished for their conflict behavior), several of the schools' conflict manager groups have become predominately female—sometimes disproportionately white. This narrowing in mediator team diversity communicated to student populations that mediation was not necessarily for everybody, and it caused some people to avoid or not try mediation. In schools where staff members had developed clear policies for handling problems and supporting diverse mediators, more—and more varied—student mediators remained active and effective.

In virtually every case where they were given support, respect, and opportunities to show what they could do, the grade three through five student mediators in this project met and exceeded the expectations of those around them. The enthusiastic testimonials from formerly skeptical teachers, administrators, peers, and parents indicate that young children can indeed help build peaceful environments. The longer and more widely a program developed in a school, the more enthusiasm these young peacemakers generated. The positive school effects shown in this study result from the fact that these young people were able to influence a great number of their peers toward nonviolent inclinations and relationships. In some schools, conflict manager activity involved primarily mediation per se. In others, conflict managers applied their skills in a wider range of ways—for example, making presentations to peers and parents regarding mediation and conflict. The only serious lament I heard about the program from student mediators in any of the twenty-eight CCR project schools occurred where they were not given the opportunity to be sufficiently active, to show what they could do to make their schools more safe and peaceful.

Quantitative Analysis

Quantitative data focused primarily on the results of the CCR's program effectiveness.

Student Attitudes About Conflict Survey Results

Overall. Prepost comparisons of SAAC survey results show that the CCR's elementary conflict management program had, on average, small but significant positive results, even after only one year of implementation. Results are reported here for the fourteen main project schools that implemented the program and provided valid data (Bickmore, 2000, includes full information on all project schools). Average posttest scores in schools that implemented the program were higher than pretest scores on the survey taken as a whole and on three of the four thematic subscales (see Table 1). The overall incremental improvement between the pretest and the posttest averaged across all implemented Phase I and II schools was significant statistically ('T-test' $p < 0.01$).

The CCR program is associated with improvements in students' understanding and inclination toward nonviolent conflict resolution (the CR scale), and with improvements in students' assessment of their own capacity to handle conflicts in interactions with peers (the PR scale). This indicates that, on average, the understandings and feelings of efficacy to handle conflict increased in the grades three through five student populations of CCR project schools. Students' attitudes toward attending and participating in school (the SA scale) also improved significantly. This indicates that the existence of CCR peer mediation programs helps to improve the average student's comfort with engaging in school activities. These results reflect school-level improvements in students' capacities and willingness to handle effectively both interpersonal relationships and school activities.

One year of program implementation was not sufficient to show a highly significant improvement in school climate as perceived by the

Table 1. Implementation for Phase 1 and 2 Main Project Schools: The Mean Prepost Difference by Grade and Subscale

(N = 14)	*All Grades*	*Grade 3*	*Grade 4*	*Grade 5*	*Conflict Managers*
School climate	0.06*	0.04	0.05	0.14*	0.08
Peer relations	0.08***	0.07	0.07*	0.12**	0.06
Conflict resolution	0.10***	0.17***	0.03	0.13**	0.14**
School attachment	0.11***	0.19***	0.10**	0.09*	0.11**
All scales	0.09***	0.13***	0.06*	0.12**	0.10**

*$p \leq 0.10$.
**$p \leq 0.05$.
***$p \leq 0.01$.

average student (the SC scale). Students' average perception of their school climate was relatively negative before implementation of the CCR project; it was more varied (higher standard deviation), but, on average, it was little better after a year of this project. The incidence of name calling reported by many students was particularly high in most schools. The schools with better overall program implementation (as assessed by qualitative measures) did achieve generally better school climate results. This suggests that when CCR peer mediation programs achieve full implementation (normally after about three years), school climates may indeed be improved.

The CCR mediation program improves the average student's school experience in grades three through five as well as their consequent learning to handle conflict and human relationships, to a limited but significant degree. As would be expected when averaging survey scores from thousands of diverse children early in the program implementation process, the overall program increases from pretest to posttest are not large (approximately one-tenth of one step on the five-point survey scale). Also, the degree of variation among students' results is sometimes fairly high (standard deviations of 0.34–0.95 across schools, overall and by grade level). This indicates that the CCR program was not equally effective for all children (nor for all grades or all schools). "Cadre" mediation programs, especially in early stages of program development when they are only partially implemented, are unlikely to serve all students equally. Variation among students, as well as among schools (standard deviation), was highest in the school climate subscale. This means that significant numbers of students continued to experience their schools as being somewhat unsafe. To sufficiently change the behavior of enough students—to make even the least popular students feel completely safe in school—would require a longer and more comprehensive program than the one-year peer mediation program studied here. Nonetheless, the average SAAC score increases—across the large number of diverse students and schools assessed—show that the CCR ESI positively affected most students in most schools.

Conflict managers (peer mediators). Seen less consistently than had been shown in previous research, conflict managers sometimes had stronger results than their schools as a whole. However, the substantial between-school differences in peer mediator results exceeded the between-group differences across the various program schools. In schools whose conflict managers were relatively inactive (according to qualitative data), conflict managers had lower SAAC score improvements than their peers. Because of their special responsibilities as mediators, conflict managers became exceptionally aware

of peer conflict in their schools and thus tended to show a particularly strong "implementation dip" in conflict awareness. In more active and inclusive programs, peer mediators received more opportunity to learn and internalize conflict resolution skills through training, and then, by advocating them among peers, they achieved stronger results.

Grade levels. The average results for students in grades three through five are much stronger than they are for students in grade four. This is because many students in grade four were denied opportunities to participate fully in this program by teachers or principals, on the assumption that such activity would be detrimental to Ohio Proficiency Test results (an incorrect assumption). In the schools where grade four students were allowed to participate as actively as other students, their results were comparable to those of students in other grades. The between-grade differences varied widely from school to school, depending on which students were given the most opportunities to participate in conflict resolution activity. This confirms that children as young as those in grade three can benefit from peer mediation if given well-supported opportunities to participate. Grade three students (at the time of the posttest in program year two) would not have received direct training from the CCR staff. Their strong results, even more than those of students in other grades, are the result of program implementation beyond the original peer mediator cadres in their schools.

Between-school (program implementation) differences. The data for the eighteen project schools analyzed quantitatively show tremendous between-school differences in program results (Bickmore, 2000). These quantitative results are reinforced and explained by qualitative data from all twenty-eight schools, which indicates that the individual school's interpretation and implementation of the peer mediation program is at least as important as the program model itself in determining program effectiveness.

Quantitative Measures Using Cleveland Municipal School District Data: Attendance, Suspension, and Academic Achievement

Information collected by the CMSD also provides support for the effectiveness of the CCR elementary conflict management program. Table 2 presents comparisons between the academic year 1996–97 (spring preceding project implementation) and the academic year 1998–99 (the final spring of the evaluation project).

Students' increased feelings of attachment to school (demonstrated by SAAC survey results) were not sufficient to increase the average attendance

Table 2. Change of Percentage in Information Collected by the District from 1996–97 Through 1998–99

Program Averages	*Attendance Rate*	*Reading Pass Rate*	*Citizenship Pass Rate*	*#Suspensions*
Fall training (early phase I)	−0.1	+26.1*	+34.3*	−36.1*
Spring training (late phase I and phase II)	−0.1	+54.4**	+63.0***	−13.2
Phase III	−0.9	+41.7**	+79.9***	+34.7
Implemented Phase I and II (N = 14)	−0.1	+37.2**	+45.4***	−24.9
Whole district (elem.)	+2.1	+22.8	+38.1	+2.1

*$p \leq 0.10$.
**$p \leq 0.05$.
***$p \leq 0.01$.

rates at most CCR project schools. Too many other variables influence students' school attendance, especially at the elementary level.

Suspension rates were considerably reduced in CCR project schools, compared with the average district elementary school, during the project period. Whereas Cleveland's overall average elementary school suspension rate (a consequence of violent behavior) went *up* by about 2 percent, suspension rates in the main CCR project schools (implemented Phase I and II) went *down* by an average of 25 percent (improving most in fall-trained schools). The between-school variation was high enough to prevent statistical significance on this variable, except for slightly in the case of CCR schools trained in the fall, partly because CCR schools are also included in the district averages. Peer mediation provides a meaningful alternative to suspension by resolving problems—rather than by simply punishing—and by helping children learn alternative ways to handle their conflicts.

Pass rates on the grade four Ohio Proficiency Tests of citizenship and reading increased in CCR project schools considerably more than the district average. Conflict resolution education and practice is a good way to improve communication and language skills (reflected in the reading test) as well as understandings of problem solving and community processes (reflected in the citizenship test). This supports the claim that time spent outside regular class for extracurricular activities, such as CCR's peer mediation program, can increase students' academically relevant skills and their

comfort in school and help them resolve personal problems so that they can focus on learning (see also Williams, 1992).

Study Limitations and Future Research Needed

A strength of this study is the triangulated data gathered from youth trainers from the same community as project schools and from large numbers of diverse students, diverse adult stakeholders, and diverse schools (all trained with the same basic program model), throughout a year per school. However, quantitative data would have been much more reliable if there were valid data from a no-program comparison group and if adequate funding allowed direct, controlled administration of surveys (rather than delegating survey responsibilities to program advisers in each school, which caused a lot of incorrectly gathered data to be wasted). Thus, while the robust sample size and multiphase design strengthen the SAAC evidence, these results must be treated with caution, as they are partly artifacts of context and timing. Also, one year is clearly not sufficient for full implementation (including diffusion of effects throughout a school) of peer mediation programs. Future research should examine program implementation in depth over the several years required for full program development.

Conclusions and Recommendations

What (and how much) effect does the CCR ESI peer mediation program have on the school environment as a whole, especially on the grade three through five student population, in a range of different school settings? This research points clearly toward the effectiveness of peer mediation programming in elementary schools and specifically toward the effective work of the CMSD CCR in initiating, training, and developing such programs in diverse Cleveland elementary schools. In spite of the relatively short duration of the study period, limited funding, and the getting started glitches of the new adviser roles in the schools, the ESI was successful. Many of the areas for improvement that were highlighted by the research can be solved with strengthened funding and a sustained period of reflective practice.

What factors and stakeholders facilitate or impede effective implementation of an elementary school peer mediation program in this northern U.S. inner-city context? What most needs improvement is the development and maintenance of sustainable programs at the school level. This will require some improvement in CCR professional development and resource materials for

program development, including dissemination of information to administrators, teacher's union representatives, and staffs (including Conflict Management Program Advisers) at each school. Resources that enhance dovetailing between conflict resolution and academic learning goals are particularly essential. The clear consensus among staff members and students at virtually all project schools was that funding was needed to allow for more extensive, equitably distributed, thorough, and frequent follow-up support by the CCR staff at each school site. In addition, district- and school-level administrators and union leaders can do a great deal to institutionalize peer mediation as a regular component of the academic curriculum and the whole school environment by making space for the work of conflict managers in the timetable, in meetings with students, in staff meetings, in professional development time, and in the regular activity of classrooms.

At a minimum, one period per week during school should be scheduled for peer mediator meetings with their adviser at a regular time when all can attend. Conflict resolution programming is as important as any other special class or learning activity, and allocating time is the most concrete and useful demonstration of a school administration and staff's commitment to the success of diverse students in the peer mediation program. Wherever possible, an additional period or more per week should be allocated for Conflict Management Program Advisers to work on program development and planning with the staff and with parent/neighborhood communities. It is appropriate for a large part of an extra-stipend job to be carried out in a staff member's "own" time, but sufficient funding is necessary to make it possible for the adviser to do some work during school, when colleagues and students are present.

Leadership and information dissemination are necessary—in particular, to clarify the differences and intersections between the peer mediation alternative and the regular discipline patterns and program priorities of the school. Peer mediation cannot work well if it is entwined in a highly restrictive or coercive environment: students' relative autonomy, voluntary participation, and confidentiality must be ensured for such programs to thrive. Leadership is also necessary to ensure equitable participation in the peer mediation program. Diverse teams of conflict managers, who can improve the school experiences of whole school populations, are not sustainable without clear, conscious, and consistent support by the CCR staff in follow-up work, by Conflict Management Program Advisers, and by school administrators and staffs. No adviser can do this alone; he or she may need

coadvisers, a Conflict Management Committee, or some other clear tie into the staff committee and work structure of the school.

In summary, the results of this research affirm that cadre-type peer mediation programs can improve elementary students' capacity and inclination to handle conflict nonviolently, improve their relationships with their peers, and increase their attachment to the school. Furthermore, such a program can reduce suspensions from school for violent activity and can increase achievement in reading and citizenship. The CCR's training and program model is sound and workable and its training and program advisory staff members have done good work with limited funding. At the same time, good training is not enough. School-based program development and support to build programs that can grow and last over time will require strengthened commitment and clarity of purpose at the CCR, at each school, and across the CMSD.

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