

# Effects on High School Students of Conflict-Resolution Training Integrated into English Literature

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**ABSTRACT.** The effectiveness of a conflict-resolution program in a suburban secondary school in Canada was examined. Participants were 40 ninth-grade English students heterogeneous in academic ability. Students randomly assigned to the experimental condition received 9.5 hours of conflict-resolution training integrated into the study of literature. Those randomly assigned to the control condition studied the identical literature for 9.5 hours without conflict-resolution training. Significant differences between treatment groups were found in academic achievement, knowledge of and willingness to use the conflict-resolution procedure, and application of the procedure in conflicts.

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Guaranteeing students' safety and an orderly environment in which to learn is becoming more and more difficult (Posner, 1994). Verbal threats and physical aggression—name-calling, insults, pushing, shoving, and fighting—occur daily (Opatow, 1989; Stop The Violence, 1994). As student conflicts have become increasingly destructive, educators have advocated that students be taught how to resolve conflicts constructively in school (Johnson & Johnson, 1995; Rifkin, 1991). Training is required if students are to learn constructive ways to manage interpersonal conflicts.

Through conflict-resolution training, students learn to negotiate constructive resolutions to their conflicts. Negotiation is a process by which people who have both shared and opposed interests and wish to come to an agreement attempt to work out a settlement (Johnson & F. Johnson, 1994; Johnson & R. Johnson, 1995). There are two approaches to negotiation. The *integrative* approach tries to maximize the gains of both oneself and the other (disputants use creative problem-solving procedures to find an agreement that gives both parties what they want). The *distributive* approach tries to maximize one's own gains at the expense of the other (disputants seek to wrestle concessions from each other to converge on an agreement). In cooperative contexts where relationships are ongoing (such as families, work, and

schools), the integrative approach to negotiation results in the most constructive outcomes (Johnson & Johnson, 1995; Pruitt, 1981).

Although conflict-resolution programs are being implemented in many schools, there has been little empirical search on their effectiveness. Advocates for conflict-resolution programs in schools have asserted that the programs reduce suspensions and detentions, referrals to the principal, and absenteeism, while increasing students' self-confidence, time spent on academic tasks, and academic achievement (Araki, 1990; Davis, 1986; Lam, 1989; Marshall, 1987; Maxwell, 1989; Tolson, McDonald, & Moriarty, 1992). Such claims, however, are suspect, because of several shortcomings. They have been subjected to few studies, and most of those studies have been methodologically weak and atheoretical; hence, they have no connection to the theory and research on conflict resolution. The samples of students studied have been primarily elementary-school populations in the United States—leaving unanswered whether the results hold for secondary-school students and students in other countries.

Researchers have tended to ignore the literature on innovation in schools, which indicates that special programs are not widely adopted and maintained unless they increase achievement and are integrated into the teaching of regular subject matter, such as English or history. By failing to relate their findings to achievement and advocating conflict resolution training as a program taught in addition to and separate from academic content (thereby increasing teacher overload and the incoherence of classroom life), advocates of conflict-resolution training risk having their programs ignored or quickly dropped.

We designed the present study to determine the effectiveness of a theoretically based conflict-resolution program with a methodologically sound design; that is, we integrated conflict-resolution training into a unit of subject matter taught in a Canadian senior high school. We decided to determine the program's impact on academic achievement, the learning of the conflict-resolution procedure, and students' ability to apply the procedure to classroom conflicts.



## Method

### Participants

65 Forty students in two ninth-grade English classes in a  
suburban high school in Ontario, Canada, participated in the  
study. All students were from middle-class backgrounds.  
Both classes were heterogeneous in academic achievement,  
70 with a number of gifted and special-needs students in each  
class. There were 20 students in each class. We randomly  
assigned 9 students (3 boys and 6 girls) in the third-period  
class and 11 students (5 boys and 6 girls) in the  
80 fourth-period class to an experimental condition in which  
conflict-resolution training was integrated into the study of  
the required literature curriculum. We randomly assigned 11  
students (3 boys and 8 girls) in the third-period class and 9  
students (3 boys and 6 girls) in the fourth-period class to a  
control condition in which the identical required literature  
curriculum was taught without the integration of conflict-  
resolution training.

### Independent Variable

We used a pre-post/experimental-control group design.  
The independent variable consisted of two conditions: (a) an  
85 experimental condition in which students studied a novel  
and received conflict-resolution training integrated into the  
academic material and (b) a control condition in which stu-  
dents studied the novel without learning the conflict-  
resolution procedure. In both the experimental and the  
control conditions, students were required to read a chapter  
or more a day and to write assignments in a notebook.

90 In the control condition, students read the book and  
completed the notebook alone. Students spent 100% of their  
class time studying the novel and making notebook entries.  
In the experimental condition, students worked in pairs for  
the first six class periods and triads in the final two class  
95 periods to complete the notebook and the following addi-  
tional assignments: (a) identifying the conflicts in the as-  
signed chapter(s), (b) writing a description of one of the  
conflicts, (c) writing what each character would say if he or  
she were using the negotiation procedure to resolve the con-  
flict, and (d) role playing the use of the negotiation proce-  
100 dure to resolve the conflict.

The negotiation procedure combined the integra-  
tive-negotiation (Johnson & F. Johnson, 1994; Pruitt, 1981)  
and the perspective-reversal procedures (Johnson, 1971).  
105 The purpose of the negotiation procedure is to find a mutu-  
ally satisfying solution to the problem; the purpose of the  
perspective-reversal procedure is to consider the conflict  
from opposing points of view. It was taught during the sec-  
ond class session; the teacher modeled the procedure, ex-  
plained it to the students, and had students practice it.

110 The six-step procedure consisted of stating (a) your de-  
sires; (b) your feelings; (c) the reasons underlying your de-  
sires and feelings; (d) your understanding of the other  
person's desires, feelings, and underlying reasons; (e) three  
115 optional agreements that maximize the benefits to both  
sides; and (f) an agreement based on mutual selection of one  
of the options (Johnson & Johnson, 1995). Students divided  
their time among studying the novel, learning the integra-

120 tive-negotiation procedure, and using the procedure daily in  
their script writing and role playing of conflicts portrayed in  
the novel.

### Dependent Measures

We measured four dependent variables. The first was  
academic achievement, measured by an achievement test  
about the novel, given to all participating students the day  
125 after training ended. The test was a paper-and-pencil meas-  
ure in which students responded to 17 open-ended questions  
about the novel. Sample questions about the major events of  
the story are as follows: "Why did Crabbe run away?"  
"What was Crabbe trying to accomplish?" "Crabbe changes  
130 as the story unfolds; describe three ways that Crabbe  
changes." We scored each question for three levels of re-  
sponding and assigned points accordingly. The levels were  
*literal* (recalling factual information), 1 point; *interpretive*  
(demonstrating comprehension through inference), 2 points;  
135 and *insightful* (synthesizing and making new connections), 3  
points.

The second dependent variable was the students' mastery  
of the negotiation procedure. We measured it by a negotia-  
tion achievement measure, the How I Manage Conflicts  
140 Measure, and assessed the students' recall of the steps in the  
negotiation procedure (Johnson, Johnson, & Dudley, 1992).  
We asked them to write out, step by step, how they would  
resolve a conflict. We based their scores on the presence in  
their responses of the six steps of the negotiation procedure;  
145 for each negotiation step included in the description, stu-  
dents received one point.

The third dependent measure was retention of the nego-  
tiation procedure. To measure retention, we readministered  
the How I Manage Conflicts Measure the following Novem-  
150 ber, 7 months after the study had ended. We scored it identi-  
cally to the negotiation achievement measure.

The fourth dependent variable was the ability to apply  
the negotiation procedure in conflicts, measured by a Con-  
flict Scenario Written Measure (Johnson, Johnson, & Dud-  
155 ley, 1992) given to all participating students both the day  
before and the day after training. This was a paper-  
and-pencil measure in which students read two brief  
scenarios, both ending in an unresolved conflict. We asked  
each student to write an essay about what he or she would do  
160 if actually in those situations. The conflicts involved (a)  
taking turns at the computer and (b) a classmate's betrayal of  
confidence. We categorized the students' strategies in two  
ways. First, by means of the Strategy Constructiveness  
Scale, we classified responses according to the strategy used  
165 to deal with the conflict. Second, we placed the strategies on  
a continuum from 0 to 12, from *most destructive* (physical  
and verbal aggression and avoidance) to *most constructive*  
(invoking norms for appropriate behavior, proposing alter-  
natives, and negotiating). The continuum was initially built  
170 by consensus among two professors and two graduate stu-  
dents in social psychology, with Deutsch (1973), Johnson  
and F. Johnson (1994), and Pruitt (1981) as their guides. The  
continuum was then field tested, refined, and extended by



Johnson, Johnson, and Dudley (1992) and Johnson, Johnson, Dudley, and Acikgoz (1994).

We arranged the strategies in a hierarchy ranging from most destructive (physical aggression) to most constructive (full negotiations) and assigned points. The strategies were physical aggression, 1 point; verbal threats, 2 points; withdrawal from issue and relationship, 3 points; requests that the teacher force the other person to concede, 4 points; commands or requests that the other person give in, 5 points; withdrawal from issue but maintaining relationship, 6 points; invocation of norms to which the other person should conform, 7 points; proposals of alternative actions for the other person, 8 points; expressing intent to negotiate ("I would negotiate"), 9 points; negotiation for mutual agreement with some steps present ("I would negotiate an agreement we both would like"), 10 points; negotiation for mutual agreement with most steps present ("I would try to understand his/her point of view and negotiate an agreement we both would like"), 11 points; and full integrative negotiation with all steps in the procedure present, 12 points.

The second set of categories for classifying conflict strategies was the conflict strategies theory (Johnson & F. Johnson, 1994; Johnson & R. Johnson, 1995), which assumes that participants in a conflict have two concerns: achieving their goal and maintaining a good relationship with the other person. When those two dimensions are combined, five strategies—forcing, withdrawing, smoothing, compromising, and negotiating—result. The strategies range on a continuum from 1 to 5. The students' responses were classified into both sets of categories by two professors and one graduate student, with an interrater reliability of .93 and .92, respectively.

#### Procedure

We conducted the study in spring 1994 in a suburban high school in Ontario, Canada. The first phase was recruitment. The director of staff development for the school district recruited two teachers to participate in the study. Both of them taught identical ninth-grade English courses at the same high school. One class met third period, and the other met fourth period. The second phase was administering pre-measures. The day before training began, students in both classes were given two Conflict Scenario Written Measures.

The third phase was conducting the training program. At the beginning of training, students in each class were randomly assigned to either an experimental or a control condition. Each student received a copy of the novel *Crabbe* by William Bell (required ninth-grade English curriculum) and a copy of *My Crabbe Notebook* (Stevahn, 1994). The notebook had three parts: (a) a schedule for reading and assignments, (b) a section for constructing conceptual webs that summarized the major events in the assigned chapter(s), and (c) a section for writing personal reactions to the events in the assigned chapter(s). In both the experimental and the control conditions, students were required each day to read a chapter or more of the novel and to make two entries in the notebook: (a) a conceptual web that summarized the major events of the assigned chapter(s) and (b) a one-page essay in

which students reflected on the events in the assigned chapter(s) and gave their personal reactions.

The study continued for eight class sessions, seven of which lasted 1 hr 15 min and one that lasted 45 min. for a total of 9 hr 30 min of instruction. During the first session, teachers read the first chapter of the novel aloud to arouse students' interest in the story.

In the control condition, the students studied the novel and completed the notebook by themselves. The teaching in this condition was characterized by traditional lectures and class discussions. Students spent 100% of their class time studying the novel and making their notebook entries. Lessons were identical for the third- and fourth-period control groups.

In the experimental condition, students studied the novel, completed the notebook, and learned the integrative-negotiation procedure through applying the procedure to the conflicts in the novel. They then learned the conflict-resolution procedure as it was integrated into the study of the novel. We drew the conflict concepts and integrative-negotiation steps from *Teaching Students To Be Peacemakers* (Johnson & Johnson, 1995). The 2nd day, students worked in pairs, identified common conflicts that teenagers face, and identified the conflicts in the first chapter of the book. The 3rd day, students learned the integrative-negotiation procedure by watching the teacher demonstrate it and then using the procedure to analyze (a) one of the conflicts in the first chapter and (b) one of the typical conflicts that teenagers face. On the 4th and 5th days, we conducted an intergroup competition on the use of negotiation steps to understand the first four chapters of the novel. During the last three sessions, the students selected a conflict from the assigned reading, described what the characters would say if they were using the integrative-negotiation procedure to resolve their conflict, and then acted out the conflict. On the 7th and 8th days, the students worked in triads rather than pairs, with one member serving as a mediator in the role playing. Lessons were identical for the third- and fourth-period experimental groups.

Instruction was conducted by a staff development consultant who is also a certified high school teacher and the two certified high school English teachers whose classes participated in the study. The three instructors, experienced in cooperative learning, had studied *Teaching Students To Be Peacemakers* (Johnson & Johnson, 1995). The instructors rotated conditions so that each instructor taught each condition an equal amount of time. Each condition was taught in a separate classroom.

The fourth phase of the study entailed administering postmeasures. The day after training ended, we gave all participating students the How I Manage Conflicts Measure, the Conflict Scenario Written Measures (identical to those administered the day before the training began), and the achievement test on the novel. Seven months later, in November of the following school year, we readministered the How I Manage Conflicts Measure to the participating students as a measure of their retention of the negotiation procedure.



Table 1  
Mean Scores on Academic Achievement

Variable	Experimental condition		Control condition		<i>t</i>	<i>df</i>	Probability
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Academic achievement	41.70	9.09	34.25	7.87	2.77	38	.009
Negotiation steps posttest	5.70	0.73	0.50	0.83	21.01	38	.001
Negotiation steps retention	4.06	2.08	2.00	1.70	2.06	31	.004

Table 2  
Recall Measure: Integrative Negotiation Steps

Negotiation step	Immediate posttest		Retention test	
	Experimental	Control	Experimental	Control
	%	%	%	%
6	85	0	31	0
5	0	0	25	12
4	15	0	13	12
3	0	0	6	6
2	0	20	13	29
1	0	10	0	18
0	0	70	12	23
Mean	5.70 (0.73)	0.50 (0.83)	4.06	2.00

Table 3  
Conflict Scenario Written Measure: Access to Computer

Strategy	Premeasure		Postmeasure	
	Experimental	Control	Experimental	Control
<b>Strategy Constructiveness Scale</b>				
Physical aggression		3(15%)	3(15%)	0
Verbal threat		1(5%)	1(5%)	4(20%)
Unsatisfactory withdrawal		0	0	0
Tell the teacher		15(75%)	15(75%)	3(15%)
Command/request		0	1(5%)	0
Satisfactory withdrawal		0	1(5%)	3(15%)
Invoke norms		1(5%)	0	1(5%)
Propose alternatives		0	1(5%)	0
Negotiation (intent expressed)		0	2(10%)	0
Negotiation (some steps)		0	1(5%)	0
Negotiation (most steps)		0	3(15%)	0
Negotiation (all steps)		0	9(45%)	0
<b>Conflict strategies theory</b>				
Forcing		20(100%)	19(95%)	3(15%)
Withdrawal		0	1(5%)	3(15%)
Smoothing		0	0	0
Compromising		0	0	2(10%)
Negotiating		0	0	15(75%)

Table 4  
Mean Scores on Constructive Strategies Scale

Status	Access to computer scenario		Betrayal scenario	
	Pretraining	Posttraining	Pretraining	Posttraining
Trained	3.60	9.70	1.95	10.30
Untrained	3.55	4.05	2.30	2.30

Note. Computer scenario: Trained/untrained pre,  $t(38) = 0.28, p < .78$ ; trained/untrained post,  $t(38) = 7.54, p < .0001$ . Secret scenario: Trained/untrained pre,  $t(38) = -1.65, p < .11$ ; trained/untrained post,  $t(38) = 10.86, p < .0001$ .



Table 5  
*Conflict Scenario Written Measure: Betrayal of Confidence*

Strategy	Premeasure		Postmeasure	
	Experimental	Control	Experimental	Control
<b>Strategy Constructiveness Scale</b>				
Physical aggression	4(20%)	1(5%)	0	3(15%)
Verbal threat	13(65%)	14(70%)	2(10%)	13(65%)
Unsatisfactory withdrawal	3(15%)	3(15%)	0	2(10%)
Tell the teacher	0	2(10%)	0	1(5%)
Command/request	0	0	0	0
Satisfactory withdrawal	0	0	0	0
Invoke norms	0	0	0	1(5%)
Propose alternatives	0	0	1(5%)	0
Negotiation (intent expressed)	0	0	0	0
Negotiation (some steps)	0	0	3(15%)	0
Negotiation (most steps)	0	0	4(20%)	0
Negotiation (all steps)	0	0	10(50%)	0
<b>Conflict strategies theory</b>				
Forcing	20(100%)	19(95%)	2(10%)	18(90%)
Withdrawal	0	1(5%)	0	1(5%)
Smoothing	0	0	1(5%)	1(5%)
Compromising	0	0	0	0
Negotiating	0	0	17(85%)	0

290 Following the postmeasures, we informed the students in the control condition about the purposes of the study and the nature of the experimental treatment and taught them the integrative-negotiation procedure in two class sessions. To illustrate the procedure, the teachers then used it periodically in class sessions.

*Experimental Check*

295 We observed instruction daily to verify the fidelity of the teaching of the experimental and control conditions and the consistency between the teaching of the third- and fourth-period experimental and control groups.

*Analysis*

300 We used unpaired *t* tests to analyze differences between the experimental and control conditions. We found no significant differences between the third- and fourth-period experimental and control groups or between boys and girls. Therefore, we combined all students in the experimental condition for analysis.

**Results**

305 We administered the achievement test the day after training ended. We conducted an unpaired *t* test on the difference between achievement test scores for students in both the experimental and the control conditions. Students in the experimental condition scored significantly higher on the achievement test than did students in the control condition,  $t(38) = 2.77, p < .009$  (see Table 1).

310 Both on the posttest,  $t(38) = 21.01, p < .0001$ , and on the retention test 7 months later,  $t(31) = 2.06, p < .004$ , students in the experimental condition knew many more steps of integrative negotiation than did the students in the control condition. On the posttest, 85% of the students in the experimental condition accurately recalled all the negotiation steps; the remaining 15% recalled four of the six steps (see

320 Table 2). In the control condition, 30% of the students listed one or two negotiation steps; the remaining 70% listed no steps. Following the posttest, the students in the control condition were taught the integrative negotiation procedure in two class sessions. On the retention test 7 months later, 75% of the students in the experimental condition remembered three or more of the steps, whereas only 30% of students in the control condition did so (see Table 2).

325 We gave all participating students two conflict scenario written measures, each describing a conflict. We then asked all students to describe how they would resolve each conflict. The first situation involved taking turns at the computer. We classified the responses into two sets of categories (Strategy Constructiveness Scale and conflict strategies theory). Before training, students in both the experimental and control conditions dealt with this conflict primarily by telling the teacher or by forcing concessions. After training, students in the experimental condition used various levels of negotiation as their major strategies for dealing with the conflict, whereas the students in the control condition continued to deal with the conflict primarily by telling the teacher or by forcing concessions. Before training, no one in the experimental or control conditions attempted to negotiate a solution to the conflict. After training, 75% of the students in the experimental condition used negotiation as their primary strategy for dealing with the conflict. No one in the control condition used negotiation (see Table 3). Before training, there was no significant difference in how students in the experimental and control conditions managed the conflict,  $t(38) = 0.28, p < .78$ , whereas after training, there was a significant increase in constructive conflict management in the experimental condition,  $t(38) = 7.54, p < .0001$  (see Table 4).

350 The second conflict situation dealt with a classmate's betrayal of confidence. Before training, students in the ex-



355 experimental and control conditions dealt with this conflict  
 primarily by threats (i.e., forcing; see Table 5). After training,  
 students in the experimental condition primarily used  
 various levels of negotiation as their major strategies for  
 360 dealing with the conflict, whereas students in the control  
 condition resorted primarily to threats (i.e., forcing). Before  
 training, no one in either the experimental or the control  
 condition attempted to negotiate a solution to the conflict;  
 after training, 85% of the students in the experimental  
 365 condition used negotiation as their primary strategy for dealing  
 with the conflict. No one in the control condition used nego-  
 tiation. Before training, there was no significant difference  
 in how students in the experimental and control conditions  
 420 managed the conflict,  $t(38) = -1.65, p < .11$ ; after training,  
 there was a significant increase in constructive conflict man-  
 agement in the experimental condition,  $t(38) = 10.86, p <$   
 .0001 (see Table 5).

### Discussion

370 In the present study, we investigated the effects on (a)  
 academic achievement, (b) mastery of the integrative nego-  
 tiation procedure, and (c) application of the procedure in  
 conflicts of the integration of conflict-resolution training into  
 an academic unit. We chose English literature because it is a  
 375 required class for all students and because conflict is inher-  
 ent in all literature and drama. Linking conflict-resolution  
 training with academic prowess is important because the  
 history of innovations in schools indicates that new pro-  
 grams are not widely adopted or long maintained unless they  
 380 increase students' academic achievement (Fullan & Stiegel-  
 bauer, 1991; Johnson, 1970, 1979). Conflict-resolution  
 training, therefore, may never be permanently integrated into  
 school life unless it is incorporated into academic subjects in  
 ways that increase academic achievement.

385 According to our results, combining conflict-resolution  
 training with the study of a novel has a significant and posi-  
 tive effect on students' academic achievement. The students  
 in the experimental group not only mastered the factual in-  
 formation in the novel but they also interpreted the informa-  
 390 tion in more insightful ways. The higher achievement is  
 even more notable because students in the control group  
 spent all their time studying the novel, whereas the experi-  
 mental group learned both the novel and the negotiation pro-  
 cedure in the same amount of time.

395 The integration of conflict-resolution training into aca-  
 demic units provides an arena in which frequent and contin-  
 ued practice of the conflict-resolution procedures can take  
 place. Conflict-resolution procedures must be reinforced  
 enough to become automatic guides for behavior in serious  
 400 and intense conflicts. Integrating conflict-resolution proce-  
 dures into academic units enables teachers to give students  
 the practice required for them to "overlearn" the con-  
 flict-resolution techniques. Repeated practice is essential to  
 405 overlearning the procedures; it thereby empowers students to  
 regulate their own behavior and to resolve interpersonal con-  
 flicts constructively. Such self-regulation is a central and  
 significant hallmark of cognitive and social development.

We also examined the extent to which students learned  
 the negotiation procedure. Of the students who received the  
 410 training, 85% demonstrated complete mastery of the nego-  
 tiation procedure. The remaining students recalled four of  
 the six steps. A literature unit (in which students learned the  
 negotiation procedure in specific situations involving the  
 characters in the novel) did, therefore, provide an effective  
 415 context for learning to negotiate. The context of the novel  
 may have given the negotiation procedure a relevance lack-  
 ing in programs that teach conflict-resolution skills in an  
 independent, nonintegrated program.

Learning to negotiate is not enough. Students must also  
 420 be able to apply their knowledge to conflicts in their own  
 lives. The pre- and posttraining comparisons between ex-  
 perimental and control participants' responses to the written  
 conflict scenario measures indicate that training had a sig-  
 nificant effect on students' ability to apply the negotiation  
 425 procedure to managing such conflicts. This finding is im-  
 portant because almost all the negotiation role playing by the  
 students during the training was related to conflicts in the  
 novel being studied. The written scenarios, however, repre-  
 sented typical conflicts that students face in school.

430 The results indicated that although students applied the  
 negotiation procedures to conflicts in the novel, they subse-  
 quently transferred their negotiation skills to more personal  
 conflicts. Thus, integrating conflict resolution into academic  
 lessons is as effective as teaching conflict resolution as a  
 435 separate subject.

Several students also transferred their learning to con-  
 440 flicts outside the classroom. One student, for example, suc-  
 cessfully negotiated a night curfew with his mother. Another  
 student reported trying to negotiate with a teacher on lunch-  
 room duty for permission to leave the cafeteria to eat out-  
 side. Incidents such as these suggest that the students  
 generalized conflict-resolution skills learned as integrated  
 components of literature.

Our findings provide new data about the effectiveness of  
 445 conflict-resolution training programs in schools: We have (a)  
 demonstrated a link between theory and practice, (b) pro-  
 vided a test of the hypotheses within a methodologically rig-  
 orous study, and (c) provided a focus on a high-school Can-  
 450 adian sample rarely studied. The negotiation procedure  
 taught was based directly on theories in the field of conflict  
 resolution. We therefore have built a bridge between training  
 in negotiation and the conflict theory of Deutsch (1973), the  
 integrative negotiation theory of Pruitt (1981), the perspec-  
 tive-taking theory of Johnson (1971), and the con-  
 455 flict-strategies theory of Johnson and F. Johnson (1994).

In addition, our study was one of the first to include a  
 control condition, randomly assign students to experimental  
 or control conditions, include trained teachers executing  
 both conditions, rotate teachers across conditions, use the  
 460 same curriculum in both conditions, and administer both  
 pretests and posttests. We used high-school students as our  
 participants and noted some evidence that research findings  
 based on samples of elementary-age children can be general-  
 465 ized to adolescents. Although participants in this study were  
 in Canada, there are indications that previous findings for



U.S. students can apply to students in other countries as well. The limitations of this study include the nature (age, ethnicity, nationality) of the sample and the limited time period of the study.

470 Teaching all students in a class to manage conflicts constructively by integrating the training into an academic unit addresses two important issues involved in the widespread adoption by schools of conflict-resolution training. First, schools have the choice of training either a cadre of students  
475 or the entire student body in conflict management. Although conflict-resolution programs vary greatly, most can be classified as either cadre or total-student-body programs. The cadre approach trains a small number of students in a school to serve as peer mediators. Training typically occurs in a 1-  
480 or 2-day workshop or a semester-long class. The total-student-body approach to conflict resolution teaches all students in a school (or class) to manage interpersonal conflicts constructively. Training typically occurs throughout the/year. This study demonstrated the efficacy of the total-  
485 student-body approach.

Second, schools have the choice of either separating conflict-resolution training from the academic curriculum or combining the two in ways that enhance both. Most conflict-resolution training programs have been add-on, stand-alone programs that teachers are expected to adopt and teach in addition to academic subjects. Conflict-resolution programs then compete for the teacher's time and commitment with existing curriculum, school, district, and legislative requirements. This situation frequently leads to teacher frustration and overload. Almost all studies on conflict-resolution training have evaluated such stand-alone, add-on programs. The history of innovation in schools indicates that stand-alone, add-on programs have not been widely adopted and have usually been quickly discontinued  
490 after other issues engage teachers' attention (Fullan & Stiegelbauer, 1991; Johnson, 1970, 1979). Successful innovations have been linked directly to students' academic achievement and integrated into the ebb and flow of classroom life.

505 The integration of conflict-resolution training into academic units thus enhances the probability that it will eventually be adopted more widely and maintained longer. In addition, it both promotes a long-term view of addressing students' ongoing problems in managing conflicts and reduces the likelihood of teacher overload and student perception of classroom activities as incoherent and disconnected. Integrating conflict-resolution training into academic units provides a meaningful context for the procedures and makes conflict-resolution training manageable within the school  
510 timetable.

Every child, adolescent, and adult must learn to manage conflicts constructively. Without training, many students may never learn to do so. Few schools have made the commitment to teach conflict resolution to all their students. Yet  
520 destructive conflicts throughout many communities indicate that classrooms must become places where destructive conflicts are prevented and students learn to manage such conflicts constructively. Ideally, all students would be trained,

and the training would be integrated into a wide variety of academic subject areas such as language arts and social studies.

## References

- Araki, C. (1990). Dispute management in schools. *Mediation Quarterly*, 8, 51-62.
- Bell, W. (1986). *Crabbe*. Toronto: Stoddart.
- Davis, A. (1986). Dispute resolution at an early age. *Negotiation Journal*, 2, 287-297.
- Deutsch, M. (1973). *Conflict resolution*. New Haven, CT: Yale University Press.
- Fullan, M., with Stiegelbauer, S. (1991). *The new meaning of educational change*. New York: Teachers College Press.
- Johnson, D. W. (1970). *Social psychology of education*. New York: Holt, Rinehart, & Winston.
- Johnson, D. W. (1971). Role reversal: A summary and review of the research. *International Journal of Group Tensions*, 1, 318-334.
- Johnson, D. W. (1979). *Educational psychology*. Englewood Cliffs, NJ: Prentice-Hall.
- Johnson, D. W., & Johnson, F. (1994). *Joining together: Group theory and group skills* (5th ed.). Boston, MA: Allyn & Bacon.
- Johnson, D. W., & Johnson, R. (1989). *Cooperation and competition: Theory and research*. Edina, MN: Interaction Book Company.
- Johnson, D. W., & Johnson, R. (1994). *Leading the cooperative school* (2nd ed.). Edina, MN: Interaction Book Company.
- Johnson, D. W., & Johnson, R. (1995). *Teaching students to be peacemakers* (3rd ed.). Edina, MN: Interaction Book Company.
- Johnson, D. W., Johnson, R., & Dudley, B. (1992). Effects of peer mediation training on elementary school students. *Mediation Quarterly*, 10, 89-99.
- Johnson, D. W., Johnson, R., Dudley, B., & Acikgoz, K. (1994). Peer mediation: Effects of conflict resolution training on elementary school students. *The Journal of Social Psychology*, 134, 803-817.
- Lam, J. (1989). *The impact of conflict resolution programs on schools: A review and synthesis of the evidence* (2nd ed.). Amherst, MA: National Association for Mediation in Education.
- Marshall, J. (1987). Mediation: A new mode of establishing order in schools. *Howard Journal*, 26, 33-46.
- Maxwell, J. (1989). Mediation in the schools: Self-regulation, self-esteem, and self-discipline. *Mediation Quarterly*, 7, 149-155.
- Moriarty, A., & McDonald, S. (1991). Mediation as a form of peer-based conflict resolution. In R. Constable, J. Flynn, & S. McDonald (Eds.), *School social work: Practice and research perspectives* (2nd ed., pp. 62-87). Chicago: Lyceum Books.
- Opatow, S. (1989, August). *The risk of violence: Peer conflicts in the lives of adolescents*. Paper presented at the annual meeting of the American Psychological Association, New Orleans.
- Posner, M. (1994). Research raises troubling questions about violence prevention programs. *The Harvard Education Letter*, 10(3), 1-4.
- Pruitt, D. (1981). *Negotiation behavior*. San Diego: Academic Press.
- Rifkin, J. (1991). *An overview of dispute resolution in educational institutions. Forum: Dispute resolution in education*. Amherst, MA: National Institute for Dispute Resolution.
- Stevahn, L. (1994). *My Crabbe notebook*. Bothell, WA: Professional Development Associates.
- Stop The Violence (1994, January). *Scholastic update*, pp. 2-6.
- Tolson, E., McDonald, S., & Moriarty, A. (1992). Peer mediation among high school students: A test of effectiveness. *Social Work in Education*, 14, 86-93.

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## Exercise for Article 12

### Factual Questions

1. What types of samples have been used in previous studies of conflict resolution?
2. The experimental condition had how many boys and how many girls? The control condition had how many boys and how many girls?