

**Mediator Mentors: Improving School Climate—
Nurturing Student Disposition**

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ABSTRACT

Education is in the midst of an essentialist movement, with academic achievement and accountability as primary foci. All empirical and anecdotal evidence tells us that the pursuit of academic achievement requires learning environments which foster civility, safety and connectedness. "Mediator Mentors," a collaborative research and service project was begun by California State University Fresno faculty and the staff of an elementary school (K-8) in the Central San Joaquin Valley. The purpose of the research was to assess conflict resolution program effects on students (N= 300) and school climate. The purpose of the project was to develop a conflict resolution program that would "fit into the life of the school" and enhance school climate

Cross-age mentoring is an important component of this collaborative project. University students preparing for roles in helping professions benefit from mediation training and practice. Many of the project mentors are becoming teachers; the rest--counselors and social workers. Elementary students benefit from interaction with university students who are young enough to vividly remember their own, recent public school experience and who themselves care about developing empathy, practicing respectful communication, and cooperation. Assessed were student cognitive and affective perspective taking (mediators and non). Additionally, student perceptions of school safety were explored. This article reports and discusses results after one year of CRE program implementation.

BACKGROUND

Introduction

Education is in the midst of an essentialist movement, with academic achievement and accountability our primary foci. All empirical and anecdotal evidence tells us that the pursuit of academic achievement requires learning environments which foster civility, safety and connectedness. “Mediator Mentors,” a collaborative research and service project was begun by California State University Fresno faculty and the staff of Herndon-Barstow Elementary School (K-8) in the Central San Joaquin Valley in July of 2000. The purpose of the project and research was to develop a conflict resolution program that “fit in with the life of the school” and evaluate program effects on students (N= 300) and school climate. Herndon-Barstow had been identified as an “underperforming school” through the governor’s Immediate Intervention Program (I.I.U.S.P) grant. Because of the school’s history as an “overflow” enrollment site for the district, students reportedly had little identification with Herndon-Barstow and leadership noted a lack of cohesive spirit among students enrolled in the four separate attendance tracks (Herndon-Barstow is a year-round school). Focus areas and goals were designated. One of these was school climate.

Following needs assessment in August 2000, administration, a team of seven Herndon-Barstow teachers and two CSUF professors committed themselves to peer mediation program development and evaluation. Initial needs assessment revealed that 90% of the staff felt that a conflict management program would unite the school around a model in which listening to and appreciating divergent perspectives was inherent. Additionally, the I.I.U.S.P. process indicated that “feelings of connectedness, and

perceptions of safety” required improvement.

Cross-age mentoring is an essential part of the project. University student interns from California State University’s Peace and Conflict Studies certificate program elected to spend 150 hours a semester mentoring Herndon-Barstow mediators.

Additionally, after similar training, teacher credential candidates also elected to mentor elementary conflict managers. These “Mediator Mentors” learn mediation skills in their college experience, and with that background, work with elementary students trained as peer mediators on a weekly basis. University Faculty were frequently on campus to encourage mediators of all ages.

Mediator Mentors represents an ongoing collaboration between university and elementary school. In its third year, the program is thriving and over 150 students have been trained in communication, conflict resolution, and facilitation skills. The peer mediation program now has a regular influx of university students each semester. It is notable that over half of those who mentor plan to become teachers-- the other-- counselors and social workers. The program continues to evolve with the following components developed thus far:

- Assessment protocol (Davis Scales, conflict survey, standardized test scores and school climate surveys)
- inservice of classified and certified staff (teachers, instructional assistants, playground personnel and administrators)
- nomination and training of cadres (cross tracks) of peer mediators (grades four through eight)
- ongoing development for identified mediators in weekly “skill spots”
- school-wide classroom instruction by peer mediators in conflict resolution strategies
- cross-age mentoring (“Mediator Mentor” CSUF Professors, “Mediator Mentor” Herndon-Barstow Teachers, University student “Mediator Mentors,” and Herndon-Barstow Intermediate Grade Peer Mediators).
- Intermediate student mentoring of primary student conflict resolution skills using literature sharing and discussion

- Local Partnership Schools Identified (Kastner Intermediate “*Conflict Managers*” and Central High School “*Peer Connectors*”)
- School Climate *Town Hall* (format for school climate evaluation)
- Reward field trips for student mediators and university mentors.
- School policy developed for mediator selection and maintenance in the program
- New student peer mediator welcome protocol

After one academic year of program development (10 month assessment interval), the following predictions have been analyzed. The data and subsequent findings associated with each anticipated result will be discussed here in detail.

- Student cognitive and affective (empathy) perspective-taking will increase in program participants; with peer mediators scoring higher on developmental assessment measures than nonmediators.
- There will be a relationship among peer mediation program implementation, standardized score increase (especially language arts), and perception of school climate for program participants.

CRE Recommendations

Those of us who work in Conflict Resolution Education are now assisted by guidelines and goals that are improving the quality of our implementation and assessment efforts. The study described in this article can best be described as serving goals 1, 2, 4 and 5. The school’s aim was to 1) create a safe learning environment, 2) a constructive learning environment, 4) enhance student social and emotional development, 5) and create a constructive conflict community (Prichard in Jones, S. and Kmitta, D., 2000). It is interesting to note, that goals one and two were those articulated by the elementary school leadership in engaging the community partner. Goals four and five came to the project by way of the university collaborator. The social-emotional development of students was this researcher’s first interest. True collaboration often yields a richer, more

meaningful product than does a unilateral or self-study of one's own program. All parties in this collaboration were interested in the co-construction of knowledge (Vygotsky, 1987). And further, we were satisfied that through our partnership we addressed more of the CRE goals than we might have done alone.

Relevant Literature

In the American Medical Association's (1996) longitudinal study on protecting our children from harm, "connectedness with school" was found to be a factor protective against a variety of risk behaviors (violence, being one). *Mediator Mentors* provides an ideal structure for "connectedness." ALL students can learn to mediate. In fact, documented cases cite the bully-to-leader transformation as a positive outcome (Maxwell, 1989). "Connectedness with school" can, in many cases, be translated to "perceived peer acceptance," Garbarino, J. (1999). Students who have been helped through a dispute by a peer report an appreciation for the helper and the process (Johnson, & Johnson, 1999).

The developmental importance of the "tool skills" of mediation cannot be underestimated. Although young children do learn communication and conflict resolution behaviors from modeling, explicit teaching and guided opportunities for practice increase the probability of adaptive dispositional tendencies. Mediating requires the exercise of communication and self-regulatory skills that can contribute to resiliency. Characteristics of resilient children are behaviors marked by empathy, effective communication, flexibility and problem-solving (Marvel, Moreda & Cook, 1993). Resilient children are those who succeed in spite of the many factors that put them at risk academically and socially—such as low socioeconomic status and transiency.

The use of cross-age mentors has been thoroughly researched and is considered an effective structure supportive of interpersonal learning (Johnson & Johnson, 1999; Lieberman, 1989; McLaughlin, Smith, Hazouri & Peyser, 1992). Lev Vygotsky's (1987) notion of learning in the context of interaction with the more capable peer is a sound theoretical basis for mentoring programs. In a recent research project developed by the primary author of this document, college-age mentors assisted elementary-age student mediators. One college mentor remarked, "The kids seem to feel the importance of their mediation job, because we are there watching and helping. As they get to know us, they ask us about college and our own goals for the future. We know they are influenced by our presence" (Sargent, 2001). Another college mentor observed, "The fact that I'm learning mediation and they are too, makes the learning all that more valuable in the kids eyes" (Trejo, 2000).

Research on effective models tells us that for the learner to accept the model's message, there must be some degree of perceived similarity, esteem, competence and novelty. The university students interested in helping professions satisfy these criteria for the younger mediators.

Previous research on school-based mediation programs indicates that training only a small number of mediators is not preventative of violence or favorable to optimum developmental outcomes (Johnson & Johnson, 1998). However, there is evidence indicating that as the number of trained mediators grows in proportion to the student population, school climate effects are more likely (Lane-Garon, 1998).

The *Mediator Mentors* project incorporates developmental considerations, school climate concerns, and influences of mentoring. Mediation's contribution to violence

prevention lies in its reduction of the predictors of violence (poor communication, impulsivity, egocentrism, perceived isolation). Mediation's contribution to adaptive child development lies in its provision of a model for considering another's diverging point of view, accurately inferencing another's feelings, cooperatively resolving a shared problem and experiencing satisfaction with a mutually designed solution. Being a mediator mentor means that a young person has mastered (at his/her current developmental level) a set of communication skills, can use these in real and sometimes emotionally charged situations, and can guide others in their development of these same skills.

Peer Mediation has often been included in violence prevention approaches. It certainly has earned its place in that literature. However, it must be understood that its contribution to violence prevention is similar to that of diversity, leadership, peer counseling, character education, and other programs that endeavor to promote intrapersonal development, interpersonal understanding, and impulse control. The likelihood of violence is reduced in environments where students are aware and appreciative of divergent perspectives and ways of being in the world. However, violence sometimes erupts regardless of the collective social skill development in a student population. Highly publicized incidents of school violence in recent history is illustrative of this. Peer mediation was one of the programs featured at Safe Schools Night in the school district described in this study. It was but one of many. This illustrates the proper place of peer mediation in the scope of violence prevention.

There are many components of successful, school-based violence prevention. The better programs (like L. Stevahn and colleagues' kindergarten project, 2000) consider

child development and “fit” into the curriculum and life of the school. The Herndon-Barstow project, *Mediator Mentors*, fits easily into recess periods when conflicts are resolved on the playground as they occur. Also, intermediate peer mediators facilitate classroom instruction in the form of cross-age tutoring. When peer mediators teach a “lesson” in primary grades, they select a literature book in advance that is appropriate to their younger audience. When they visit the primary class with a partner, they read the story and discuss literature-based themes of conflict and resolution with the younger children. Lessons are short and fit into the school focus on addressing language arts and reading standards. In fact, school staff working with the mediation program have circulated the following list of standards to assist primary teachers in documenting objectives addressed by visiting mediators in their classes.

California Standards Addressed Peer Mediator Facilitated Problem-Solving Lessons
in Primary Grades

K.0 Listening & Speaking Strategies

- 1.1 understand and follow one and two step oral directions
- 1.2 share information and ideas, speaking audibly in complete sentences

- 1.0
 - 1.1 listen attentively
 - 1.2 ask questions for clarification and understanding
 - 1.3 give, restate, and follow simple directions
 - 1.4 stay on topic when speaking
 - 1.5 use descriptive words when speaking about people, places, things, events

2.0 Speaking Applications

- 2.1 recount experiences or present stories that move through logical sequence of events (retell an important life event or personal experience using sequencing and provide descriptions with careful attention to sensory detail)

3.0 Listening & Speaking

- 1.1 retell, paraphrase, and explain what has been said by a speaker
- 1.2 connect and relate prior experiences, insights and ideas to speaker's
- 1.3 respond to questions with appropriate elaboration
- 1.7 use clear and specific vocabulary to establish tone

Figure 1. Primary Grade California Language Arts Standards addressed by Peer Mediation Process

Peer Mediation is primarily a conflict management model in which students are trained in the communication and dispute resolution skills necessary to prevent altercations from escalating. These skills are also the “tool skills” of tolerance and appreciation of divergent views. Peer mediators are trained and subsequently offer service to their school community (usually on the playground) by facilitating the conflict resolution of their peers. Often, the peer mediation model is a support to classroom management. This is most effective when classroom teachers teach the process to all students and provide guided opportunities for practice. Over twenty years of

documentation exists around peer mediation and new conflict resolution and problem-solving programs evolve in schools across the nation every year. When combined with classroom instruction, teacher and staff inservice, as well as parent training, the mediation model sets a norm of “Conflict is OK. Violence is not.” In schools where mediation is implemented (as accompaniment to, though separate from a discipline plan) school community members value listening and respect for differences. Character is built as impulse control develops from participating in the steps of the process.

Many violence prevention programs do not consider child development and many prevention programs do not consider the strength of mentoring relationships. *Mediator Mentors* combines the strengths of multiple, proven approaches: social skill development (Spivak & Shure; Garbarino), peer mediation (Marvel, Moreda & Cook; Johnson & Johnson; Lane-Garon) and mentoring programs (Lieberman, McLaughlin, Smith, Hazouri, & Peyser). The resulting gestalt is a practical program that supports a positive learning environment. Peer Mediation research has most often been focused on reducing incidents of physical assault and student suspension. However, Herndon-Barstow had no problem with assault and suspension rates were relatively low (California Safe Schools Assessment, 1999). The school was interested in the developmental effects of program implementation on student disposition to consider the thoughts and feelings of others. Therefore, developmental variables as well as contextual ones were included in the assessment protocol. Additionally, administration was interested in possible program relationship to academic performance as measured by SAT-9 scores.

Setting Specifics

Herndon-Barstow is located in a rural setting in the northwest area of Fresno County and is considered a multi-community, year-round school. Although the school itself is in a rural setting, the majority of students come from all over the Central Unified School District, due to the school's "overflow status." Central Unified, once a small rural district is now the second, fastest-growing district in the state with 93% of the students living inside the Fresno city limits. California's Central Valley is primarily agricultural and multicultural. Approximately 745 students attended Herndon-Barstow at the time the study was completed. As of March 2002, enrollment had increased to 817. In grades Kindergarten through eighth grade there are four tracks. Preschool and county special education programs are also housed on campus. Ninety-five percent of the students are bussed to and from school. Seventy-eight percent of students qualify for free or reduced breakfast and lunch. The multicultural student population is approximately: White, not of Hispanic origin 28.7%, Black 13.3%, Hispanic 46.6%, Filipino 7%, American Indian – .9% and Asian 9.8%. Nineteen percent of the students are Limited English Proficient with most of those having migrant status. Approximately seventy percent of the student population qualifies for Title I services based on multiple measurements.

After being identified as an "underperforming school," an intense school improvement process was begun. In conjunction with the Pulliam Group, Herndon-Barstow developed an action plan with six focus areas. Herndon-Barstow is now in its third year of the I.I.U.S.P. process. These identified foci included: 1) reading achievement, 2) assessment, 3) extended learning opportunities, 4) mathematics achievement, 5) English Language Deficient (ELD) student transition to English Language

Proficiency and 6) learning environment. It is the sixth goal, learning environment, which is the subject of this article.

Components of the Positive Learning Environment:

Herndon-Barstow, despite having been an overflow school for district enrolment, also has had a strong school culture. Its evolution from a small, country school to a school with four tracks and a large, multicultural population took place rather quickly with the growth of the surrounding community. In order to maintain the character and climate it valued, Herndon-Barstow took some important steps. The school was the first in the district to outlaw sports and gang-related clothing. The Herndon-Barstow school climate is affected by transience. Student movement increased with the multi-track, year-round schedule. The mobility rate is 68%. Teachers connect the rise in the number of classroom disruptions and lack of parental involvement to the high number of students entering and exiting classrooms. “Connectedness” and “team spirit” are difficult to maintain under these conditions. Classroom behavior norms need to be constantly redefined and reestablished. As a result of peer mediation program implementation, students have now taken on the role of welcoming new students to the campus and orienting them as to how “problems are solved at our school.” This has reportedly increased school pride and cohesion. Since the peer mediation program is implemented across tracks, it directly affects cohesion issues. The physical plant has been addressed by the school safety plan currently in place. It includes: well lit halls, prominent signage, visitor badges, alarm system, sheriff deputy on campus, crisis response plan, personal and classroom communication systems, mediation program interfaced with discipline plan and focus on character development. Other programs positively affecting the learning

environment are D.A.R.E., parent-child academic nights, after school programs, and rewards and incentives for pro-social and academic achievement.

A qualitative description of Herndon-Barstow staff (Pulliam Group Report Commendation, 1999) further describes aspects of the learning environment—specifically teacher perceptions and attitudes:

For a site such as Herndon-Barstow, that has such a high mobility rate and has the added task of being the district's overflow school, it would not be surprising to find some teachers complacent about their position. This is not the case at all; the staff is very committed to offering their students the best education they can... These teachers believe that all children can learn and they are desperately seeking the answer to how they can best help their students succeed. Perhaps their biggest obstacle is that due to the transient student base, they feel they must do this in the quickest time possible. As a staff they are well aware of their own needs. They are in tune with their population... and have already put in place many strategies that, given the time to come to fruition, no doubt will show growth in academic achievement.

Given the nature of the school environment and the needs of students and staff in the year 2000, the peer mediation program was developed. The effects of mediation training, service, and mentoring were assessed in a pre/post manner through the use of survey assessment, standardized testing, and interview protocols. The following questions were addressed:

- Do scores on social-cognitive developmental measures increase as a result of mediation training, practice and mentoring?
- Is school climate affected by program implementation?
- Is there a pre-to-post program implementation standardized test score increase?

METHOD

As part of the school improvement effort, elementary school administration sought peer mediation program development to improve student perceptions of safety, connectedness and ultimately, to affect academic performance. In advance of working with students, elementary school staff members were surveyed to determine the level of commitment to program implementation. Commitment was determined to be strong with ninety percent of staff interested in engaging in mediation program development. Teachers willing to take leadership roles in working with the university and with the elementary students were identified. These seven staff members received training from university faculty and worked collaboratively to train elementary students. Classified personnel were also trained in order that their own, necessary roles on the playground, would interface easily and supportively with the new, peer mediators. First, however, university-conducted assessments were completed previous to peer mediation training. A blanket assessment of student cognitive, affective and contextual variables was administered to participants in grades four through eight. Importantly, mediators and non-mediators were not yet distinguished at the time of the pre-assessment.

Measurement Protocol and Instrument Description

The Davis Scales of the *Interpersonal Reactivity Index* have been used in previous studies of mediation and social skills training interventions (Davis, 1980; Lane-Garon, 1998). On this questionnaire respondents circled the numbers from 1 to 7 (*never to always*) to indicate self-perceptions of their dispositional perspective taking. For example, item 4 on the cognitive reads, “*I believe there are two sides to every question and try to look at them both.*” A rating of 7 would indicate a strong dispositional tendency to consider differing perspectives. Item 3 on the affective scale reads, “*Other*

people's misfortunes do not usually disturb me a great deal." A rating of 7 of this reverse-scored item would indicate a low level of empathy or affective perspective taking. Davis reported Cronbach internal reliability alpha coefficients of .75 for males and .78 for females on the cognitive scale and .72 for males and .70 for females on the affective scale.

The Davis Scales were considered an appropriate measure for assessing social-cognitive dispositional tendency based on the assumption that cognitive and affective processes are interrelated, can be assessed independently, and should be interpreted interactively. Davis' work represents a multidimensional approach to measurement of social-cognitive, dispositional tendency. In studying the impact of conflict resolution programs on students, we are *less* interested in their *ability* to consider the thoughts and feelings of others and *more interested* in their *disposition to do so*. This disposition, as we know is socialized by parents, family, friends and the school community members, therefore in determining whether or not the program has a positive effect, we must measure the students' change in disposition to consider the thoughts and feelings of others. Does participation in peer mediation and conflict resolution curriculum really increase the frequency or quality of perspective-taking? The Davis measure has proven effective in this measurement in the past, in similar situations and is proposed as an important component of assessment. It should be noted that, based on the experience of this researcher, the multicultural student population responded to the Davis scales with the addition of explanatory stories. The adaptation was made for the purpose of conveying meaning more efficiently to the respondents. For example, in a previous study, the word "tender" did not add to item discrimination for Hispanic

respondents (Lane-Garon, 2000). The stories were added to clarify the construct for student participants. The addition of these short illustrations may affect the reliability of the instrument, while increasing validity of the measure when used with multicultural student populations. These adaptations have been submitted to the author of the measure for review and are included in the appendix of this article.

The Conflict Survey (Lane-Garon, 1998) was designed to provide contextual information about the participants' personal and historical experience with conflict and violence. Participants responded to 9 statements similar to item 1, "*The people I live with resolve conflict by talking it out.*" A response of 4 on the Likert scale would indicate *sometimes* whereas a response of 7 would indicate that this is a very frequent occurrence in the respondent's estimation. Other items in this survey address the participants' perception of how much time they spent with a parenting adult and how often they watched TV with violent content. This measure is designed to detect changes in patterns of conflict resolution strategy choice with respect to program participation.

In accordance with grounded theory, students at a variety of grade levels can be asked, "What problems happen here at this school?" Students readily offer experiences in which a problem between students needed to be solved. Survey items on the Problem-Solving Strategies instrument can be formulated from student's "ecologically valid" issues. Although validity is served, reliability is yet to be determined. For example: Item 1, "*A classmate threatens to beat you up if you don't give him your money. You would solve this problem by: a) talking to an adult, b) trying to avoid that classmate, c) beating him up first, d) asking for mediation, e) other.*"

All measurements were administered at pre and at post-assessment intervals (10 months). Because of the year-round nature of the school and the four attendance tracks, peer mediation trainings took place at approximately two month intervals, increasing the cadre of student mediators to 130 at the time of the post assessment. Only students present at program inception and at year-one assessment were included in the final data analysis.

In the first three months of the program, elementary students were nominated by their teachers, peers and selves to become peer mediators. Stipulations were that the students' grades meet the district's criteria for co-curricular participation and signatures from two staff supporters were to be obtained. Finally, family permission to participate was also secured. The selected mediators were then trained over two days (8 hours) in communication and conflict resolution skills.

Mediation Process Description

The mediation process follows a simple, though powerful sequence in which all parties voluntarily agree to the rules of problem solving (taking turns to speak, no put downs...) before proceeding. Once the peer mediators have secured willingness to participate, disputants are guided through the following steps:

1. Statement of the Problem/Tell Your Story
2. Active Listening (Including Paraphrase Restatements)
3. Checking for Feelings
4. Expressions of Wants and Willings
5. Brainstorming
6. Proposal and Evaluation of Options
7. Cooperative Formation of Solution

Facilitating Dispute Resolution

Learning the mediation process has a positive effect on mediators. Repeating the process in the context of serving others is challenging for youthful learners and encourages prosocial skills (Spivak & Shure,1974). Mediators develop and demonstrate empathy, impulse control and anger management as they help others through the steps.

Mentors

A most important component of this proposed research project involves mentoring. When peer mediators can teach their skills to others, outside the context of their service role, they become ultimately aware of how much they know and appreciate their new skills. A linkage of mentoring relationships between college student mediators and elementary school mediators is an important component of the research project design. University student *Mediator Mentors* offered:

- support/coaching on the playground during actual mediations
- assistance planning for school-wide awareness of program to promote usage
- strategic program support: scheduling, logistics, program problem-solving
- skill development: CSUF mentors plan and conduct “skill spot” experiences to strengthen and expand elementary mediation skills.
- cooperation with elementary school staff and university faculty in planning mediation-related events

As the elementary students were being trained by the Mediator Mentor Teachers and CSUF Professors, the university students were also learning communication and conflict resolution skills from university faculty, who are themselves mediators. Mediation classes and seminars are offered at the start of every semester. The student enrollment in these university classes and seminars consists largely of future teachers, counselors, and social workers. The university students then commit to the

number of service hours required by their various programs or to the number of hours they can manage in the course of their studies. Most of the participating university mentors have been, to date, seniors or fifth year credential students. Many have been students seeking the twelve-unit Peace and Conflict Studies Certificate and many have been Teaching Credential students fulfilling service learning requirements.

The training curriculum for both elementary and university mediators closely resembles the model developed by the Community Boards of San Francisco (author, 1999). The university mediators also have the benefit of readings and experiences in adult mediation to advance their theory-to-practice understanding of the process. The university students are jointly supervised by university faculty and elementary school staff. Although no hypotheses were formed about the mentor experience, anecdotal evidence of program impact on mentors is included in the discussion of study results.

The peer mediation program's influence was magnified by the enthusiasm of staff and students. In the first year of implementation, news coverage and presentations at local and regional conferences increased program visibility. Program participants experienced reward trips to the university and to other another school with a mediation program. These occasions must be reported as part of the "treatment" in this study. It is certainly possible that the halo effect influenced study results.

RESULTS and DISCUSSION

Developmental Variables: Disposition to Consider the Thoughts and Feelings of Others

The first study prediction was supported by the data. Student cognitive and affective perspective-taking did, in fact demonstrate a pre-to-post increase, with peer mediators scoring higher on developmental assessment measures than nonmediators. A repeated

measures analysis of variance, with time as the repeated measure, revealed an effect for cognitive perspective taking as measured by the Davis subscale of the Interpersonal Reactivity Index; $F(1,149) = 11.03, p \leq .001$. The empathy or affective perspective taking scale showed a similar effect; $F(1,149) = 15.55, p < .000$. The means for the cognitive variable increased from pre-to-post assessment. An independent samples t-test revealed that although the mediator means were not significantly different from those of nonmediators at pretest (no preexisting differences), the mediator means were significantly different from the means of nonmediators at posttest; $x = 32.923$, compared to $x = 28.521, p \leq .001$. This may indicate that the practice of mediation as a facilitator has a more powerful effect than participation as a disputant.

Pearson correlations for the empathy and cognitive variables revealed stronger relationships at post assessment than at pretest. It is interesting to note that the tendency or disposition to consider the thoughts and feelings of others (cognitive perspective taking) at pre assessment is only moderately related to empathy $r = .45, p < .000$; while at the posttest (ten months later) these variables were more highly correlated at $r = .61, p < .000$. This finding may suggest that getting into the habit (nurturing a disposition) of making inferences about other's thoughts can lead to more accurate understanding of other's feelings and hopefully to behavior that considers them.

With respect to change over time, the empathy variable performed similarly to the cognitive variable. There was a significant effect for the score increase in affective perspective taking--again with mediators scoring significantly higher than nonmediators; $F(1, 149) = 15.55, p < .000$.

Student Experience with Conflict and Strategy Choices

When the students were asked to complete the conflict survey about their personal experience, their responses were grouped into conflict-negative and conflict-positive behaviors. For example, “*People I live with resolve conflict with yelling*” was scored as a conflict-negative behavior. “*People I live with resolve conflict by talking it out*” was scored as a conflict-positive behavior. Analysis of variance revealed that student experience with conflict-positive behavior was not differentiated by mediator status at pretest. In other words, neither group indicated they had significantly more conflict-positive experiences than the other. However, by posttest, mediators indicated significantly more conflict-positive behaviors than nonmediators; $F(1,79) = 7.53, p \leq .007$. The means for conflict-positive behaviors at posttest were: mediators $x = 15.85$ and nonmediators $x = 13.34$. This finding suggests that training and practice in peer mediation may also affect homelife or at least the student’s perception of home conflict resolution style, when looking through more informed and experienced eyes—having been trained in the school-based mediation program. Relatedly, after ten months, the majority of study participants preferred to resolve interpersonal problems by talking to the individual with whom they have a difference. Initially, seeking the assistance of an adult was preferred. This shift in strategy choice may be due to the fact that study participants who are mediators as well as those who participated as disputants increased their knowledge and ability to resolve problems peacefully. The preferred strategy choice might be explained by an acquired sense of empowerment.

Perceptions of School Safety

Both mediators and non mediators rated the school environment as *safe* and *very safe* with the mean for nonmediators; $x = 3.7$; and for mediators and $x = 4.0$ on a 1-5 point scale. Additionally, parents who attended the “town hall” discussion on school safety and the district safety faire also perceived the school climate to be safer than they had reported in the district survey administered the year previous to peer mediation program implementation. However, because of incomparable cell sizes, the parent survey results are reported anecdotally only.

The Central Unified School District administers a school climate survey yearly. Generated are student perceptions of school safety. In the first year of the mandated school improvement process, the Pulliam Group guided the academic interventions and also administered a school climate survey. This survey had four questions identical to those asked the previous year on the district-administered survey. All students completed the surveys. When the responses to Pulliam’s *Student Learning, School Culture, Expectations for Success* and *Safe Environment* survey were compared to the previously administered district measure, an increase in perceptions of school safety was revealed. When responses of 2001 were compared to those generated in 1999, 66% of Herndon-Barstow students either agreed or strongly agreed that they felt safe on campus. This represented an increase from 56% in 1999. In response to the survey item: *other students treat me with respect at school*, 58% of Herndon-Barstow students (2001) agreed or strongly agreed, as opposed to 47% in 1999. Those students who agreed or strongly agreed that they were responsible for helping with safety on campus were 56% in 2000

versus only 49% in 1999. Responding to the “connectedness variable, “only 47% *felt they belonged* at the school in 1999. But in 2001, after initial *Mediator Mentors* program implementation, 58% of students report feeling like they belonged.

Pulliam Survey Item	1999 agree or strongly agree	2001 agree or strongly agree
<i>I feel safe</i> at school	56%	66%
Students treat me w/ <i>respect</i>	47%	58%
I can help with school <i>safety</i>	49%	56%
I feel like <i>I belong</i> here	47%	58%

It should be noted that the greatest gain reported from survey data is in the perceptions of school safety domain.

Mediation and Academic Performance

Also predicted was a relationship among peer mediation program implementation, standardized score increase (especially language arts), and perception of school climate for program participants. This relationship is most difficult to determine due to the fact that the academic year in which *Mediator Mentors* was first implemented, was a “banner year” for the elementary school. Intensive reading and language arts initiatives were implemented at about the same time as the peer mediation program began. As an “underperforming school” there was considerable pressure to improve test scores and to do it soon. In fact, both mediators and non mediators improved standardized test scores at about the same rate. The mediator mean for language arts scores at pretest was $x = 37.72$ as compared with the pretest mean for nonmediators $x = 35.50$. Ten months later, the language arts mediator mean was $x = 43.00$ and the nonmediator mean was $x = 42.65$. The groups did not differ significantly over the interval, but their growth, when added to the growth of the entire school population was highly significant. The

Academic Performance Index Score for Herndon-Barstow represented the greatest gains for any school in the district in all subject areas. In California, in the year of this study, the Academic Performance Index is calculated annually from scores on the Stanford 9 series of tests. The target for improvement in the year of this study's implementation was 10 points and the growth actually achieved was 40 points. This was a tremendous gain for all the students at Herndon-Barstow. There was no interaction between mediator status and standardized test score. Under these conditions it is not possible to statistically determine the extent to which the *Mediator Mentors* program--with its emphasis on language and reasoning skills influenced academic performance.

In a letter to the university faculty collaborator, the district superintendent observed, "...no doubt your program contributed to the great improvements made at the school this past year" (personal communication, 2001). With the reported improvements in perspective taking and perception of safety, this may, indeed have been the case.

As the mediation program continues to impact school environment, assessment will proceed. Perhaps in subsequent years the relationship between academic performance and the ability to listen, paraphrase, summarize, empathize, make inferences, analyze the consequences of possible choices, and regulate emotion may become clearer.

IMPLICATIONS FOR PRACTICE

The contributions of study findings to educational practice are meaningful. The interventions outlined in the study provide practical opportunities for social skill learning and development. The model is fairly easy to replicate through university-school partnerships. University students preparing for roles in helping professions benefit from

mediation training and practice. Over 60% of the university mentors in this project are becoming credentialed teachers; the rest, counselors and social workers. A program in which communication and problem-solving is central is a fine induction to the culture of their future profession. *Mediator Mentors* supplies university students with the communication and conflict resolution training they will need to build positive relationships with families and administration. This type of training is often sorely lacking in teacher education programs due to impacted curriculum.

Elementary students benefit from interaction with university students who are young enough to vividly remember their own, recent public school experience and who themselves care about developing empathy, practicing respectful communication, and cooperation. We have evidence from recent, painful experiences in Arkansas, Colorado, Georgia and California of the negative impact of peer relationships. *Mediator Mentors* capitalizes on positive peer power. Parents need not be alone in teaching the values and actions of civility. Schools are increasingly recognizing and accepting their roles as centers of cultural socialization. Education needs to embrace this role on multiple levels. A caring community of learners is created in many ways—by the convergence of a variety of undertakings and enterprises designed to encourage adaptive development in the next generation. There are many schools like Herndon-Barstow; waiting for the convergence of social-emotional and academic initiatives to provide the right chemistry for school improvement. Accountability is not just about test scores, but also about how we are preparing youth to deal with differences—of opinion, of background, of intention.

IMPLICATIONS FOR RESEARCH

Although I am appreciative of the recommendation for increased rigor in CRE program evaluation, I have some concern about the promise of classical models of positivism in educational settings. As all educational researchers know, there is an inherent confounding of influences in school settings. Consider the control group—It is still possible to find schools without CRE programs, but thankfully, these schools are usually working at increasing empathy, for example, through other means: leadership or diversity training. It is nearly impossible to compare effects of a “*treatment*” to effects generated by “*the absence of that treatment.*” Even in the same school, a CRE program may be focusing on increasing empathy...along with the diversity program, the anger management program, and the “special friends” program. I believe that we must attend to the isolation of our variables, their definitions and measurement with integrity, but to claim that trusted empirical models produce completely reliable results in school settings is to mislead. Kmitta has provided a masterful summary of the unique challenges provided by school-based research and recommendations in the face of these (in Jones and Kmitta, 2000).

One way to approach further CRE research is to select measurement instruments aligned with the five CRE program goals. Then, with these goals on the table for all participants to reference, the creators of the educational environments should be asked, “*What do you want to accomplish with this program?*” “*What questions would you like to answer?*” There is a very good chance that administrator’s answers will differ from the teacher’s and the school psychologist’s will differ from the student’s. For example, in the study discussed in this article, the administration had state-mandated questions to

address. When this approach is taken, there will be some instruments created that have no determined reliability, though “ecological validity” may be advanced. Practitioners often say, “Year three is magic.” If indeed, CRE programs build momentum over time, then opportunities to determine reliability and validity of “naïve” instruments exist, if there is a shared commitment to measurement improvement. This researcher would recommend use of a combination of measures and procedures (paper-pencil tasks in addition to town hall meetings) to assess program impact. Developmental Psychology, Communication, Counseling and other disciplines associated with the promotion of adaptive human development, offer us a variety of reliable and valid assessments to measure change in individual student cognitive and affective dispositions with respect to CRE program implementation. These well-established measures should be relied upon.

Interprofessional collaboration seems a natural outgrowth of well-defined CRE program goals having implications for a variety of academic disciplines and practitioner purvues. We need to maintain awareness that our work is grounded in human development and therefore, interdisciplinary responsibility is implied. And further, a number of methodological approaches to evaluation may be appropriate as long as they emerge from a theoretical context and are aligned with the CRE goals. Attention to these cautions may advance our work and assure its longevity in the education of youth.

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APPENDICIES

Mediator Mentors: Measurement Instruments

Problem-Solving Strategies Survey

(Prompts generated by K-8 students; Lane-Garon and Richardson, 1999)

form A. **Directions: Think about the following problem and pick the best solution.**

1. A classmate spreads an untrue rumor about you and a girl.

You would solve this problem by:

- a) asking for mediation
- b) talking to an adult
- c) talking to the classmate who spread the rumor
- d) other _____

2. A classmate threatens to beat you up if you don't give him your money

You would solve this problem by:

- a) asking for mediation
- b) talking to an adult
- c) talking to the classmate with whom you've had the problem
- d) other _____



Problem-Solving Strategies Survey

name _____	community role _____
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form B. **Directions: Think about the following problem and pick the best solution.**

1. You accidentally spread gossip about another student. This student is now mad.

You would solve this problem by:

- a) asking for mediation
- b) talking to an adult
- c) talking to the classmate with whom you've had the problem
- d) other _____

2. You tease a certain student a lot and you've gotten in trouble for this in the past.

You would solve this problem by:

- a) asking for mediation
- b) talking to an adult
- c) talking to the classmate with whom you've had the problem
- d) other _____

