Summary: This chapter describes the development of a multimedia mediation program ("Talking It Out") that helps young adolescents resolve conflict peacefully. The development and content are described, together with pilot test data from 16 pairs of disputing students. These case studies provide evidence of the popularity and effectiveness of computer-based mediation.

Early adolescence is a particularly vulnerable time in development. Young people are experiencing major, rapid developmental changes at a time when society sends them mixed messages about how they should behave. It is essential to provide young adolescents with the information and social skills they need to be successful in their journey toward adulthood. The meteoric rise in youth homicides in the early 1990s and the tragic cases of multiple homicides in schools in the late 1990s have highlighted the need to teach adolescents how to resolve conflicts nonviolently.

A popular approach to teaching conflict resolution skills is mediation (Lupton-Smith et al., 1996; Schrumpf, Crawford, & Bodine, 1997). In mediation, the disputing parties meet with trained mediators, who often are their peers, to proceed through a scripted problem-solving process. Various forms of mediation are currently in use in schools, community organizations, and the juvenile justice system. Strong anecdotal evidence from social workers, educators, and others supports the effectiveness of mediation, although few rigorous evaluations of mediation with adolescents exist (Johnson & Johnson, 1998).

Since the late 1970s the author has been involved with colleagues at the University of Wisconsin-Madison and Indiana University in several projects using technology to teach young
people the social skills they need to choose and maintain a healthy lifestyle (Bosworth et al. 1983; Gustafson, et al., 1987; Bosworth and Yoast 1991; BARN Research Group, 1994, Bosworth, Haakenson, & McCracken, 1997; Bosworth, Espelage, & DuBay, 1998). Because adolescents are drawn to fast-paced, colorful, energetic media and are the major consumer group targeted by video games and the popular music industry (Funk & Buchman, 1996; Hepburn, 1995), she has focused her research on the appropriate application of the technology in prevention interventions for adolescents. These interests have led her to develop and evaluate several software programs addressing drug abuse prevention, AIDS education, stress management, and related topics.

Unfortunately, much of the software, video games, and even music available to adolescents have violent themes and lyrics. The messages in many of these media are that (1) violence is the way to solve problems, and (2) the key to success is to be more violent than your opponent. These are not life skills that will help young people achieve long-term success in life through cooperation, negotiation, active problem solving, and nonviolent conflict resolution. Because electronic media are so attractive to this age group, however, the author became interested in the potential to harness these formats for teaching students prosocial skills for peaceful conflict resolution, instead of antisocial and counterproductive skills.

With a multiyear development grant from the Centers for Disease Control and Prevention, the author and colleagues developed a software package called *SMART Talk* (marketed as *SMART Team*) to teach adolescents skills for resolving conflict (Bosworth et al. 1996). Designed for distribution through a commercial publishing house (Learning Multi-Systems), this was a major undertaking that involved a team of researchers, artists, graphic designers, and programmers proficient in C++ programming language. Modules within *SMART Team* address...
anger management, perspective taking, and mediation, all important components of conflict resolution. This chapter will describe the content, development, and evaluation of the mediation module named "Talking It Out."

"Talking It Out" is designed for use in a school or agency setting. It can be used independently by adolescents (alone or in pairs), in a group setting, or as a counseling intervention, with pairs of young people in the midst of a dispute being assigned to use the software as an alternative to mediation facilitated by a peer. Thus, "Talking It Out" is a flexible and adaptable tool that can be implemented in many different settings. The professionals in those settings—social worker, counselor, principal, teacher, etc.—play a key role in determining how best to utilize the software in that organizational context.

Description of the Software

The content of “Talking It Out” is geared for adolescents in grades 5 to 9 (roughly ages 11 to 15), and is intended to achieve the following objectives:

✓ To provide a process for negotiating conflict between two adolescents

✓ To increase adolescents’ confidence in their ability to find a nonviolent solution to a dispute

✓ To allow both parties to understand their own and the other person’s positions

✓ To enable the users to identify the barriers to resolution of the conflict

✓ To assist them in identifying possible solutions
To facilitate a win-win situation, where both parties feel satisfied with the process and outcome.

The software content was determined by reviewing 11 conflict resolution and mediation protocols. Because no other conflict resolution materials are available in software format, print materials were reviewed to identify the aspects most appropriate for use in a software format, and the processes described in the books were modified to operate as an interactive interview on computer. Among the printed materials consulted were Mediation for Kids (Peace Education Foundation, 1990), Mediation: Getting to Win Win! (Peace Education Foundation, 1994), Peace Patrol (Peace Patrol, 1994), Peer Mediation: Conflict Resolution in Schools (Peer Mediation, 1991), Students Resolving Conflict: Peer Mediation in Schools (School Mediation Associates, 1984), and Conflict Resolution: An Elementary School Curriculum (Community Board Program, 1990). (None of these materials were credited to named authors.) From this review, a mediation model was formulated that embodied the processes most commonly used in existing programs. This draft model was reviewed by two experts in mediation and a focus group of teen mediators who had several years of mediation experience. The final model for “Talking It Out” contained the following steps:

1. Introduction and Ground Rules
2. Telling Each Story
3. Story Verification
4. Discussion
5. Generation of Solutions
As in live mediation, the “Talking It Out” model assumes that two disputants will be present at the computer. When two partners access the program together, they are guided through the mediation process as follows:

**Introduction and Ground Rules:** A graphic character introduces the program, explaining that its purpose is to help “you and your friends learn ways to solve problems and avoid fighting or getting in trouble.” The features of a successful solution are laid out:

- ✓ nonviolent
- ✓ possible to do
- ✓ balanced
- ✓ easy to see results

At this point, a “Teen Panel” (represented in the software as four graphic characters based on ten actual peer mediators who consulted in the software development) appear on the screen to give the students suggestions for how to approach the mediation process. Each makes a suggestion, such as, "Keep a cool head" or, "Go in with a positive attitude." The option to get advice from the Teen Panel appears at several points in the module.

Next, each user has to click “yes” to agree to each of the ground rules listed below. The subsequent screen cannot be accessed until both parties respond "yes" to each of the following statements:

1. “I want to solve the conflict.”
2. “I will be respectful.”
3. “I will be truthful.”
4. “I will keep things confidential.”

**Telling Each Story:** Users decide who goes first. The first person types in his or her side of the conflict, and is able to add or revise the text until the “continue” button is clicked. Then the other
user has the opportunity to do the same. Instructions on the screen remind the waiting disputant not to interrupt while the first person types in his or her story.

**Story Verification:** Each user in turn is presented with the other party’s written statement and asked to type in what he or she thinks the other person is saying. Users are encouraged to ask questions for clarification as necessary throughout this process.

Then the person who wrote the statement is asked whether the other party understands it correctly. If not, the person is asked to retell the story in different words. This cycle can be repeated as many times as necessary until both parties agree that they understand each other’s positions. This step is important because research shows violent youth tend to have difficulty empathizing with others and making accurate attributions about the motives for others' behavior (Miller & Eisenberg, 1988).

**Discussion:** Users are invited to identify three issues they need to discuss and enter them in the computer. The Teen Panel again appears to give users advice such as, “Put yourself in each other’s shoes,” and “What did you learn that was new?” At this point, users engage in face-to-face interaction without accessing the computer to discuss the issues, their feelings, and the conflict. When they are ready to proceed, they click “continue” to access the “solutions” screen.

**Generation of Solutions:** Each person is asked to enter three things he or she could do to solve the problem. Advice from the Teen Panel is available, if desired. Then the parties are asked to evaluate (1) whether their solutions meet the four criteria of a good solution (described previously), and (2) whether they are willing to do these three things. Anyone who answers “no” to either of these questions is given an opportunity to enter new solutions and evaluate those. Thus, users can cycle through this component of the program several times if necessary until both are satisfied with the solutions.
Creation of a Contract: When both parties agree to their three solutions, these items are embedded in a contract form that lists each person’s name and the three items he or she has agreed to do, with lines for signatures and dates. Users have the option to print copies of this contract, so they can actually sign and keep a physical document if they so wish. In situations where students are assigned to complete “Talking It Out,” the contract could serve as a record of resolution of the conflict. This is a means of allowing the disputants to complete the mediation process independently and reach their own solutions while maintaining accountability.

Referral Process

“Talking It Out” was initially conceived as part of a universal violence prevention program (SMART Team), applicable and available to all students. During the field implementation of the outcome evaluation in an urban middle school, however, a school social worker and teachers asked whether this module might be an appropriate tool for two students who were in a bitter, ongoing dispute. With this impetus, the evaluation team created a protocol and standardized process that school personnel could use to refer students for computer-based mediation, so that the effects could be assessed:

1. **Initiation of referral:** The person making the referral familiarized the research liaison with the conflict. When referring students with relatively serious disputes that had also triggered formal administrative action (e.g., in-school suspension), the person completed a written referral form. This form documented the nature of the conflict and what administrative action occurred as a result of it.
2. **Screening:** The research liaison reviewed the referral form to determine whether computer-based mediation was appropriate. If so, the disputants were scheduled to complete "Talking It Out" within a few days, typically during a regular class period.

3. **Module completion:** Disputants completed the module together. The research liaison determined whether the students were already familiar with the program, and if not, provided a brief overview of the content and purpose. The research liaison remained in the room at a distance, usually doing other work. She did not observe what the students were typing, and interacted with them only when they had questions about how to operate the computer.

4. **Post-mediation interview:** Disputants were interviewed immediately after they printed out their contracts, to elicit their reactions and feelings as to whether the conflict had been resolved. The primary purpose of this interview was to verify that students had in fact completed the process and made progress in resolving their dispute.

5. **Follow-up interview:** The disputants were interviewed individually about a week after using "Talking It Out," to determine the status of their relationship and whether they had implemented the solutions in their contracts.

6. **Report:** The research liaison informed the referring party of the status of the conflict without revealing any confidential information about the process or the resolution.

**Case Study of Use**

One of the more serious conflicts involved two white, sixth-grade females. Prior to this altercation, the two generally had been considered best friends; their teacher reported that they spent most of their time in class together, working very well together in groups and one-on-one.
The conflict erupted during the transition after fourth-period study hall. The two girls were heard calling each other names and repeating gossip apparently passed on by others ("she said you called me . . . ;" "he said you think you can beat me up . . . ;" and similar accusations). When the two entered the hallway, the name calling quickly escalated into shouting, then a shoving match. One young woman turned around and punched the other, breaking her nose. They were quickly separated by a nearby teacher and taken to the sixth-grade principal's office.

Each student met individually with the principal to explain what had occurred, and both were punished for their participation in the conflict. The first received a three-day in-school suspension while the second (the puncher) received out-of-school suspension for the same period. After reviewing "Talking It Out," the principal referred the pair for computer-based mediation. Subsequently, a second referral was initiated by a teacher after the two students returned to class.

Computer time could not be scheduled immediately because the girl with the broken nose was frequently absent due to doctor's appointments and recurrent migraine headaches (a result of the injury). The two were scheduled to use "Talking It Out" in a private room 18 days after the conflict. When they entered the room, they still were not speaking to each other, and the teacher who initiated the second referral reported that the atmosphere in the classroom still was very tense "like walking on eggshells."

Both students agreed they were willing to try the program, and when they sat down at the computer together, they quickly began cooperating. One volunteered to read the screen while the other offered to operate the mouse. They continued cooperating for more than half an hour, each even offering the other a chance to tell her story first. On finishing, they printed out their contracts and appeared quite pleased with them.
During the post-use interview, one girl reported that "Talking It Out' helped us solve some of our problems. If it weren't for using it, [the fight] probably wouldn't be resolved yet." The other indicated, "Talking It Out' really helped us. I misunderstood her and stuff, and now everything is OK." They found the process more helpful than being interviewed by the principal. One commented, "When we talked to the principal, all sides of our problem didn't come out. . . . He just kept asking who started it, and it all happened so fast, I don't think we even knew." The other added, "It is good to be able to write and read our own stories without talking and without an adult getting involved."

The following day the teacher reported in amazement that the tense atmosphere in the classroom had completely evaporated. Both girls were willing to work together in groups and even one-on-one. She said, "I just can't believe that working through 'Talking It Out' has resolved everything for these girls; they are even recommending it to other students in the class to solve their conflicts." For the two months remaining in the school year, this pair again became good friends, with no further conflict occurring between them.

**Evaluation of Software Effectiveness**

The two evaluation studies completed to date have involved the complete *SMART Team* software, including the "Talking It Out" module. Results of these two studies indicate that the overall *SMART Team* package is an effective and motivating format for both information delivery and skills building to middle-school students. No differences in use rates could be attributed to gender, ethnic membership, or socioeconomic status. The medium of computer software has the potential to engage a population at risk for violence who may not be engaged by traditional prevention approaches. "Talking It Out" was one of the more popular components of
the SMART Team package among all the students in the intervention group (n = 195). Those students reported using this component an average of 8.4 times, but whether they were actually using it to resolve a dispute or simply exploring cannot be determined, because these students were not monitored during their use of the computer. The evaluation studies are reported in detail elsewhere (Bosworth, Espelage, & DuBay, 1998; Bosworth et. al. in press), so the following focuses on evaluation data collected from interviews with students who used “Talking It Out.”

During the semester that SMART Team was implemented in the urban middle school, 16 pairs of disputants, 31 students in all (one student was involved in two separate conflicts), were referred. Nine of the 16 pairs monitored were female, five were male, and two comprised one male and one female. Fourteen of the 16 disputes occurred on school property. Of these conflicts, 14 involved some degree of physical contact, ranging from one broken nose and one broken arm, to pushing and shoving, to grabbing money from someone’s hand (see table 1). For purposes of data collection for the pilot study, all but one of the disputants were interviewed again at the end of the semester (in most cases two or three months after use of “Talking It Out”).

Among the 16 pairs who were observed using “Talking It Out,” none committed a repeat offense or was referred for any disciplinary action (including repeat of “Talking It Out”). One student, however, was referred again with a different person to resolve an unrelated, nonviolent altercation. Of the 15 pairs who participated in the final interview, six said their friendships had improved since the “Talking It Out” experience. Five pairs reported that their relationship had returned to its pre-mediation status, and one pair disagreed, with one party reporting being friends and the other saying the pair was not friendly. Three pairs reported being distantly civil but not friendly; in these instances it seems that people who disliked each other before the altercation essentially learned to tolerate each other. Most students agreed that their relationships
were no worse than prior to the “Talking It Out” experience. In the most positive case, two girls who had not previously been friendly reported becoming “best friends.”

When asked whether they had applied the “Talking It Out” principles in other conflicts, 12 students reported having had no opportunity to do so. Seven individuals offered various anecdotal examples of things they had done. Several described ways they had avoided conflicts by thinking about the situation before starting an argument, trying to talk things out instead of getting into fights, and showing more respect for other people. Four students reported using resolution principles during an actual argument, including one who drew up a contract with her sister and another who confronted a friend about a rumor (and discovered it to be untrue). One student reported thinking about “Talking It Out” after a fight and going to the other party the next day to talk things out.

A compelling finding from the interviews was that the students who had experience with live mediation facilitated by a peer universally preferred the computer-based experience. They appreciated being empowered to resolve their dispute independently, without having to explain their situation to a third party. Other students perceived that the human mediators had been overly directive, or had taken sides, or had pressured them to apologize before the disputants felt the situation had been resolved. None of the students reported that the presence of the research liaison had interfered with the process in any way.

**Lessons Learned**

Although “Talking it Out” was not originally designed as a separate intervention within this study, project staff quickly developed a protocol that included close observation of the students’
work with the software and follow-up with disputing students and their teachers. Several lessons
can be shared from this small pilot that may be useful for those interested in developing or using
computer-mediated mediation:

1. Privacy and confidentiality were important to the students. Students preferred “Talking It
   Out” over traditional peer mediation because of their concern for personal privacy. Some
   were worried that the mediators would share personal information learned in mediation, but
   for some the concern was more subtle. One student said, “They (mediators) may never tell
   anyone, but they still know something about you that I’m not so proud of.”

2. Initially, the amount of space students had to write their stories was limited. Most students
   were frustrated by this limitation and wanted unlimited space to tell their story. Not having
   enough screen space to write was a barrier to problem solving.

3. The use of a printed contract was critical in helping students take the process seriously and
   commit to carrying out the solution they generated. When interviewed several months after
   completing “Talking It Out,” more than 80% of students knew where their contract was.
   Several carried it with them, and others reported having looked at it at some time after
   completing the program.

Discussion

This pilot evaluation indicates that “Talking It Out” can be a powerful intervention in
settings where teens might experience conflict. "Talking It Out" has been used primarily in the
school setting, both in counselors' offices and computer labs. Other settings, such as juvenile
facilities and community agencies are also appropriate. The sole constraint on setting of use is
presence of the necessary computer hardware (Macintosh with CD-ROM drive).
All instructions for using "Talking It Out" are embedded in the software, allowing adolescents to use the module independently. Field testing proves that middle-school students had no difficulty using the program without special training or close supervision (Bosworth, Espelage, & DuBay, 1998). Thus, if the software is available on a computer to which young people have free access, they could potentially use the program without adult knowledge or intervention. When conflicts come to adult attention, the adult may wish to have an initial conversation with the disputants to ensure that computer-based mediation is an appropriate avenue for resolution. If the conflict involves a serious infraction, such as theft or physical injury, it may be appropriate to impose additional consequences such as disciplinary action or restitution, in accordance with the policies of that institution.

If two disputants are assigned to use the program (for example, as an alternative to traditional disciplinary procedures), unobtrusive monitoring is appropriate to ensure that they actually complete the process in good faith and reach some resolution. However, among the features that most appealed to young adolescents using the program were privacy and independence in resolving their own dispute.

Reports of student users have been overwhelmingly positive, and some recommended that their friends try it. Initial resistance is possible, especially from adolescents who are required to use the program as part of disciplinary action. Indications are, however, that once young people understand the program and its purpose, most will use it willingly and some will even initiate use.

Why was the computer so popular? Based on students’ reports, several reasons can be suggested:
Privacy and independence are powerful motivators for adolescents, who often struggle against adult authority and gossip generated by peers. “Talking It Out” offers confidentiality, yet the printed contract can be used for record keeping purposes.

Time constraints are essentially removed with the computer. Disputants can take however much time they wish to write and rewrite, read and reread, process and reprocess their own and the other party’s positions before moving to solution seeking.

The computer is a completely neutral piece of machinery that cannot interrupt or comment on what a user types in. Possibly for this reason, several students commented that it was easier to input what they really thought and felt into the computer than to tell their side to an administrator or mediator. As one young woman commented, “We were able to communicate by reading instead of just talking. You know that they will at least read it. I had time to let off steam. It was easier because we were in a quiet place where no one was.”

The fact that only one user at a time can use the keyboard gives the other person a “cooling off” period, while minimizing interruptions and arguments in each person’s retelling of what occurred. As one student explained, “you have to learn to respect the other person because you can’t exactly push their hands aside and start typing.”

Written composition may facilitate objectivity: Self-monitoring may be enhanced when adolescents see their words in print—and they have the option to backspace and “unsay” something that did not come out the way they had intended. Spoken language is interpreted on two levels: the words that are spoken and the unspoken messages in body language, inflection, etc. Printed text is devoid of these emotional cues, making it easier for young people to state their feelings without appearing accusatory and to read and respond to the other person’s side
In summary, these case reports suggest that “Talking It Out” is not only an effective tool in assisting adolescents to resolve interpersonal conflicts, but also teaches skills that they are readily able to identify and apply in other situations. Although the program requires at least 45 minutes of concentrated work to complete, students did not complain, and many described it as “fun” and “easy to use.” For some, simply writing and reading each other’s stories led to resolution. One young man remarked that he was “understood for the first time” by the other party. Classroom teachers corroborated that there had been no disputes among the referred pairs and generally reported a more positive classroom atmosphere.

Availability

The SMART Team software package has been published on CD-ROM by Learning Multi-Systems (LMS) in two versions. The standard SMART Team disk contains eight modules that address knowledge, anger management, perspective taking, and dispute resolution. The special-edition SMART/Cool CD incorporates three short videos produced by different authors for American Guidance Service.

References


ABOUT THE AUTHOR

*Kris Bosworth*, Ph.D., holds the Smith Endowed Chair in Substance Abuse Prevention in the College of Education at the University of Arizona.
Table 1. Characteristics of pairs referred to "Talking It Out"

<table>
<thead>
<tr>
<th>Pair</th>
<th>Gender of Disputants</th>
<th>Nature of Dispute</th>
<th>Injury</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>female/female</td>
<td>escalating name</td>
<td>broken nose</td>
<td>resolved</td>
</tr>
<tr>
<td></td>
<td></td>
<td>calling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>female/female</td>
<td>rumor</td>
<td>torn blouse</td>
<td>resolved</td>
</tr>
<tr>
<td>3</td>
<td>female/female</td>
<td>rumor</td>
<td>--</td>
<td>resolved</td>
</tr>
<tr>
<td>4</td>
<td>female/female</td>
<td>name calling</td>
<td>scratch</td>
<td>resolved</td>
</tr>
<tr>
<td>5</td>
<td>female/female</td>
<td>bus conflict</td>
<td>throwing books, etc.</td>
<td>1 party felt resolved/1 felt not resolved</td>
</tr>
<tr>
<td>6</td>
<td>female/female</td>
<td>hallway</td>
<td>pushing</td>
<td>resolved</td>
</tr>
<tr>
<td>7</td>
<td>female/female</td>
<td>name calling</td>
<td>hair pulled</td>
<td>resolved</td>
</tr>
<tr>
<td>8</td>
<td>female/female</td>
<td>hurt feelings</td>
<td>hair pulled</td>
<td>resolved</td>
</tr>
<tr>
<td>9</td>
<td>female/female</td>
<td>rumor</td>
<td>pushing</td>
<td>not interviewed</td>
</tr>
<tr>
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<td>male/male</td>
<td>challenge fight</td>
<td>broken arm</td>
<td>resolved</td>
</tr>
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<td>11</td>
<td>male/male</td>
<td>grabbed money</td>
<td>bruise</td>
<td>resolved</td>
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<td>male/male</td>
<td>pushing in hallway</td>
<td>torn clothing</td>
<td>resolved</td>
</tr>
<tr>
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<td>male/male</td>
<td>challenge fight</td>
<td>grabbing</td>
<td>resolved</td>
</tr>
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<td>resolved</td>
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<td>scratches</td>
<td>resolved</td>
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<tr>
<td>16</td>
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<td>resolved</td>
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