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**Teacher Assessment of Elementary School Students' Conflict Resolution Skills:**

**An action research case study**

M.A. (Ed.) Thesis

University of Ottawa

Rosanne Popp



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## Abstract

Conflict resolution skills are becoming an integral part of the Ontario elementary school curriculum. The provincial report card lists "Conflict Resolution" as one of nine Learning Skills. Unfortunately, the curricula typically used to teach conflict resolution skills do not include a means of assessing student competency. This study investigated the feasibility of an assessment instrument based on Selman's INS (interpersonal negotiation strategies) model (Selman, 1980) in a grade three classroom. The assessment instrument is in the form of a rubric. Data collection included: tape-recorded data and observation of students solving actual conflicts, an interview procedure, and a writing activity. The assessment instrument was found to be feasible for classroom use. The most viable form of data collection was the tape-recording of students solving actual conflicts. It is recommended that the rubric be refined by changing it from a chart with discrete cells, into a continuum of INS levels.

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## **Dedication**

To the grade three peacemakers who participated in this study, and from whom I learned so much.

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## CHAPTER ONE: THE PROBLEM

### Introduction

The questions addressed in this research study arose directly out of my professional practice as an elementary school teacher. For the past 7 years, I have taught conflict resolution skills to my students from grades 2 to 6. I have also implemented a school-wide program which allows students in grades 4 to 6 to practise the skills they learn in the classroom by acting as peer mediators. In this type of program, a pair of trained "peer peacemakers" is on duty each recess to help other students solve conflicts peacefully in the schoolyard. In this way, both disputants and peer mediators are able to apply skills learned in the classroom to real-life situations. Although elementary school teachers are expected to cover an increasing amount of content and skills, I feel the classroom time devoted to teaching conflict resolution skills is worthwhile. My own experiences are consistent with the research literature which discusses the many positive benefits of teaching conflict resolution skills. As a practitioner and a teacher/researcher, it has become apparent to me that what is missing from the area of conflict resolution curricula is a practical way for teachers to assess student performance. This thesis focuses on developing and reporting on the feasibility of such an assessment tool for teachers to use in the elementary school classroom.

A curriculum which includes conflict resolution skills is consistent with society's expectations for real-life skills which students can use when they leave school and undertake family and workplace responsibilities. There is considerable discussion both in school staff rooms and in the research literature (e.g., Adalbjarnardóttir & Selman, 1997; Brion-Meisels & Selman, 1984; Roy, 1993) about the expansion of the teacher's role to include both concern with social and emotional problems of students and the need to

prepare them for their place in a rapidly changing society. The teaching of conflict resolution is a part of a pedagogical movement designed to integrate academic learning with social, moral, mental health, and character education (Aðalbjarnardóttir & Selman, 1997; Davis & Porter, 1985; Lane & McWhirter, 1992; Raider, 1995; Roy, 1993). This movement includes changes at many levels of education including school organization, classroom structure, and curriculum reform (Aðalbjarnardóttir & Selman, 1997).

There are a variety of ways that teachers can and do deal with conflicts that occur among students at school. As outlined by Aðalbjarnardóttir (1993), teachers can avoid the problem (thinking that dealing with student conflicts is not their responsibility); they can decide to intervene in their role as an authority figure and solve the conflict for the children in a unilateral manner; or they can choose to solve the problem with the students. Teachers who choose the third option often discuss the problem from each participant's point of view and in this way work out a solution. Teachers using this strategy are both demonstrating concern about the physical and emotional well-being of their students and promoting their students' social-cognitive competence and skills (Aðalbjarnardóttir, 1993).

In Ontario, the Ministry of Education and Training recognized the value of conflict resolution skills in providing educators with a way to take a positive, proactive role in confronting the issue of violence in our schools. The Ontario Ministry of Education and Training's Violence-Free Schools Policy (1994) mandates schools to include violence prevention in the curriculum. The policy states that "experiential learning and the ability to apply the skills acquired at school in their daily lives in the community are essential" (p. 17). In describing the specific skills required, the policy states that students must have opportunities to "develop, practise, and reflect on

interpersonal, communication, and problem-solving skills, such as negotiation, mediation, management of conflicts, assertiveness, and the ability to cope with change or frustration" (p. 17). The teaching of conflict resolution skills provides these opportunities to students.

The purpose of this thesis is to develop and report on the feasibility of an assessment tool for teachers to use in the elementary school classroom. Recently, conflict resolution skills have been emphasized by the Ministry of Education and Training in its provincial report card released in September 1997 for use in all elementary schools in Ontario. The report card lists "conflict resolution" as one of the nine Learning Skills which must be assessed by all Ontario teachers and reported to parents (Ontario Ministry of Education and Training, 1997c). This is problematic because the conflict resolution curricula available to teachers do not include a means of assessing student behaviours. Consequently, this thesis is relevant and of potential interest to all elementary classroom teachers in Ontario.

## CHAPTER TWO: REVIEW OF THE LITERATURE

### History of Conflict Resolution in the Schools

In recent years, there has been a proliferation of programs designed to teach conflict resolution skills within the elementary school program. As Yeates and Selman (1989) point out, school provides an ideal context for the fostering of interpersonal skills. The school setting is a place where children can interact socially in a safe, nurturing environment under the guidance of adult professionals who are concerned about their well-being and development. As well, classroom teachers have both the training to teach the skills, content, and processes of conflict resolution, and the opportunity to reinforce them in meaningful situations (Schmidt, Friedman, & Marvel, 1992).

The earliest proponents of conflict resolution curricula emerged in the 1960s and '70s. During that time, peace activists and those involved in religious organizations began to produce conflict resolution curricula designed to teach students to respond to disputes by using positive, nonviolent strategies (Davis, 1986). In the 1980s, hundreds of neighbourhood justice associations opened in the United States. These centres trained community members to mediate conflict situations, and many also became involved in training teachers and students in mediation and conflict resolution skills. Also at that time, national groups such as Educators for Social Responsibility (ESR) and the National Association for Mediation in Education (NAME) were formed. By 1995, the executive director of NAME estimated that 5,000 schools in the United States had implemented either conflict resolution or peer mediation programs (Raider, 1995).

In Canada, the growth of conflict resolution programs in schools parallels the growth seen in the United States. The first conflict resolution programs

appeared in schools in the early 1970s, and by the late 1980s, the first Canadian curriculum material for elementary schools was published by the Public Education for Peace Society in British Columbia (Roy, 1993). By the early 1990s, most Ontario school communities were aware of or were involved in some aspect of conflict resolution education (Roy, 1993). Many larger, urban school boards provided trainers for students and teachers, who then trained large numbers of students in mediation skills, while other school boards hired outside consultants who work throughout the school system (Roy, 1993).

Both those social psychologists who study the phenomenon of conflict (Deutsch, 1973; Fisher & Ury, 1981), and those developmental psychologists (Kohlberg, 1969, 1984; Piaget, 1932/1965) who study the stage-like intellectual and moral development of children, have influenced the development of conflict resolution curricula. Typically, conflict resolution curricula teach students to independently use skills, such as defining the problem, brainstorming possible solutions, negotiating, and creating "win-win" solutions (Carlsson-Paige & Levin, 1992). In addition to teaching students to resolve their conflicts independently, many programs also train students to apply these skills as peer mediators.

#### **Research on Positive Outcomes of Teaching Conflict Resolution Skills**

Most research has focused on describing and measuring the benefits of teaching conflict resolution skills. Studies of elementary students have involved all age levels, from kindergarten up to grade 6. Some of these studies report on environmental outcomes. For example, several studies have indicated decreases in students' use of physical and verbal aggression to solve conflicts after having received conflict resolution training (Cassell, 1993; Maday, 1987; Stern & Van Slyck, 1986). Studies by Satchel (1992) and

Johnson, Johnson, Dudley, and Acikgoz (1992) used a decrease in referrals to the principal's office for antisocial behavior as another measure of success. Some studies also focus on the success rates of student mediators in helping peers solve conflicts. Various evaluations of peer mediation programs have reported success rates of 75-90% (Lam, 1988). Finally, parents of elementary school students in grades 2 to 6 have also reported benefits, as their children transfer skills learned at school to sibling relationships at home (Gentry & Benenson, 1992; Johnson et al., 1992; Johnson, Johnson, Dudley, Ward, & Magnuson, 1995; Lane & McWhirter, 1992). Johnson et al. (1995), for example, report that after students in grades 3 and 4 were trained at school in conflict resolution skills, the strategies they used at school and at home were different than the kind of strategies used before training. Both at school and at home, there was an increase in the use of negotiating and a decrease in the use of physical violence or verbal attacks (Johnson et al., 1995).

Other studies have reported on internal outcomes, such as improvements in student self-esteem (Deutsch, 1993; Roush & Hall, 1993; Stern & Van Slyck, 1986). Cassell (1993) noted an increase in grade 5 students' perceptions of their ability to solve conflicts nonviolently after having received training in conflict resolution skills.

Of special interest to classroom teachers is the increase of instructional time that is reported when students learn to solve conflicts independently (Cheatham County Dispute Settlement Program, 1985; Moreau, 1994). It is difficult for teachers to focus on instruction when students arrive for class upset over conflicts occurring prior to class, or when conflicts occur during class activities. In some schools, the fear of actual violence can prevent students and teachers from concentrating on meaningful learning and teaching (Appalachia Educational Laboratory, 1993). When students involved

in a conflict can solve it independently, the teacher can remain focused on teaching the rest of the class. For teachers, including myself, who have implemented such programs, there is a real sense that the time spent on these skills is more than justified by later decreases in classroom disruptions and corresponding increases in instructional time.

Research has established the benefits of conflict resolution curricula. However, further study is required to focus on the actual processes students use with training to resolve conflicts. Such research will increase our understanding of differences between more effective and less effective conflict solvers. This knowledge will help curriculum designers refine their programs and will assist teachers in fostering student growth in conflict resolution skills. In her review of conflict resolution training in schools, Raider (1995) states that "the component parts of the negotiation and mediation skill sets need to be identified for the purpose of teaching these skills to others" (p. 106). Brion-Meisels and Selman (cited in Raider, 1995) echo this by calling for a fully articulated pedagogy to diagnose and teach students who may be at varying levels of competence. Adalbjarnardóttir and Selman (1997) explain that although teachers are now required to take on an explicit responsibility for promoting their students' social, moral, and emotional growth, many teachers do not feel well prepared for this task. They point out that it is "crucial to support teachers in their efforts to foster their students' interpersonal competence and skills" (p. 409). One form of support would be to provide much-needed assessment instruments for teacher use in the classroom.

## Theoretical Framework

Robert Selman (1980) and his colleagues (Brion-Meisels & Selman, 1984; Selman & Demorest, 1984; Yeates, Schultz, & Selman, 1991) have developed a model of interpersonal negotiation strategies (INS) which has proven useful in describing how children and adolescents develop competence in solving interpersonal conflicts. This model represents a combination of two previous research traditions prevalent in social-cognitive development: the information-processing or functional approach and the structural-developmental approach (Brion-Meisels & Selman, 1984). The first tradition is based on the pioneering works of Spivack and Shure (1983). It focuses on specific social information processing skills, such as the generation of alternative strategies, the anticipation of obstacles, and the evaluation of consequences (Brion-Meisels & Selman, 1984). The value of models based on an information-processing approach is the specification of steps that determine actions in specific behavioral domains (Yeates & Selman, 1989). The second tradition, which developed out of the work of Piaget (1932/1965) and Kohlberg (1969, 1984), emphasizes the development of sequentially emerging levels or stages in the way children structure understanding (Brion-Meisels & Selman, 1984). The value of structural-developmental models is that they provide a means of describing developmental progress in social cognition (Yeates & Selman, 1989).

Both information-processing and structural-developmental models have shortcomings that the INS model has tried to address. Information-processing models do not describe the nature of the developmental change in the operations (Yeates & Selman, 1989). As well, these models have not offered a well-articulated way of sorting solutions to interpersonal conflicts into qualitatively different categories. According to information-processing

models, the more solutions generated, the better. In research based on these types of models, the basic score for competence was simply the number of relevant solutions a child generated for a given interpersonal conflict (Yeates & Selman, 1989).

Structural-developmental models were also found to have weaknesses. As mentioned above, these types of models explain social competence as a movement through a set series of developmental levels or stages. For example, Kohlberg (1969) developed six stages of moral judgment based on his research involving interviews with children and adults about moral dilemmas. This approach was also applied to other types of social cognition such as friendship, social rules, and conceptions of self (Yeates & Selman, 1989). In each model, the cognitive stages thought to underlie social-behavioral competencies were described in detail. Unfortunately, it was rarely possible to relate individual differences in progress through the stages to social behavior (Yeates & Selman, 1989). In other words, the models lacked utility in being able to relate progress through the developmental stages to useful real-life changes in personal social adjustment. Also, even though these models led to the development of school-based training programs, only a few of these were designed to facilitate increases in specified forms of adaptive behavior, and research findings reported inconsistent results (Yeates & Selman, 1989). Another major weakness is that structural theories usually have a descriptive emphasis but fail to outline the causes of growth (Yeates & Selman, 1989).

Other criticisms of structural models relate to gender differences. Claims have been made that Kohlberg's theory of the 6 stages of moral development is biased against females due to the fact that it is empirically based on a 20-year study which used only boys as subjects (Gilligan, 1977, 1993). Gilligan notes

that when women are assessed according to Kohlberg's framework, they tend to be classified in stage 3 as opposed to men who tend to score at a higher stage (Gilligan, 1977; Gilligan, 1993). Another criticism is that Kohlberg's framework uses hypothetical moral dilemmas, and is less applicable to real-life judgments (Gilligan, 1977; Murphy & Gilligan, 1980). When Gilligan looked at the responses of female adolescents and young women to moral problems, she found that some of them defined and resolved moral problems in a way that differed from the descriptions of moral problem-solving in established theories of moral development. This made it difficult to assess these responses using traditional measures. These results occurred especially when female participants were describing their own experiences of moral conflict and choice as opposed to when they were responding to hypothetical dilemmas (Gilligan & Attanucci, 1988).

Based on her analysis of women's moral judgments, Gilligan identified an alternative approach to moral decision-making which was defined as the "care perspective" (Gilligan & Attanucci, 1988). In this perspective, the degree of connection and the costs of detachment are examined in deciding what actions constitute care, or are more caring. Previous theories, such as Kohlberg's, were based on a justice perspective. Such a perspective is concerned with problems of inequality and oppression and is based on an ideal of equal and reciprocal rights for individuals. In contrast, a care perspective is concerned with problems of detachment and abandonment and is based on an ideal of attention and response to need (Gilligan & Attanucci, 1988). These two perspectives result in two different moral injunctions: for justice, not to treat others unfairly; and for care, not to turn away from somebody in need (Gilligan & Attanucci, 1988). Gilligan and Attanucci's empirical findings indicate that concerns about justice and care are both

represented in people's thinking about moral dilemmas, but people tend to focus on one set of concerns and minimally represent the other. They also found an association between moral orientation and gender. Men and women use both orientations, but there is more of a focus on the care perspective in women's responses, and more of a focus on the justice perspective in men's responses (Gilligan & Attanucci, 1988).

The gender differences described above have also been demonstrated in studies involving children (Gilligan, Longdale, & Lyons, 1982; Johnson, 1985). Johnson (1985), asked children aged 11-15 to state and solve the problem posed by 2 of Aesop's fables. Findings indicated that boys more often saw problems from a justice perspective and preferred justice solutions and girls more often saw problems from a care perspective and preferred care solutions (Johnson, 1985).

The INS model integrates both the information-processing and the structural-development approaches in an attempt to combine the strengths of both, and also address the shortcomings of each (Yeates & Selman, 1989). The INS model is concerned with the specific behavioral domain of interpersonal negotiation strategies. Interpersonal negotiation strategies are defined as: "the means by which an individual tries to meet personal needs via interaction with another individual when both participants' needs are in conflict" (Yeates & Selman, 1989, pp. 75-76).

From an information-processing perspective, the model outlines four steps which individuals use when resolving interpersonal conflicts. These steps are: defining the problem, generating alternative strategies, selecting and implementing a specific strategy, and evaluating outcomes (Yeates, Schultz, & Selman, 1991). The model also has a structural-development aspect because Selman (1980) has described the ability to take the perspective

of another person (which is central to the ability to negotiate solutions to interpersonal conflicts) as a developmental achievement passing through a series of ordered levels. Each level corresponds roughly to traditional structural-developmental models (Brion-Meisels & Selman, 1984).

Selman and Byrne (1974) refined earlier work in the area of conceptual perspective-taking (Piaget & Inhelder, 1966/1969) by describing developmental transitions in conceptual perspective-taking. Their work suggested that, with maturation, one moves from being able to appreciate another person's perspective to being able to self-reflect about one's own role, and finally, to being able to take an objective third-person point of view on a situation (Selman & Byrne, 1974).

The four developmental levels of negotiating solutions to conflicts identified in the INS model are: level 0-impulsive, level 1-unilateral, level 2-reciprocal, and level 3-collaborative (see Appendix A). Strategies at the first level (level 0) tend to be egocentric with no consideration of perspective expressed (Yeates et al., 1991). Strategies at level 1 are subjective and unilateral because only one participant's perspective is expressed. Such strategies focus on attempts either to control or to appease the other participant in the conflict (Yeates et al., 1991). At level 2, strategies are self-reflective and reciprocal: both participants' perspectives are expressed but this is done separately rather than simultaneously. Strategies at this level include trades, exchanges, and deals (Yeates et al., 1991). Strategies at the final level, level 3, rely on third-person perspective-taking skills and demonstrate attempts to collaboratively develop mutually satisfying solutions (Yeates et al., 1991).

The INS model integrates the information-processing and structural-development approaches by describing how behavior on each of the four

functional steps can be described by one of the four developmental levels described above (see Appendix B). For example, solutions can be generated in a physical, impulsive way with no real justification (level 0); in a way which takes into account only one person's perspective (level 1); in a way that takes into account shared concerns, but with the effects on one person dominating (level 2); or in a collaborative way, with positive effects for both people and the maintenance of a positive relationship (level 3).

The developmental nature of interpersonal negotiation strategies can be distinguished on another dimension, which represents a measure of individual-difference variability. This dimension is a continuum between "self-transforming" strategies and "other-transforming" strategies (Yeates & Selman, 1989). Strategies vary across this continuum based on the relative priority given to achieving one's own needs as opposed to the needs of another person. According to the INS model, strategies at the same developmental level (i.e., that reflect similar levels of developmental sophistication in coordinating perspectives) can appear very different in terms of observable action because they reflect opposite interpersonal orientations.

Although "bullying" and "giving in" are very different styles (and express themselves in very different behaviors), they actually represent very similar levels of development in perspective coordination (Yeates & Selman, 1989). Both would be classified as level 1-unilateral behaviors. When classified on the dimension of interpersonal orientation however, the two strategies are seen as very different. "Giving in" would be seen as a self-transforming strategy, since it involves changing one's own position, whereas "bullying" would be classified as an other-transforming strategy, since it involves inducing another to change his or her position (Yeates & Selman, 1989).

As children progress to higher INS levels, the use of strategies based on the two interpersonal orientations tends to become more balanced (Selman & Glidden, 1987). Some children, however, will continue to overuse one of the two styles (Selman & Glidden, 1987). A child who does not develop higher level INS strategies with age, and who expresses these strategies in an other-controlling style, would probably be labeled a troublemaker, a student with behavior problems, or a bully (Selman & Glidden, 1987). Alternately, a child using similar lower level strategies but who persistently uses a self-transforming style might be labeled a victim, or described as someone who is frequently "picked on" at school (Selman & Glidden, 1987).

The INS model also avoids the problem of focusing on only one perspective of moral decision-making, the justice perspective, while ignoring another perspective, the care perspective (Gilligan, 1977; Gilligan & Attanucci, 1988). As discussed earlier, the care perspective involves a concern with human relationships and with the ability to demonstrate concern (Gilligan, 1977, 1993). One can see evidence of the care perspective in the INS model in the description of level 3 or collaborative strategies (these are the highest level of interpersonal negotiations strategies). The description of people operating at level 3 indicates that they "demonstrate concern for a relationship's continuity, and the understanding that solutions to immediate problems have a bearing in that regard" (Schultz, Yeates, & Selman, 1989, p. 8).

In summing up the strengths of the INS model, Yeates and Selman (1989) point out that it: (a) specifies a particular behavioral domain (interpersonal negotiation strategies) in which there is evidence that success is linked to overall social adaptation; (b) lays out the social information-processing steps that mediate actions within this domain; (c) describes a developmental

progression through which each step proceeds; and (d) describes an important stylistic dimension of variability (interpersonal orientation).

### **Empirical Studies Based on the INS Model**

The INS model was originally applied in clinical psychological settings and has not been applied outside clinical and research settings, in elementary classrooms. Selman and Demorest (1984) tested the model's effectiveness as a clinical tool which could assess the negotiation skills of children with socioemotional and interpersonal difficulties who were involved in clinical pair therapy. This study showed that by using the model to assess children's current level of functioning, the clinician could then design interventions to help the children develop more appropriate strategies (Selman & Demorest, 1984).

Another study (Selman, Beardslee, Schultz, Krupa, & Podorefsky, 1986) examined the relationship between INS level and the variables of age, gender, and IQ. In this study, researchers presented 90 adolescents aged 11-19 with hypothetical interpersonal dilemmas and then assessed the various negotiation strategies they suggested using to resolve them. As the model would suggest, INS level was positively correlated with age. Findings regarding IQ indicated that, regardless of age, adolescents with high IQs negotiate with others on a more mature level than do adolescents with low IQ. As well, differences were found between sexes, with girls scoring higher than boys.

A later study (Aðalbjarnardóttir & Edelstein, 1989) looked at similar questions to the study above, but used a sample of elementary school children rather than adolescents. In this study, 60 elementary students between the ages of 7 and 12 were interviewed individually about short dilemmas which involved conflicting opinions in the classroom. Dilemmas were designed to

explore whether children's communicative understanding and action resolutions differed with respect to the type of argument and the person with whom they were arguing. In the interviews, children were asked to define the problem in the dilemma, identify a good way for the student to react, and to justify their choice of action. Children were also asked to reflect on the feelings of the teacher and the student as described in the hypothetical dilemmas.

Findings indicate that as elementary-school-age children grow older they exhibit a movement from unilateral forms of communicative action to reciprocal forms, with some traces of collaborative forms evident in the way they define the problem, justify their action, and evaluate participants' feelings (Aðalbjarnardóttir & Edelstein, 1989). Most 7-8-year-olds tend to be capable of unilateral thinking, most 8-11-year-olds are likely capable of exhibiting reciprocal thinking, and some 11-12-year-olds will be able to show mutual understanding of conflictual perspectives (Aðalbjarnardóttir & Edelstein, 1989).

The researchers suggest that their findings have a number of implications for teachers. First, they suggest that teachers can use the four functional steps as a guide when helping students deal with hypothetical and real-life conflicts (Aðalbjarnardóttir & Edelstein, 1989). As well, the model gives teachers a framework to guide them in listening to children's contributions, observing their ways of reasoning, and assessing how they act, think, and feel both in discussions about interpersonal conflicts and in their own daily interactions (Aðalbjarnardóttir & Edelstein, 1989).

A study by Yeates et al. (1991) was designed to validate the INS model. Like previous studies, the researchers assessed participants' levels of INS thought using an interview procedure. In this study, students were given

four hypothetical situations and then asked seven standard questions with probes, each designed to provide multiple measures of each of the proposed INS problem-solving steps. Then, the students' teachers completed an Interpersonal Negotiation Strategy Rating Scale. This instrument presented descriptions of the four INS levels and examples of strategies that teachers might see students at each level exhibit. Teachers were asked to decide on the developmental level that best described the predominant level of the child. The study's findings validated the INS model by providing evidence of a general trajectory that children follow in the development of interpersonal negotiation strategies. The study's results showed reliable age differences on measures of INS development which were correlated within age groups. As well, INS thought was significantly correlated with INS action.

Of all the studies done concerning the INS model, one of the most relevant for teachers is a 1993 Icelandic study involving elementary school children (Aðalbjarnardóttir, 1993). The study was designed to explore whether training can promote the social-cognitive competence and skills of students. Teachers in the intervention group were introduced to theories of social cognitive development (emphasizing Selman's theory of interpersonal negotiation strategies) and also to teaching strategies that seem to be effective in promoting children's social competence and skills in conflict resolution. They were also taught a questioning method consistent with the INS model, which required students to define the problem, express the feelings of the participants, generate alternative ways of solving the problem, select the best way, and evaluate the outcome. Thus, students were taught to approach and solve conflicts in a specific way. Teachers were trained in a course that consisted of 20 group meetings held over the course of a year. At these meetings, teachers discussed practical and theoretical issues, shared classroom

experiences, and planned instruction. In addition, they were observed and given feedback on their teaching techniques during the implementation phase.

Teachers in the intervention group ran an organized program with their students lasting 4 weeks in the fall and 10 weeks (with breaks) in the spring. This program focused on sociomoral topics by using the themes of friendship, social interaction during recess, and social interaction in the classroom. Curriculum strategies consisted of short interpersonal dilemmas with additional reading material from books, poems, proverbs, and sayings; the use of real-life situations (as content for discussion and problem-solving); art activities, story and poetry-writing; and role-playing of social conflicts. Although all teachers dealt with the same main topics, they did not necessarily deal with them in the same way since, according to the author, specific topics appeal differently to children based on their age, competence, and interest.

A pretest-posttest type of design was used in which all children in the study were interviewed and observed in the beginning, and then again at the end of the school year (before and after implementation). For the interview, three trained interviewers were used to assess the developmental level of the INS thought. During the interview, the interviewer orally presented four brief dilemmas to each child. The dilemmas involved both conflicts with teachers and conflicts with peers. After each dilemma was read to the child, the interviewer asked a series of eight standard questions followed by probes. The probes encouraged the child to work through each of the five steps of the conflict resolution process. Interviews were audiotaped and transcribed, and all coding was made from transcribed interviews.

Observations were used to assess the developmental level of INS action. Each observer spent a week at a time (fall and spring) in each of the eight classes observing the negotiation strategies of the children who participated in the study. The observers followed each child for at least 2 hours during the week and wrote down every social behavior the child engaged in when negotiating with either the teacher or with classmates. Each observer was in the same classroom for both observation periods (fall and spring).

A scoring manual was developed to assess both INS thought and INS action. This manual was based on pilot data from a separate sample and other scoring manuals. For each of the dilemmas presented in the interviews, the children received a separate and independent level score (0-3) for responses to each of eight standard questions. Scores that corresponded to each of the four separate steps were averaged to give a score for each step. Scores were then averaged across teacher and student dilemmas. An overall INS level score was finally computed for each child by averaging the level scores across the four steps for both the teacher and the classmate dilemmas. This overall INS construct is based on the highly significant correlations among the problem-solving steps. In scoring the observation results, each of the communicative situations observed in the classrooms was classified according to developmental level (0-3). Separate scores were generated for conflicts with peers and conflicts with teachers.

The author focused on three areas in analyzing the results of the intervention program: (a) change in INS thought level by program and interactions of program with age, gender and role; (b) change in INS real-life action as a function of the independent variables; and (c) relationship between change in INS thought level and INS action level. With respect to change in INS thought level, children in the intervention group improved

more in their INS level of thought than did control group children (on scenarios that involved negotiating both with a classmate and with a teacher). No significant interactions were seen between program and the other independent variables of age, gender and role. According to the author, this finding implies that the ability of the children in the intervention program to solve hypothetical classroom conflicts by considering both sides' perspectives improved more than the ability of those in the regular program.

With respect to INS observed actions, the intervention group improved more than the control group when negotiating with a classmate. For example, intervention group children did more arguing than fighting, asked more questions and gave fewer commands, and had more discussions and fewer quarrels. However, there was practically no difference between control and intervention groups in negotiating with a teacher. The author suggested that it is easier for students to try out developing negotiation strategies with someone viewed as an equal than with someone seen as an authority figure.

There was also a relationship (even after controlling for age and gender) between change in INS level of thought and change in INS level of action, with overall INS thought level and action level scores significantly correlated both at pretest and posttest. In addition, the author found that when pretest differences in INS action level, age, and gender were controlled, change in INS thought level accurately predicted change in INS action level. This finding is promising for educational and clinical work as it suggests the possible extension of reasoning processes to real-life situations.

### **Rationale and Research Questions**

#### **Rationale**

Teachers typically deliver conflict resolution curricula without the extensive support given to the teachers in Aðalbjarnardóttir's 1993 study (e.g.,

20 weekly training sessions with the researchers, feedback from the researchers concerning their instructional techniques, etc.). Instead, classroom teachers normally teach a series of lessons on their own without these other support systems available. There are, however, a number of curricula widely used in North America which utilize strategies and instructional activities that are consistent with those used in Aðalbjarnardóttir's study. Three such programs are: Learning the Skills of Peacemaking (Drew, 1987); Conflict Resolution: An Elementary School Curriculum for Grades K-6 (Sadalla, Holmberg, & Halligan, 1990); and Creative Conflict Solving for Kids: Grades 3-4 (Schmidt & Friedman, 1991). Teaching strategies such as the use of stories, fables, poetry, role-playing, and discussion and problem-solving of real conflicts are some of the activities used, which are similar to those described in Aðalbjarnardóttir's intervention. Also, these programs provide a step-like process for students to use when solving conflicts that is consistent with the 5-step process used in the Aðalbjarnardóttir intervention. Unfortunately, the curricula typically used by North American teachers, such as those programs described above, do not include a means of assessing student competency in conflict resolution skills.

Several researchers have discussed the possible use of the INS model for student assessment, but to date there has not been an application of the model in a regular school setting. However, Brion-Meisels and Selman (1984) applied the model in a special education school setting with young adolescents who exhibited significant psycho-social problems beyond the norm. These authors describe the potential usefulness of the model in educational settings and its implications for teacher assessment, instruction, and evaluation. They suggest that the developmental framework can be used

as an assessment tool to describe the levels of interpersonal negotiation strategies students use when they engage in informal activities such as group discussions, classroom meetings, discipline sessions, and peer interactions. The assessment data interpreted within this model could then provide the teacher with guidelines for instruction. In this way educators can set reasonable educational goals for students and design appropriate learning opportunities, thus avoiding student failure and frustration (Brion-Meisels & Selman, 1984). The researchers also discuss the relevance of the model to the process of evaluation. They suggest that the developmental analysis of students' skills could allow educators to concretely describe gains and to communicate this information to parents (Brion-Meisels & Selman, 1984). Aðalbjarnardóttir and Edelstein (1989) also recommend the use of the model as an assessment tool to explore the level of negotiation skills of elementary school students.

There have been assessment tools developed based on the INS model, but thus far these have been designed for research and clinical use. As mentioned earlier, Aðalbjarnardóttir (1993) developed an interview procedure and a scoring manual to measure students' levels of INS thought. The scoring manual was also used to analyze level of INS action, based on data collected by trained observers who conducted detailed observations on each student in both the schoolyard and the classroom. This particular manual has not been translated into English, and it is currently available only in Icelandic.

A similar interview protocol has been used by researchers in a clinical context (Yeates & Selman, 1989) to assess the level of INS of students who were then brought together in pairs for 10 weekly, hour-long sessions. Each pair was assigned to one of two adult trainers who could then tailor an

intervention program (designed to foster growth in interpersonal skills) to each child's needs. This individualized program was based on the results of the initial assessment.

Yeates and Selman (1989) acknowledge that in a classroom situation such a finely tuned, individualized method of assessment would not be possible. The interview procedure, for example, involves one-on-one interviews in which four interpersonal dilemmas are presented, each followed by eight interview questions and follow-up probes. Interviews are recorded, transcribed, and scored. In a class of 25-30 students, with one teacher, this would not be a feasible addition to an already crowded curriculum. These researchers do, however, feel that the INS model is still pedagogically useful in a classroom context (Yeates & Selman, 1989).

### **Research Questions**

The present study uses the INS model as the basis on which to develop an assessment tool that teachers could use in the classroom. This assessment tool is in the form of a rubric. The principal research question addressed was: How feasible is an adapted version of the INS assessment instrument for classroom assessment of conflict resolution skills? There were two secondary questions. The first of these was: Which of four contexts-writing activity, tape-recorded conflict-solving sessions, individual interviews, and data from situations in which the teacher is required to intervene in a conflict-was more viable for data collection? The second secondary question asked was: What refinements would improve the use of the adapted assessment instrument?

To investigate the feasibility of the assessment tool for classroom assessment of conflict resolution skills it is necessary to define what is meant by feasibility. For the purposes of this study, feasibility can actually be broken up into several components. The first component is relevance or utility,

meaning that the information provided must be relevant to the decisions being made or that it must serve practical needs (Guba & Stufflebeam, 1970; Nevo, 1983). In the case of this particular assessment tool, the standard of relevance or utility will be met if the assessment tool provides useful data that can be used to help teachers complete the report card section on Conflict Resolution and communicate to parents how the child is performing.

A second component of feasibility is scope, which means that the information provided must relate to all aspects of the decision (Guba & Stufflebeam, 1970). In the case of this assessment tool, one would be looking to see that information is provided on all the steps involved in the conflict resolution process. A third component can be described as timeliness, which means that the information provided must be obtained in time to be of use to the decision-maker (Guba & Stufflebeam, 1970). In this study, one would look to see if it is possible to use the assessment instrument within the time constraints currently faced by teachers. In other words, one would like to find out if it can be used without adding a substantial amount of time to the teacher's after-hours workload. One would also like to know if it requires the use of substantial amounts of classtime, recess time, or lunchtime periods in order to complete the assessments. Another way to describe this is by asking if it is a realistic form of assessment (Nevo, 1983). Unfortunately, even if the other criteria related to feasibility are met, no teacher will ever use the tool if it can not be implemented within a realistic time frame.

If assessment tools and strategies based on the INS model could be used by classroom teachers along with the curricula they currently teach, it could assist them with instructional, assessment, and reporting tasks. The INS model could provide information about students' current levels of competency in order to allow teachers to meet individual student needs. The

model could also be used to increase precision of instruction by providing the teacher with a conception of successive levels of performance.

Above all, the new Ontario standard provincial report card requires that every elementary teacher in Ontario be accountable for reporting achievement on "Conflict Resolution". However, teachers lack a means of describing or measuring student growth and achievement. An assessment instrument based on the INS model would help teachers to provide concrete, accurate information to parents about their child's progress.

## CHAPTER THREE: METHODOLOGY

### Blended Methodology

This study can be described as having a blended methodology since it combines case study research with action research. The need for an integrated approach to research has been identified in the literature (Johnson, 1991; Posnac & Carey, 1997), and the combining of approaches is supported as a means to substantiate analyses and epistemological stances (Miles & Huberman, 1994; Patton, 1990; Rossman & Wilson, 1985).

### Action Research

The phrase "action research" was coined by Kurt Lewin in about 1944. A commonly-accepted definition of action research is that it is a form of research carried out by practitioners into their own practice (Kemmis, 1988). In the case of education, it refers to research (such as the present study) that is carried out by teachers in their own classrooms (Elliot, 1988; Kemmis, 1988; Foshay, 1998). According to Elliot (1991), the main purpose of action research is the improvement of practice, rather than the production of knowledge.

Lewin's early action research work was concerned with changes of attitude and conduct in several areas of social concern (e.g., prejudice and intergroup relations immediately after W.W.II). His ideas were then carried over into education when he, his co-workers and his students began working with educators on issues of curriculum development and teacher professional development. After an active decade, action research went into decline in the late 1950's (Kemmis, 1988). The rift between practitioners and researchers started to grow as academic researchers in the social sciences began to get significant financial support from public funding bodies. As this happened,

they began to distinguish their work and status from that of the practitioner in the field (Kemmis, 1988).

One development related to the resurgence of contemporary interest in action research was the Ford Teaching Project in the UK (1973-76) under the leadership of John Elliot and Clem Adelman. This project involved teachers' collaborative action research into their own practices. Other factors accounting for recent growth in action research in Australia, Europe and North America include: demand from an increasingly professionalized teacher force for a research role; perception among practitioners about the irrelevance of much contemporary research; the rise of new methods of educational research and evaluation (such as responsive evaluation, case study research, ethnography, etc.); the accountability movement; and the growing solidarity of the teaching profession in response to public criticism (Kemmis, 1988).

The action research movement directly addresses the problem of the failure of research in the social sciences to bring about actual improvements in practice (Somekh, 1995). Rather than a two-stage process in which research is carried out by researchers and then the knowledge generated from research is applied by practitioners, the two processes of research and action are integrated. Action research starts from practitioners' practical questions arising from concerns in their everyday work (Somekh, 1995). In explaining the strengths of teacher research, Cochran-Smith and Lytle (1990, p. 2) state that: "What is missing from the knowledge base for teaching . . . are the voices of the teachers themselves, the questions teachers ask, and the interpretive frames teachers use to understand and improve their own classroom practices."

### Case Study

Case study research can be based on single or multiple cases. This action research was undertaken as a single case study based on one classroom. There are several characteristics of case study design that make it an appropriate methodology for this study. First, a case study allows one to study people engaged in real-life activities in their natural surroundings (Orum, Feagin, & Sjoberg, 1991). Case study methods often include close observation in order to examine the complex interaction of variables in a natural setting. Such dynamic interactions in educational settings are often difficult to capture through a more traditional experimental approach to research, in which a variable of interest is manipulated while others are held constant (Biddle & Anderson, 1986; Stenhouse, 1988). In the present study, the contemporary real-life problem of teacher assessment of conflict resolution was studied in the relevant context of the classroom. Contextual conditions are critical because the study was designed to investigate the feasibility and practicality of a new assessment tool in that context.

A second reason for choosing a case study design is to address those situations in which there are many more variables of interest than data points (Yin, 1994). Since this study focused on a small group of students in one classroom (which is not necessarily representative of all classrooms), multiple data points for statistical analysis were not available, as they would be in the case of an experimental research design. A case study design was thus more appropriate.

A third characteristic of case study design is that it can include an analysis of the dimensions of time and history in the study of social phenomena (Orum et al., 1991). Time is relevant to the present study because it is such a

critical factor for teachers. Teachers work with increasingly large numbers of students under very specific time constraints. It is necessary to take this factor into account in describing the feasibility or practicality of a new assessment instrument. As both investigator and classroom teacher, I was with the student participants in this inquiry during the day for the entire study and was thus in a position to follow the implementation over time.

A fourth relevant characteristic of case study design is that it provides data from multiple sources, thus permitting a more holistic study of complex social action (Orum et al., 1991). It is this holistic focus that makes the case study useful in studying organizations and how daily routines affect the work of an organization (Orum et al., 1991). The classroom can be seen as a subunit within the larger organization of a school. Clearly, the daily routines of the classroom and the school of which it is a part have an effect on all aspects of teaching and learning, including the focus of the present study-teacher assessment of student growth.

Information that is obtained from multiple sources provides what is referred to as converging lines of inquiry or triangulation (Yin, 1994). Triangulation can address the problems of validity because multiple sources of evidence essentially provide multiple measures of the same phenomenon (Yin, 1994). Denzin (1988) points out that all methods of data collection have some kind of limitation (e.g., surveys and experiments are limited in their ability to realistically enter the subject's life world, while observation is limited by obtrusiveness). Interpretations built on triangulation are therefore seen as stronger than those based on the more restricted framework of a single method (Denzin, 1988). In the present study, four sources of information about growth in negotiation strategies were analyzed: audio tapes of students solving real conflicts; data from situations in which the

teacher is required to intervene in a conflict; data from a modified INS interview procedure; and evidence obtained from a student writing activity.

### **Development of the Assessment Instrument**

Teachers typically use a wide variety of assessment tools in the classroom including pencil-and-paper tests, observational checklists, and rubrics. They also evaluate skills across a variety of contexts. For example, spelling ability can be assessed not only by performance on weekly spelling quizzes, but also by analyzing a student's use of appropriate spelling conventions in daily written assignments, journal-writing, and story-writing. Using a variety of assessment instruments and contexts acknowledges that not all students will perform to the best of their abilities in every context or with every assessment instrument (Egeland, 1997). It would be useful to adapt a type of tool teachers are currently using in other subject areas to the assessment of conflict resolution skills. This study used the INS model to provide a useful conceptual framework for the development of such an instrument.

Student growth in INS can be examined in three domains: action, thought, and feelings. Level of action, as was examined in Aðalbjarnardóttir's 1993 study, is critical, since the goal of teaching these skills is to foster transfer to real-life conflict situations. This sort of transfer requires both practice and the experience of success when new skills are used (Selman & Glidden, 1987). Numerous researchers have stressed the usefulness of assessing children's social understanding under natural conditions (e.g., Bronfenbrenner, 1977; Damon, 1977; Selman, Schorin, Stone, & Phelps, 1983). Selman et. al (1983) acknowledge that for less verbal students, a natural context may be more conducive to the expression of social understanding than the more artificial interview situation. These authors suggest that such children may become bored by interviews, have trouble reflecting on their understandings, become

uncomfortable interacting with interviewers, or speak more impulsively than usual (Selman, 1980; Selman et. al, 1983).

In Aðalbjarnardóttir's 1993 study, a team of trained observers followed each student individually for at least 2 hours, recording, analyzing, and scoring every interaction the child had with peers and adults. It would not, however, be feasible for a classroom teacher to undertake such an assessment. Currently, some teachers who teach conflict resolution provide opportunities within the classroom for students to solve real conflicts that occur. Often a quiet corner is set up in the classroom where students can go to use the steps they have been taught to solve conflicts. In my own classroom, I have often witnessed students who are angry and upset (and unable to work) go to our conflict resolution centre, talk quietly for 3 or 4 minutes, and then come back calmly with a solution. What I don't know is what exactly is happening during that conflict resolution process. In this study, students were invited to tape record their interactions at the peacemaking centre in order that I might indirectly "observe" such sessions. Since I am generally teaching while this happens, a tape recording allowed me to analyze at a later time what students did in solving the conflict. A scoring rubric developed for this study and based on the INS model was used to analyze student performance (see Appendix C).

Teachers are also frequently directly involved in helping students solve conflicts. Sometimes students are not able to solve a conflict independently at the conflict resolution centre and a teacher needs to intervene. Other conflicts (such as those involving physical aggression) require teacher involvement because of the seriousness of the conflict. The rubric described above was also used by teachers during/after such interventions, thereby turning the situation into an assessment opportunity.

In spite of the limitations of the interview situation for less verbal students, it is still useful for classroom teachers to have a tool to use to probe a child's level of INS thought. One reason to use an interview is that it may not always be possible for every student to have a chance to solve a real-life conflict during the time the teacher wishes to assess student growth. One would anticipate that for many children, the interview situation would elicit the child's highest level of understanding by eliminating those effects of a natural environment (such as noise, emotional stress, or time constraints) that might inhibit or mask understanding (Selman et. al, 1983). Except in the case of less verbal students described earlier, the interview may demonstrate growth in understanding that is not yet evident in behavior. The present study modified the INS interview protocol (Schultz et al., 1989), which was designed for clinical and research purposes, for use by elementary classroom teachers to assess the INS level of students (see Appendixes D and E).

In addition to INS action and INS thought, this study also looked at a third domain, the level of feelings. When one examines the problem-solving step of "defining the problem", research shows that students who generate higher level definitions of interpersonal problems show an increased emphasis on the feelings and thoughts of the participants as opposed to just a reliance on descriptions of their physical characteristics and overt behavior (Yeates & Selman, 1989). While this may be evident in an interview situation, it is possible that other methods might better capture this type of data.

A writing activity was used as a source of data on students' development of INS feelings. Students may find it easier to respond to teacher inquiries through the use of a written activity as opposed to an interview. When writing, a student is more "removed" from the teacher than in an interview situation. This data collection technique is therefore one way to lessen the

"right-answer problem" which results when children attempt to respond in a way that they hope will please someone they see as an authority figure (Hatch, 1988 as cited in Swadener, 1988).

This case study thus reports on the implementation of an assessment instrument which can be used by classroom teachers in each of the above three contexts (students solving real-life conflicts, interview of students about hypothetical conflicts, and a writing activity). The assessment instrument was in the form of a rubric or scoring guide. I developed this rubric by taking information from the scoring guide from The Interpersonal Negotiation Strategies Interview Manual (Schultz et al., 1989) and reformulating it into a rubric (see Appendix C).

Teachers frequently use rubrics to assess performance tests in other skill areas such as writing, mathematics problem-solving, and science (Goodrich, 1996). A performance test is one which presents students with some demanding task in order to allow the teacher to assess a significant skill in the curriculum (Popham, 1997). Ideally, a performance test involves an "authentic" or real-life task, such as solving an interpersonal conflict (Popham, 1997). Rubrics allow teachers to assess the entire process, rather than just an end product of a performance test (Luft, 1997).

A number of characteristics make the use of rubrics attractive to teachers. Rubrics define quality performances for both teachers and students; they allow teachers to accommodate heterogeneous classes (since the work of both gifted and learning disabled students can be reflected in the various gradations of a rubric); and they reduce the amount of time teachers spend evaluating work because, rather than writing long descriptions on each student's performance, the teacher can use the descriptors already created in the rubric to communicate with students and parents (Goodrich, 1996).

Perhaps most important, since rubrics provide teachers with information about a student's strengths and weaknesses, and suggest ways to plan instruction to best fit a student's needs, they are embedded directly into the instructional process (Luft, 1997).

A rubric contains the following three essential features: evaluative criteria, quality definitions, and a scoring strategy (Popham, 1997). In this case, the evaluative criteria are represented by the four functional steps described by the INS model: defining the problem, generating alternative strategies, selecting and implementing a strategy, and evaluating outcomes and feelings (Yeates et al., 1991).

Quality definitions describe the way that the teacher can judge qualitative differences in student responses – a rubric provides a separate description for each qualitative level. In this case, there are four quality definitions based on the four levels of performance defined by the INS model (impulsive, unilateral, reciprocal, and collaborative). Whether a student's performance is acceptable or not will depend on both the level demonstrated and the student's age (for example, while level 2 performance might be acceptable for an 8-year-old student, a 12-year-old student would be expected to exhibit level 3 performance).

The last component of the rubric, the scoring strategy, can be either analytic or holistic (Popham, 1997). A holistic strategy involves taking all the evaluative criteria into consideration but aggregating them to create a single, overall judgment of quality. An analytic strategy involves rendering criteria by criterion-by-criterion scores that later may or may not be aggregated into an overall score. The rubric created for this study provided a level score for each of the evaluative criteria. Since the new provincial report card asks teachers to rate overall conflict resolution skills as excellent, good, satisfactory, or

needs improvement, it is expected that teachers using this rubric would make a holistic judgment based on the data provided by the rubric.

Since the research question concerns the feasibility of the assessment tool for teacher use, another data source was a journal I retained as the teacher/researcher. This journal included details of observations made when intervening in student conflicts and information concerning implementation and feasibility of the various assessment approaches being used. This data source also provided a record of my reflections on potential problems and solutions I came across in my role as practitioner in the classroom.

### Participants

The grade 3 students at an elementary school in the Eastern Ontario Catholic District School Board (all of whom were in the researcher's class) were invited to be participants in this study. Out of a total of 28 students in the class, 23 students (82%) for whom parental consent was received participated in the study. The students in this study were receiving a bilingual program, spending half of the day with the researcher for the English component of the program and half of the day with another teacher for the French component of the program. Of the 23 participants, 15 (65%) speak English as their first language and 8 (35%) speak French as their first language.

Language skills of the participants are of interest, since data collection involves both oral language (at the peacemaking centre and in the interview procedure) and written language (in the writing activity). All of the students who speak French as their first language also communicate well orally in English, and would be considered to be bilingual. Of these 8 students, 5 have significant difficulty with written communication skills in English and would be considered to be performing below grade level in this area. In addition, 3

of the students who speak English as a first language also have writing skills that would be considered below grade level.

Grade 3 students were chosen as participants for several reasons. First, Piaget suggests that during the age period of 6 years to 8 years, children make an important shift from a stage of unidimensional centration in thinking to demonstrating increased decentration or reciprocity with respect to both physical and social objects (Piaget & Inhelder, 1966/1969). This theoretical prediction has been supported by research (Aðalbjarnardóttir, 1988; Yeates & Selman, 1989) which demonstrates that students of this age are at a critical period in moving from the level of egocentric thinking to the level at which they are able to consider two sides of an issue. Since students are at an age where there should be a shift from one level to another, this would be a good time to assess whether that expected shift is occurring. If this type of growth is not evident, it would be useful for a teacher to know this so that suitable instructional interventions can be taken to encourage this growth.

Aðalbjarnardóttir (1988) looked at increase in competency levels over a one-year period of 7-12-year-olds in solving interpersonal conflicts. Her findings indicate that students in the 7-9-year-old age groups showed more growth in ability in a one-year period than did older children. Rogers (1985) also found that the use of reasoning to solve conflicts (as opposed to the use of physical aggression, threat, adult intervention, and diversion) began to be evident at the grade 3 level. He notes a gender difference, however, with grade 3 girls using reasoning twice as often as grade 3 boys. These findings suggest that this is a time in their development when students might be best able to benefit from practice and training in conflict resolution skills. A second reason to work with this particular group of students is that most of the other students at the school (from grades 4 to 8) have previously been

taught a curriculum of conflict resolution skills and thus would not likely show the same amount of growth as would this previously untrained class.

### Procedure

#### Choice of Curriculum

A number of conflict resolution curricula were reviewed in order to choose the one most appropriate for use in this study. Conflict Resolution: An Elementary School Curriculum for Grades K-6 (Sadalla et al., 1990), which is published by the nonprofit Community Board Program, was chosen since it met all of the following criteria: The curriculum teaches a step-like conflict resolution process consistent with the 5-step process outlined by the INS model; the program is available in Canada; the program includes lesson activities and teaching strategies consistent with those used in Aðalbjarnardóttir's 1993 study (which also used assessment instruments based on the INS model to assess students' growth); and there are research studies or evaluations that provide evidence of the program's efficacy in teaching conflict resolution skills to elementary students. One study reported a 23% decrease in physically aggressive behavior, a 15% decrease in verbally aggressive responses, and a 49% increase in students' perceptions of their ability to solve conflicts peacefully, following training with the Community Board curriculum (Cassell, 1993). Another study (Gentry & Benenson, 1992) reported on the transfer of positive skills and behaviors to the home, following training of elementary school children using the Community Board Program.

#### Data Collection

Those lessons from the above curriculum which are recommended for grade 3 students were taught to the class (a total of 35 lessons). Following the teaching of these lessons, assessment data were gathered.

As described earlier, a conflict resolution centre was set up, and students were invited to go to this area when they had an interpersonal conflict with a peer. A tape recorder was set up at the centre and the class was instructed on its use. For ethical reasons (to ensure that participation was voluntary), the students had control over whether or not the tape recorder was used for a given conflict. Also at the centre was a chart outlining the six steps for solving conflicts that students had been taught (see Appendix F). I collected the tape-recorded data obtained from the centre and analyzed them using the rubric that was designed for this study (see Appendix C). As well, during the course of the day, students in any elementary classroom frequently require teacher assistance to solve a conflict. When this type of situation occurred, I used it as an opportunity to gather data on their competency levels. Again, the rubric designed for this study was used to analyze these data.

Data was also gathered from a student writing activity. For this activity, students were read a hypothetical dilemma from The Interpersonal Negotiation Strategies Interview Manual (Schultz et al., 1989), and they were asked how they would respond if they were the protagonist in the story (see Appendix D). In order to help gauge the level of competency in the various steps used in solving conflicts, a series of questions was read and also posted on chart paper to guide student responses (Schultz et al., 1989, see Appendix E).

One-on-one interviews with certain students were another form of data collection. The interview protocol used was adapted from The Interpersonal Negotiation Strategies Interview Manual (1989), but student responses were assessed using the rubric described earlier. This procedure would be too onerous to complete for each child in a class of 30 students. Therefore, it was

used as an additional data source for those students who did not go to the conflict resolution centre to solve conflicts during the assessment period.

Interviews were done at a time that was mutually convenient for the student and the researcher. In order not to impinge unfairly on the students' free time, the students were given a choice of times to meet with the teacher (e.g., during one of the two recess periods, at lunch time, or while the class was engaged in an independent activity such as silent reading). All students interviewed chose to do the interview during class time while the other students were engaged in silent reading. During the interview, the student was read a hypothetical interpersonal dilemma involving school work and a hypothetical dilemma involving playtime. Dilemmas 3 and 4 (see Appendix D) were used as they involve situations which I have commonly seen arise in our class and should therefore have been more familiar to the students than some of the other dilemmas. As recommended in the Interpersonal Negotiation Strategies Interview Manual, boys' names and male pronouns were used when interviewing boys and girls' names, and female pronouns were used when interviewing girls. Also, as is recommended, the dilemma was repeated if the child seemed confused or asked for clarification.

Following each dilemma, eight interview questions and follow-up probes (see Appendix E) were asked. Unlike previous studies in which the INS interview was transcribed and scored for statistical analysis, the student's performance was scored using the rubric designed for this study. As I listened to a student's response to the questions, I jotted down their answers. Later that day, I then circled one of the four descriptors (level 0, 1, 2, or 3) which best described the child's response. Each interview lasted approximately 15 minutes.

### Ethical Issues

A consent form (see Appendix G) was sent to the parents of each student. This form informed parents about the nature of the study, advised them that data and observations from class activities may be used by the researcher, and included details of the data collection techniques to be used. During the study, data collection took place at times that did not conflict with other academic and extracurricular activities. Students were told that they could terminate an interview or any other data collection activity at any time and that their participation was strictly voluntary.

It is essential that students who take part in a research study be assured that their performance will not be related in any way to their report card evaluation. Because of this, I did not grade the students in my class on Conflict Resolution during the third term of the school year (this is when data collection took place). Instead, I asked the French teacher (who taught the class for half of each day) to complete this part of the report card.

Fictitious student names are used throughout this paper when discussing the performance of individuals in order to protect the confidentiality of participants.

## CHAPTER FOUR: DESCRIPTION OF THE FINDINGS

Data collection took place over a 3-month period in my grade 3 classroom following the teaching of a series of 35 lessons on conflict resolution from the program Conflict Resolution: An Elementary School Curriculum for Grades K-6 (Sadalla et al., 1990). Students had access to the tape recorder at the peacemaking centre at all times, provided I was in the classroom with them. This meant that since I teach the English component of a bilingual program, they had access to the peacemaking centre in the morning (students spent the afternoon with their French teacher).

Four main types of data were collected: tape recordings of students solving real conflicts at the peacemaking centre, students' written responses to questions about hypothetical conflicts, tape recordings of interviews with selected students involving responses to questions concerning hypothetical conflicts, and observations made while intervening in student conflicts. Tape recordings of real conflicts being solved and student interviews were transcribed. Observations made while intervening in student conflicts were recorded in a teacher's journal. This journal also included observations I made concerning implementation and feasibility of the various assessment approaches being used.

### Peacemaking Centre

Students visited the peacemaking centre on 22 occasions to solve real conflicts. Of the 23 participants, 17 (74%) of them visited the centre to solve a conflict at least once during the data collection period. When one looks at the gender of those who visited the conflict resolution centre, all 7 female participants (100%) and 10 (63%) of the male participants visited the centre at

least once. For further details of the number of visits made by students to the peacemaking centre, see Table 1.

Students visiting the peacemaking centre were able to resolve their conflicts independently on 21 of 22 occasions. I intervened on one occasion since the students began arguing at the peacemaking centre and were not able to cooperate to solve the conflict. An analysis of the 22 conflicts shows that only four different solutions were chosen. For the majority of the conflicts, students decided either to play together at the next recess (14 of the 22 conflicts or 64%), or to say sorry and/or shake hands (5 of the 22 conflicts or 23%). See Table 2 for further details of the solutions chosen.

When it became clear that the most common solution was to play together at the next recess, I decided it would be interesting to find out if students actually followed up on this promise. I began to track these outcomes and found that of the eight situations I tracked, students followed up on their commitment to play together five times.

At the end of each school day, I reviewed any tape recordings that had been made at the conflict resolution centre that day. Using the rubric designed for this study (see Appendix C), each student's performance was scored. Students were scored on four functional steps described by the INS model: defining the problem, generating alternative strategies, selecting and implementing a strategy, and evaluating outcomes and feelings. For each functional step, students were given a score corresponding to the four levels of performance defined by the INS model (0=impulsive, 1=unilateral, 2=reciprocal, and 3=collaborative). All of a student's visits to the conflict resolution centre throughout the data collection period were scored in this way and placed in individual student files for easy access. Teachers, who are often responsible for 30 or more students, need practical yet meaningful ways to evaluate the

Table 1

Frequency of Participant Visits to Peacemaking Centre

Number of visits	Number of students (%)
0	6 (26)
1	6 (26)
2	3 (13)
3	3 (13)
4	2 ( 9)
5	2 ( 9)
6	1 ( 4)

Table 2

Types of Solutions Chosen by Students at the Peacemaking Centre

Solution	Number of Times Chosen
Play together at the next recess	14 / 64%
Say sorry and/or shake hands	5 / 23%
Make friendship cards	2 / 9%
Change seating position in class	1 / 5%

large amount of data they collect for individual students in all the various subject areas. I decided that a practical way to give an overall INS score to each child for his/her performance in solving real conflicts at the conflict resolution centre would be to use the mode (most commonly occurring score) of all scores over all the four functional steps.

As shown in Table 3, of the 17 students who visited the conflict resolution centre, 4 (35%) received an overall INS score of 1 for solving real conflicts and 11 (65%) received an overall INS score of 2. No students received scores of 0 or 3. Included in these results are three students who received scores that were bimodal: one student's score showed equal occurrences of levels 1 and 2, one student's score showed equal occurrences of levels 2 and 3, and one showed equal occurrences of levels 1 and 3.

The average amount of time I spent analyzing these tapes each day was also calculated, in order to address the feasibility of other teachers using this evaluation process. The average amount of time spent daily was 16 minutes.

### **Writing Activity**

The second type of data collected consisted of students' written responses to questions asked about two hypothetical conflicts. Each of these two writing activities took place on different days. On each of these two occasions, the conflict was read aloud twice to the students and repeated a third time for any student that requested it (refer to Appendixes D and E for a list of the questions posed and the hypothetical dilemmas used). The questions were written on chart paper and posted at both the front and the back of the classroom where all students could see them, and these were also read aloud to the students. Individual questions were rephrased for students who indicated that they didn't understand them. During one of the writing activities, I noted that out of the 23 students, 8 required this type of

Table 3

Percentage of Students Scoring at Each INS Level for the Various Data Collection Methods

INS levels	Peacemaking centre (%)	Interview procedure (%)	Writing activity (%)
0	0	0	0
1	35	0	17
2	65	100	78
3	0	0	4

Note. Students with bimodal scores were scored at the lower of the 2 levels. Three students received bimodal scores at the peacemaking centre; 3 students received bimodal scores on the writing activity; and 3 students received bimodal scores on the interview procedure.

clarification and some of these 8 students requested clarification of more than one question. Students were told to guess if they were unsure how to spell words, although I did assist with spelling if asked to do so.

One student in the class was unable to do the activity due to reading and writing difficulties. This student has been formally identified as a student with special needs, and was receiving an individualized language program. For this student, the special education resource teacher who often works with him read the questions aloud and recorded his oral answers. This was done outside the classroom while the other students were working on the activity in the classroom.

After 40 minutes, all but 4 of the students in the classroom had completed the activity. After a lunch break, these 4 students were given more time to finish (all were finished after 15 additional minutes of time were given).

Students' responses to each of the two hypothetical conflicts were analyzed in the same way, using the same rubric, as is described above for the conflict resolution centre. Students were again given an overall INS score, this time for their performance on responding to questions about hypothetical conflicts. As shown in Table 3, of the 23 students participating in the study, 4 (17%) received an overall INS score of 1, 18 (78%) received an overall INS score of 2, and 1 (4%) received an overall INS score of 3 for the writing activity. Included in these results are three students who received scores that were bimodal, with equal occurrences of levels 1 and 2 scored on the rubric. Students receiving bimodal scores were scored at the lower of the 2 levels.

The time spent after school hours scoring the written activities was calculated in order to address the feasibility of other teachers using this evaluation process. Each student responded in written form to two separate

hypothetical dilemmas. An average of 135 minutes was spent after school hours evaluating each of these two class sets of written responses.

### **Interviews**

Interviews were conducted with the 6 students who did not visit the conflict resolution centre to solve a conflict. When I noticed that all these students were boys, I decided to do several more interviews with girls, and 3 girls were chosen and invited to participate in the interview procedure. The 3 girls chosen were those who had made the fewest visits to the conflict resolution centre.

The interview procedure was similar to the writing activity: it involved reading two hypothetical conflicts to the students and then asking them to respond to a series of questions about the conflict. This time however, students responded verbally and could be asked probes for further information or clarification. Once again, the rubric was used and scored as described earlier to arrive at an overall INS level score for each student interviewed. Of the 9 students interviewed, 6 (67%) students had an overall score of level 2, and 3 (33 %) had bimodal scores of 2/3 (see Table 3). The 3 participants with bimodal scores were scored at the lower of the 2 levels.

### **Teacher Interventions in Student Conflicts**

The fourth data source was situations in which I as the teacher was required to intervene in a conflict. There were five conflicts in which this was necessary. In four of the situations, I was involved from the beginning due to the serious or complicated nature of the conflict. Two of these four situations involved physical aggression, one involved a racial slur, and one involved four different students (I have found from previous experience that it is difficult for that many students to work together independently to solve conflicts). In the fifth situation I became involved when the students were

unable to cooperate and solve the conflict independently at the peacemaking centre.

Because of my involvement in guiding students through the process and offering assistance and suggestions, the use of this type of situation would not have provided a fair assessment of individual student abilities. Therefore, rather than using the rubric to assess individual students, I instead used these opportunities to make informal observations.

## CHAPTER FIVE: DISCUSSION

### Peacemaking Centre

One of the most interesting and useful findings from this study is the effectiveness of the peacemaking centre, both as a place for students to solve their own conflicts and as a place for teachers to gather assessment data through the use of the tape recorder. The finding that students were able to solve their own conflicts independently at the peacemaking centre on 21 of 22 occasions has a number of implications. This finding supports numerous other studies that indicate the positive results of conflict resolution training (e.g., Cassell, 1993; Gentry & Benenson, 1992; Johnson et al., 1992; Maday, 1987; Satchel, 1992; Stern & Van Slyck, 1986). It is also important to remember that in this context, while students were solving their conflicts independently at the conflict resolution centre, the rest of the class (including the teacher) were able to carry on with their regular learning activities. In only one case was I drawn away from the class because students were unable to solve a conflict independently. In all other 21 instances, the students finished solving the conflict and then simply rejoined the class and carried on with their own learning activities. Elementary teachers know that when students are upset over an interpersonal conflict they are often unable to focus on the learning activities going on in the classroom. As well, their behavior in such instances will often disrupt other students in the classroom. The success students had in solving conflicts independently at the peacemaking centre is thus of great relevance to elementary school teachers.

It is also relevant to note that the majority of the students in the study found it useful to have such a centre at their disposal, since 74% of them visited the centre to solve a conflict at least once. This finding suggests that

the use of a tape recorder at the conflict resolution centre as a method for the teacher to gather assessment data can be useful for a majority of the students in a class. Conversely, it suggests that some other form of data collection must also be available for a teacher in order to assess those students who do not visit the centre (26% of the students in this case).

One of the main purposes of this study was to investigate the use of an adapted version of the INS assessment instrument for classroom assessment of conflict resolution skills. This study's results concerning the use of the rubric are consistent with INS theory which predicts that students of this age group (all students were 8 or 9 years old) should illustrate level 1 (unilateral) or level 2 (reciprocal) behavior and thought patterns (Aðalbjarnardóttir & Edelstein, 1989). Results indicate that all students who visited the conflict resolution centre followed this pattern with the exception of 2 students (1 student had equal scores of levels 1 and 3 and another student had equal scores of levels 2 and 3). The majority of the students (59%) received an overall INS score of level 2.

Although this study was not specifically designed to examine gender issues, it is interesting to note the difference in the percentage of boys (63%) and girls (100%) visiting the centre. Follow-up studies would be necessary to investigate such issues as gender differences in incidence level of conflicts as well as possible differences in styles and strategies for conflict resolution.

The lack of variation in solutions for conflicts chosen by students was another piece of information made available through the peacemaking centre tape recordings. This is illustrated by the finding (illustrated in Table 2) that only two solutions (play together at the next recess; say sorry and/or shake hands) were chosen for 87% of the conflicts. Although a number of the lessons taught did focus on brainstorming "win-win" solutions, perhaps

more instruction in this area would be useful to students. Alternately, it is also possible that at this age level these two somewhat simple, generic solutions are all that is needed for successful resolution of a conflict. Perhaps playing together at recess (the most common solution chosen) is an effective way for students at this age level to put the conflict behind them and ensure that a positive relationship is maintained.

Although it would be interesting to look at the topic of solutions chosen in more detail in further studies, in the 8 situations that I was able to track, students did follow through on their promise to play together on 5 occasions. The importance of following up on the solution for one student was evident when, after agreeing to play together with a classmate, she was asked to stay in at recess to finish some homework. This student expressed her concern to me that she be able to keep her promise. I suggested she ask the student to play together the following recess instead, and this seemed to satisfy all parties.

During the data collection period, I made a number of observations about practical issues related to the feasibility of using a peacemaking centre for assessment purposes. One decision I had to make prior to starting data collection concerned where to set up the peacemaking centre. In the past, I had set it up in the back corner of the classroom, but I was concerned that classroom noise might interfere with the use of the tape recorder. For that reason, I set the tape recorder up in the hallway just outside the classroom door. Since there is a long glass window beside the door, I was able to keep visual contact with the students outside, while they were able to have more privacy and quiet than they would in the classroom. While listening to the tape recordings made at the centre, I noticed that students would sometimes stop talking when someone walked by in the hallway and then continue once

that person was out of earshot. This seems to indicate that privacy while solving a conflict was important to some students.

Occasionally I would hear background noise from the hallway, or even from the nearby gymnasium, but this never hindered my ability to hear what was being said at the peacemaking centre. The only time that background noise was problematic was when students tried to solve a conflict right before the start of the recess break, while students from other classes were starting to line up in the hallway to go outside. For this reason, I began to ask students who wished to solve a conflict at this time to either wait until everyone had gone outside or to solve it after recess was over, and all students had returned to their own classrooms.

Early on in the data collection phase of the study, I noticed that students would frequently whisper while solving their conflicts. The whispering typically involved one student correcting or prompting the other student as they moved through the six-step conflict resolution process. This was not a problem for data collection, since the microphone in the tape recorder I was using was able to pick up all whispered comments. It did however suggest that students did not want me to hear them correcting or helping each other, as if they felt they should be doing the steps perfectly each time. As a result, I reminded the class that it was fine to help out your partner when solving a conflict, and that it was important for me to hear how they did that.

The conflict resolution centre also provides opportunities to identify and address gaps in the learning of individual students. As I had expected, having the chance to "listen in" as students solve conflicts was an effective way to gain insight on student behavior and progress in conflict resolution skills. On several occasions while listening to tape recordings from the peacemaking centre, I noticed that students skipped a step in the six-step conflict resolution

process while solving a conflict. When this happened, it provided an opportunity for me to review the process with those students who needed assistance.

On another occasion, I was puzzled about one student's (Justin's) behavior after listening to him solve a conflict concerning pushing with a friend (Tara). Justin's behavior was completely submissive (he took total responsibility for the conflict), with which Tara apparently concurred, since she took no responsibility for the problem but blamed it all on Justin. This one-sided analysis would put both students at an INS level 1 according to the rubric. I found this situation puzzling because in my experience it is fairly rare (although certainly not impossible) to have a completely "one-sided" situation like this. Usually there is at least some responsibility on both sides for either causing or escalating the conflict. If one student does not admit any responsibility, his/her partner is usually more than willing to point out the role they played in starting or escalating the conflict. In this case, however, that did not happen.

Having listened to their initial tape recording as they solved the conflict, I then asked the two students involved if they could give me more information about what had happened during the conflict. I explained that I didn't understand what caused Justin to push Tara in the first place (trying to find out if it was indeed a completely unprovoked attack). At this point Justin calmly explained that he had just said it was all his fault because he wanted to solve the conflict quickly and that actually the pushing had been accidental. At this point I asked the two students to try the process again, this time giving all the information I needed to find out what really happened.

The next day, when I listened to this second tape recording of the students solving the conflict Justin gave a much more complete definition of the

problem and was better able to describe both persons' needs in this situation. Tara did need an apology for being pushed, but Justin also needed an acknowledgment from Tara that his pushing was accidental, not intentional. Rescoring the rubric following this second session resulted in the assignment of INS level 2, rather than level 1 for both students.

### Writing Activity

Like the results from the peacemaking centre, the results from the writing activity are consistent with the INS theory's prediction that students should score at INS level 1 or 2. In this case, 96% of students followed this pattern, with the majority (78%) scoring at level 2.

Students' poor writing skills made it difficult to assess 3 of the 23 students' writing activities. For these students, the activity may not have demonstrated their knowledge and ability in conflict resolution skills, since the more complex the ideas, the more difficult they are to write down. This results in an increased probability of simple, low-level responses. It should be noted that 2 of these students had arrived at the beginning of or during the school year from French-language schools and this was their first exposure to extensive use of English in a school setting. The results from these students suggest that the writing activity may not be an appropriate assessment tool for all students in a classroom.

While implementing and scoring the writing activity, I made a number of observations concerning the feasibility of using this activity for assessment purposes. Although all students were able to complete the activity, the time it took was longer than these students would usually spend on writing activities. For this reason, the activity might not be appropriate for use with younger students. As well, it is possible that the reading comprehension and writing demands might be above the skill level of younger students. Because

both the class time demanded and the amount of time needed to evaluate the activities was somewhat onerous, I believe it would be more feasible to do the writing activity once, rather than twice as was done in this case.

### Interviews

The number of level 3 responses in the data obtained from the interview procedure appear to indicate that students tend to obtain higher INS scores on this measure than are found when data are obtained from solving real conflicts at the peacemaking centre or from the writing activity (33% of the students interviewed had bimodal overall scores of 2 and 3).

This is perhaps not surprising when one considers what is being asked of the child in each form of data collection. Solving real conflicts takes place in a context that can often be filled with strong emotions (such as feelings of anger, frustration, jealousy, etc.) which may make the task more difficult or get in the way of completing the task. As discussed above, some students in grade 3 are still learning about written communication and would find it a challenge to communicate in written form. With the interview however, students are able to respond verbally in a one-on-one situation which allows opportunities both for the student to ask for clarification and for the interviewer to request it. As well, students have had considerably more experience at this stage in their lives with spoken communication than with written communication.

Compared to the other two forms of data collection discussed (the peacemaking centre and the writing activity), there are more practical difficulties with the use of the interview procedure. These difficulties may limit its feasibility as an assessment tool. The length of the interview makes it difficult to accomplish in the classroom setting. I found it challenging to schedule the nine interviews I completed during times when the rest of the

class was constructively and quietly occupied. Students of this age level still require considerable teacher attention and supervision even when working "independently", and it is hard to provide this while trying to conduct a one-on-one interview. Conducting the interviews at recess breaks is also problematic in that students are not overly motivated to work hard when asked to miss their recreational time (not to mention that teachers need washroom/coffee breaks too).

### **Teacher Interventions in Student Conflicts**

Prior to beginning data collection, I had assumed that my interventions in student conflicts would provide a rich source of data and another opportunity to assess student ability using the rubric. The fact that only a limited number of opportunities arose for me to do this is a very interesting finding. It is possible that students were so comfortable and adept at using the peacemaking centre that they had little need for teacher intervention in their conflicts. Further study which attempts to tie the use of a conflict resolution centre to a decrease in the need for teacher intervention in student conflicts is necessary to explore this possible link.

### **Relationships Among Data Collection Methods**

As shown in Table 3, it appears that the INS levels from the interview procedure are higher than those from the writing, which are higher than those from the peacemaking centre. One difference among data collection methods that might explain this finding concerns the fact that the writing and interview procedures use hypothetical conflicts, while the peacemaking centre uses real conflicts. As discussed earlier, previous researchers have found differences in results when real as opposed to hypothetical conflicts are used (Gilligan, 1977; Murphy & Gilligan, 1980). Also discussed earlier is the

fact that young students may be more adept at oral rather than written procedures.

One should also note, however, the similarities among data collection methods. For all three methods, the majority of students scored at the same level, level 2. This finding supports INS theory, which predicts that children aged 7-8 should demonstrate level 1 or 2 responses (Aðalbjarnardóttir & Edelstein, 1989).

### **Problems With the Use of the Rubric**

During the data collection period, a number of problems arose concerning the use of the rubric. These problems need to be addressed if the rubric is to be a useful assessment tool for teachers. One problem is that the rubric seems to be less appropriate for assessing tape recordings of actual conflicts being solved than it is for assessing the writing activity and interview data. This problem concerns the fact that when the 6-step process for solving a conflict is used, certain outcomes become more likely. For example, the students are less likely to state the problem from the other person's perspective (a level 2 response on the rubric) and more likely to state their own feelings and perspective. This is because step 2 of the process ("Each person tells how they feel and what they think the problem is") directs them to focus on their own perspective. Since the other person also has a chance to do this, the conflicts are generally solved in a mutually acceptable way. However, the use of the process, which directs students to initially focus on their own feelings and perspective, may result in lower scores on the rubric. In other words, although the student may indeed be able to perceive the problem from the other person's perspective, evidence of this ability may not show up when the student solves a conflict at the peacemaking centre. One way teachers could deal with this problem in future is to ensure that, in addition to scoring

a student's performance at the peacemaking centre, each student also has an opportunity to be scored using the writing or the interview activity to see if a higher level of understanding is exhibited.

Another problem with the rubric was evident not only while scoring students at the peacemaking centre, but also when scoring their writing and interview activities. This problem involved a frequent difficulty I encountered in deciding how to classify student performances on the rubric. Sometimes, a student's performance on one or more of the four functional steps listed on the rubric seemed to fall partly in one level and partly in another. I often would "second-guess" how I had scored students and end up wishing I could put the check-mark on the rubric in between two levels, rather than being forced to choose one or the other.

There are several possible reasons for this difficulty. One explanation is that my adaptation of the INS model into the rubric form simply does not accurately capture student behavior and thought. Further research to validate the rubric might involve comparing a student's performance when judged by trained personnel using the original INS manual with that student's performance as assessed by a teacher using the rubric.

Another possible explanation would be that student behavior does not always slot neatly into the discrete cells of a rubric but would better be described on a continuum. As mentioned earlier, Piaget suggests that during the age period of 6 years to 8 years, children make an important shift from a stage of unidimensional centration in thinking to being able to demonstrate increased decentration or reciprocity with respect to both physical and social objects (Piaget & Inhelder, 1966/1969). Aðalbjarnardóttir (1988) and Yeates and Selman (1989) similarly demonstrated that students of this age are at a critical period in exhibiting a movement from the level of egocentric thinking to the

level at which they are able to consider two sides of an issue. Perhaps students do not neatly and suddenly shift levels, but rather for a period of time might exhibit some behavior typical of one level and some behavior typical of another. This different theoretical interpretation is similar to the criticisms of Piaget's stage theory which argue that, rather than sudden changes in discontinuous levels of functioning, development takes place in a more continuous fashion (Daehler & Bukatko, 1985). For this reason, it may be more appropriate to design the rubric in the form of a continuum rather than in the form of a chart with discrete cells.

The finding concerning bimodal scores also challenges the notion of a discrete one-directional progression from INS level 0 to INS level 3. As mentioned earlier, data from the peacemaking centre indicates that 3 students received bimodal scores (one student's score showed equal occurrences of levels 1 and 2 on the rubric, one student's score showed equal occurrences of levels 2 and 3, and one student's scores showed equal occurrences of levels 1 and 2). Data from the writing centre also indicates 3 bimodal scores, all with equal occurrences of levels 1 and 2. Finally, 3 bimodal scores were found in the interview data (all with equal occurrences of levels 2 and 3). Since the data in Table 3 are reported in distinct levels from 0 to 3 (as suggested by the form of the rubric), it was decided to err on the conservative side and assign students with bimodal scores an overall score at the lower of the 2 levels. It is worthwhile however, to examine the possible meaning of these bimodal scores in more detail. One way to interpret these findings would be to suggest that they represent students in transition from one level to another level. These students would thus be demonstrating some characteristics of the 2 different levels at the same time. This interpretation of the data lends more

support to the idea of using a continuum, rather than a rubric with discrete cells to describe a student's development.

### **Implications for Report Card Evaluation**

A truly useful assessment tool would provide teachers with data that they could use when completing the Ontario provincial report card section which lists "Conflict Resolution" as one of the nine Learning Skills which must be assessed (Ontario Ministry of Education and Training, 1997c). Student progress in each of the Learning Skills is described using E for Excellent, G for Good, S for Satisfactory, or NI for Needs Improvement. INS theory predicts that students of the age level of the participants of this study should perform at an INS level of 1 or 2. One way to report student performance on the report card would be to assign students with an overall INS score of level 0 a mark of NI, those with a score of level 1 a mark of S, those with a score of level 2 a mark of G, and those with a score of level 3 (which is above what is expected at this age level) a mark of E.

### **Benefits and Limitations of Action Research in Education**

Those conducting action research have a pragmatic orientation and recognize the trade-off between the benefits of giving practitioners the central role in research and the resulting limitations this brings about (Somekh, 1995). The main benefit of action research is that it provides needed information to the practitioner, who is also the one person who generally has the power to bring about change (Somekh, 1995). Other benefits that teachers, as practitioners in the classroom, bring to the research process are:

(a) opportunities to observe learners over a long period of time and in various academic and social contexts; (b) years of knowledge about the culture of the community, school, and classroom; and (c) the ability to generate questions that are unique in that they come not only from theory or practice

but from critical reflection on the relationship between the two (Cochran-Smith & Lytle, 1990). There were several other practical benefits I found while doing research in my own classroom. As a qualified teacher who is known to the principal and parent community, I had easier access past the "gate-keepers" of the setting in which I conducted my research. Also, I already had some understanding of the culture, background, and communication styles of the participants. In addition, when it came to scheduling times for data collection I had an understanding of the schedules, rhythms, occurrence of special events and other disruptions, and was able to position my observations accordingly.

Limitations of action research include the restricted amount of time practitioners can devote to research and the lack of certain kinds of specialist knowledge. Time is limited because the primary occupation of the action researcher is that of a working practitioner (Somekh, 1995). Since teaching is a profession where one is responsible for the children in one's care and "on duty" at all times, situations will inevitably arise when one's duty as a teacher pulls one away from one's work as a researcher. Foshay (1998) also acknowledges the practical problems of a lack of time and energy, the need for teachers to need to develop technical knowledge about data collection and analysis and the problem of overgeneralizing the findings of the research. He notes however that help does exist. For example, he suggests that children can be enlisted to do some of the observation, which also allows them to be part of the problem's solution (Foshay, 1998). In my own research, the student participants did assist me in several ways. They recorded their name and the date on a tally sheet each time they visited the conflict resolution centre, operated the tape recorder themselves, and set up and put away the tape recorder for me each day.

Another difficulty with action research is the fact that the urgency and immediacy of professional life is at odds with the ability to focus on an inquiry in a reflexive and sufficiently detached frame of mind (Elliot, 1991). Grimmett (1996) indicates that developing a culture of inquiry in a school involves sustaining large blocks of uninterrupted time for teachers to talk in teacher research group meetings.

Another challenge when working with children, is the "right-answer" problem, in which children respond in interview situations in a way that they feel will satisfy someone whom they see as an authority figure (Hatch, 1988 as cited in Swadener, 1988). This can be problematic anytime a researcher works with children, but the problem may be exacerbated when the researcher is also the child's teacher.

In my own research, I did encounter some of the challenges and limitations discussed above. Certainly the fact that I was teaching full-time while conducting this research study made it difficult to find any large blocks of time to focus on my research. During the day at school, any time not spent actually teaching (such as the time before and after school, recess breaks and lunch time) is always filled with innumerable tasks. Extracurricular activities, providing extra help for students, photocopying and other lesson preparation activities, marking, supervision duties, and dealing with disciplinary problems are some of the many duties that fill a teacher's "spare" time. Consequently, all my research-related work was done in the evening after work and family-related duties were finished, or on weekends. Finding the mental energy and level of concentration after a long day at work that is necessary for working on a research study is a considerable challenge. Unless a teacher's day is reorganized in some way so that there is time during the

actual work day for conducting research, it will be difficult to convince more teachers to become involved in action research.

### Verification Standards

Every research study needs to address the issue of the quality of its conclusions. Miles & Huberman (1994) identify 5 standards that define the quality of conclusions in qualitative research. These are: objectivity/confirmability, reliability/dependability, credibility/authenticity, transferability/fittingness, and utilization/application. To meet the first standard of objectivity/confirmability, the research should be reasonably free from unacknowledged researcher bias. At the minimum, Miles & Huberman (1994) advocate that the inevitable biases that do exist be made explicit. Lincoln & Guba (1985) use the term neutrality to describe this type of standard. In this study, an obvious source of bias concerns the fact that the research was conducted using my own students as participants. As the person who taught the conflict resolution curriculum to the students and then assessed their performance using the rubric, I have a vested interest in seeing my students perform well. This situation could conceivably result in skewed assessments of student performance. One method I used to counteract this was to keep a journal in which I tried to be as self-aware as possible about my own personal assumptions and biases throughout the course of the study. Some of the issues that I addressed in this journal have been discussed earlier in this paper (e.g. the difficulties I encountered in the use of the rubric). As discussed earlier, proponents of action research like myself believe the benefits of this type of research outweigh the limitations imposed by having the teacher act as a researcher.

The second standard of reliability/dependability is an issue of quality control and refers to whether the process of the study is consistent and

reasonably stable over time (Miles & Huberman, 1994). Lincoln & Guba (1985) use the term consistency to describe this standard. Yin (1994) describes a reliable case study as one in which all procedures have been done with reasonable care and suggests that researchers ask themselves whether the same results would be found if another investigator did the same case study again, using the same case and the same procedures. He recommends that researchers should operationalize as many steps as possible, and document all procedures in order to increase reliability. In this study, care was taken during data collection and analysis to increase reliability. Although the initial scoring of student interview responses and conflict-solving sessions at the peacemaking centre was done at the time the data was collected (by listening to the audio tapes), these tapes were also transcribed. These transcriptions proved useful in allowing me to later re-check my scoring or further investigate any anomalous data.

The standard of credibility/authenticity asks whether the findings are credible to readers or whether they make sense (Miles and Huberman, 1994). Also referred to as trustworthiness, (Eisenhart & Howe, 1992) the standard of credibility is analogous to the standard of internal validity in quantitative research terminology. One way to improve credibility is to link the data to prior theory; in the case of this study credibility is enhanced by the linking of the findings to the (INS) theory. The use of multiple sources of evidence or triangulation in producing generally converging conclusions also enhances a study's credibility (Miles & Huberman, 1994). As discussed earlier, the use of 4 data sources (audio tapes of students solving real conflicts, data from situations in which the teacher is required to intervene in a conflict, data from a modified INS interview procedure and evidence obtained from a student writing activity) provide triangulation in this study.

The standard of transferability/fittingness refers to whether the study's results are transferable to other contexts (Miles & Huberman, 1994). Lincoln and Guba (1995) use the term applicability for this standard and define it as the likelihood that the findings will pertain to other groups in other situations. One needs to be cautious in attempting to generalize from this case study of one classroom to all other elementary classrooms. As was discussed, the data collections techniques (especially the writing activity) may be less successful with students younger than grade 3. It is reasonable however to suggest the possibility that the rubric (with the specified alterations) could be used successfully in other grade 3 classrooms. The data collection methods used in this study relied heavily on students' ability to communicate in written and oral form. It is interesting to note that, although the class in this study was from a bilingual school in which a substantial percentage of students do not speak English as a first language, the data collection tasks still provided useful information from most students (as mentioned it was not possible to analyze data from the writing activity for 3 students due to poor writing skills). Since the data collection techniques worked relatively well with these students, it is reasonable to expect that they would work in many other grade 3 classrooms (many of which would not have as high a percentage of students for whom English is a second language).

Utilization/application is the final standard outlined by Miles & Huberman (1994). This standard is a pragmatic one and refers to what effect the study has on the participants, the researchers and the study's consumers. As was discussed earlier, action research studies such as this one, take this into account by definition. Since action research is designed and carried out by practitioners to shed light on and improve their own practice, the results tend to have very practical application for the researchers and for other

consumers of the research. The principal research question addressed in this study, which dealt with the feasibility of the INS assessment instrument, demonstrate the study's concern with the standard of utilization/application.

Miles & Huberman (1994) also discuss the effect of the research on the participants when discussing the standard of utilization/application. This relates to the ethical concerns of who may benefit or who may be harmed by a study. The ethical considerations discussed earlier are extremely important in a study like this which involves children, who are a more vulnerable group of participants. I would also suggest that the participants did benefit in several ways from participation in the study. Firstly, it appeared that participating in the various data collection activities was a positive experience for students. The high percentage of students who chose to visit the peacemaking centre and the finding that many visited the centre several times indicates that students found this to be a worthwhile activity. As well, I feel that it was also a beneficial learning experience for the students to watch their teacher go through the process of conducting research so that they could see that learning is a lifelong process. I indicated to the students that even though I teach them all day, I also have learning of my own to do which I do through the school I attend as a student, the University of Ottawa. During the school year, I asked the students to conduct their own research projects on gerbils, in preparation for the arrival of two gerbils as our class pets. During their research activities, I drew the students attention to the parallels of what they were doing and what I was doing. I indicated to them as they each went through the process of generating a research question, finding information to answer the question, and communicating their findings to others, that I was going through a similar process with my own research into conflict resolution. I hope that this comparison helped students recognize the value

of the activities they were doing at school, in preparing them for similar activities they might do later as adults.

### Conclusion

The principal research question in this study was "How feasible is an adapted version of the INS instrument for classroom assessment of conflict resolution skills?" Feasibility was defined for the purposes of this study as including three components: relevance or utility (the information provided must be relevant to the decisions being made or must serve practical needs), scope (the information provided must relate to all aspects of the decision), and timeliness (the information provided must be obtained in time to be of use to the decision-maker; Guba & Stufflebeam, 1970; Nevo, 1983).

The standard of relevance or utility has been achieved because the rubric provides useful data that can be used to help teachers complete the report card section on Conflict Resolution. The second component of feasibility, scope, has also been achieved since the information provided by the rubric does provide information on all the steps involved in the conflict resolution process. The rubric breaks down the process and provides information on how well students are able to define the problem, generate strategies, select and implement a strategy, and evaluate outcomes and feelings. This is useful because, if it is found that a student, a group of students, or the entire class is having trouble with a specific part of the conflict resolution process, then extra practice or reteaching in this area can be provided as needed.

The third component of timeliness can be achieved provided some recommended changes are made to the assessment tool. According to the definition outlined earlier, timeliness implies that it is possible to use the assessment instrument within the time constraints currently faced by teachers or, in other words, without adding a substantial amount of time to the

teacher's after-hours workload. Finding the time during the school day for assessing student progress is a real challenge for teachers today. There is an increasing focus, both from the Ontario Ministry of Education and Training and from the public, on accountability in assessing and reporting student progress. Recently-released curriculum documents in Mathematics, English, Social Studies, Science and Technology, Physical Education and the Arts all provide explicit, province-wide expectations for students at each grade level. Elementary school teachers must report to parents 3 times each year on student progress in these 6 areas (in addition, teachers in Catholic schools must report on progress in Religion and Family Life Education). Furthermore, Mathematics and English are broken down into several strands. For example, on each report card teachers must assess progress in 5 mathematics strands: numeration, measurement, patterning and algebra, geometry, and data management. With increasing class size, finding the time to develop, administer, and evaluate assessment activities in these many areas is a daunting task for teachers.

As was noted earlier, an average of 16 minutes was spent daily after school assessing students' performances at the conflict resolution centre. Since a teacher would probably do this a few times each year, it does not seem to be a difficult amount of time to justify using. The 270 minutes (135 minutes for each of two sets of activities) that was spent marking the writing activities (especially when added on top of the time discussed above) does seem to be asking a lot of teachers. This problem could be dealt with in several ways. A teacher could assign only one, rather than the two writing activities that were assigned in this study. As well, a teacher might also decide to rely more on the data obtained from the peacemaking centre and use the writing activity

only for those students who do not visit the conflict resolution centre to solve a conflict.

Timeliness also implies that the use of the tool does not require the use of substantial amounts of classtime, recess time, or lunchtime periods. As was discussed earlier, the length of the interview made it difficult to accomplish in the classroom setting while attempting to keep the rest of the class constructively and quietly occupied. Again, this problem could be addressed by having the interview process used only for those students who do not visit the conflict resolution centre to solve a conflict.

### **Implications for Further Research**

Although this study has provided relevant and useful information in the area of assessment of conflict resolution skills, it has also raised a number of related questions of interest. Some of these questions arise because of limitations in the scope of the present study (an action research case study in one classroom), while others arise from several interesting findings which naturally lead to further avenues of investigation.

One limitation of this study is that it is a case study of one teacher's experience with one group of students. It would be interesting to find out if results are consistent across other classrooms, other grade levels, and other schools. Further study would also be needed to validate the rubric, either in its present form or in the new form of a continuum. One possible way to do this would be to compare a student's performance when judged by trained personnel using the original INS manual with that student's performance as assessed by a teacher using the rubric.

Gender differences is one area that this study did not address that could prove a fruitful area of further study. It would be interesting to find out if there are gender-related differences in incidence level of conflicts, as well as

possible differences in styles and strategies for conflict resolution. Tape recordings of students solving real conflicts would be one way to collect data on these potentially different styles and strategies.

As mentioned earlier, a surprising finding was the lack of opportunities that arose during the data collection time for me as the teacher to intervene and help students solve conflicts. Further study which attempts to tie the use of a conflict resolution centre to a decrease in the need for teacher intervention in student conflicts would thus be of interest.

This study has been valuable for me, as a classroom teacher, in helping address the problem of how to assess students' conflict resolution skills. I hope the findings will also be of interest to other researchers working in this area and to classroom teachers who teach conflict resolution skills.

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**Table 2**  
*Four Levels of Interpersonal Negotiation Strategies*

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**Level 0: Impulsive**

Strategies at the first level involve primarily impulsive and physical behavior to get what one wants or to avoid harm. They are based on egocentric and undifferentiated perspective-taking skills, which are and do not differentiate subjective perspectives or distinguish between actions and feelings. Other-transforming strategies at this level use unreflective force to achieve a goal (e.g., hitting or grabbing), while self-transforming strategies rely on unreflective obedience or withdrawal to protect oneself (e.g., fleeing or hiding).

**Level 1: Unilateral**

Strategies at the next level consist primarily of unilateral attempts to either control or appease the other person. They depend on subjective perspective-taking skills, which differentiate subjective perspectives, but do not allow them to be considered simultaneously. Thus, other-transforming strategies at this level involve willful one-way orders to assert power, control the other person, and satisfy oneself (e.g., ordering or telling), while self-transforming strategies involve 'will-less' submission to the power, control, and wishes of the other person (e.g., obeying or 'giving in').

**Level 2: Reciprocal**

Strategies at this level involve attempts to satisfy the needs of both participants in reciprocal fashion through trades, exchanges, and deals. They rely on self-reflective perspective-taking, which not only differentiates between subjective perspectives, but also allows those perspectives to be considered simultaneously. Other-transforming-reciprocal strategies consciously use psychological influence to change the other person's mind (e.g., giving reasons, going first when taking turns), while self-transforming strategies use psychological compliance to protect one's own interests by making them secondary to the other person's (e.g., bartering or going second).

**Level 3: Collaborative**

Strategies at the highest level involve attempts to collaboratively change both one's own and the other person's wishes in order to develop mutual goals. These strategies rest on third-person perspective-taking skills, which permit the ability to coordinate the self's and the other's perspectives in terms of the relationship between them, or from a third-person viewpoint. At this level, strategies are neither self- nor other-transforming but instead mutualistic, using self-reflection and shared reflection to facilitate the process of dialogue that leads to compromise and the construction of mutually satisfactory resolutions. They demonstrate concerns for a relationship's continuity, and the understanding that solutions to immediate problems have a bearing in that regard.

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## Appendix B

TABLE 2  
Developmental Levels of the Four Functional Steps

Level	Functional Step			
	Definition of Problem	Generation of Alternative Strategies	Selection of a Strategy	Evaluation of Outcome
0	Problem is not differentiated from its immediate solution	Physical (impulsive)	Immediately gratifies or protects the self	Immediate effects on self or no justification
1	Reference to problem according to wants and needs of one person	One-way verbal conflict resolution (unilateral)	Pleases self or other in the short term	Effects justified from one perspective
2	Reference to reciprocal needs with one person's needs in priority	Two-way verbal conflict resolution (reciprocal)	Satisfies both self and other in their relationship	Shared concerns but effects on one person predominate
3	Reference to a shared problem with a long-term consideration of both persons' needs	Collaboration with other for mutual interest (collaborative)	Dialogue to preserve a long-term relationship	Positive effects for both persons in the ongoing relationship

(Aðalbjarnardóttir, 1993)

## Appendix C

## RUBRIC TO ASSESS CONFLICT RESOLUTION SKILLS

	<b>Level 0 Impulsive</b>	<b>Level 1 Unilateral</b>	<b>Level 2 Reciprocal</b>	<b>Level 3 Collaborative</b>
<b>Defining the Problem</b>	-student shows no understanding of the problem except to state what action will be taken -problem is not separated from its solution	-problem is stated in terms of only one person's wants or needs -either one's person's needs or the other person's needs can be met, but not both	-each person's needs are identified, but separately -relationship is seen as reciprocal (both person's needs are discussed) but one person's needs are given priority	-problem is seen as a shared or collaborative problem with consideration of both persons' needs
<b>Generating Alternative Strategies</b>	-physical, impulsive, largely nonverbal methods of solving the problem	-one-way commands, threats, simple requests, or submission to the other -strategies reflect an orientation toward power	-two-way communication in order to serve one's own perspective -reflects an orientation toward fairness	-collaboration with the other for mutual interests, reflecting an orientation toward the relationship
<b>Choosing and Implementing a Strategy</b>	-selects a physical, impulsive, largely nonverbal strategy -when asked what might get in the way of a solution, student can think of no obstacle to success or gives another solution instead of an obstacle	-selects a one-way order, threat, simple request, or submission to the other person -strategy reflects an orientation toward power -describes possible obstacle to solution as either a negative response from the other person (usually a simple or hostile refusal), or an outside circumstance (often of low probability), that is a problem for practical reasons	-strategy chosen reflects two-way communication in order to serve one's own perspective, reflecting an orientation toward fairness -when asked for possible obstacles to success, suggestions include a reasonably communicated and well-explained refusal on the part of the other person or an unexpected and reasonable (probable) set of outside circumstances that causes understandable bad feelings or disappointment	-strategies reflect collaboration with the other for mutual interests, reflecting an orientation toward the relationship -possible obstacle to solution is described as a circumstance that is a problem because it has an impact on their long-term relationship
<b>Evaluating Feelings and Outcomes</b>	-no expression of feelings or expression of inappropriate panic, rage, or terror -when asked how to know if problem had really been solved, no response is made or response does not make sense	-feelings reflect only one person's perspective (usually that of the protagonist) -when asked how to know if problem had really been solved, answer suggests that the problem is solved if some action occurs, in particular action that pleases or satisfies one participant	-feelings reflect both persons' points of view -there is concern for the effects of one person's feelings towards others -conflicting feelings within one person could be expressed -problem is solved if both people involved get something out of the deal or if the other agrees to the protagonist's solution	-complex feelings each have for the other are expressed, often with long-term consequences mentioned -empathic concern for shared feelings; feelings for each other (versus for each other) -problem is solved if the relationship is OK

adapted from Schultz, Yeates, & Selman, 1989

**(1) Child Dilemmas****Dilemma 1**

**Randy (Mary)** and Tom (Sue) are friends. They have been assigned to work together on a science project in school and only have two days to finish the project. They meet after school and Randy (Mary) says he (she) wants to start working on the project right away, but Tom (Sue) wants to play softball first.

**Dilemma 2**

Mark (Donna) and **David (Jane)** are friends who are talking together at school. Mark (Donna) asks David (Jane) to play after school, and David (Jane) wants to go. But David (Jane) knows that his (her) mother wants him (her) to clean up his (her) room by dinnertime because guests are coming, and if he (she) does, his (her) mother will increase his (her) allowance that week.

**Dilemma 3**

**Bob (Debbie)** and Steve (Anne) are classmates. They don't know each other very well, but their teacher has assigned them to work together on a social studies project about Africa, and they are trying to decide on a topic. Bob (Debbie) wants to do the report on wild animals, but Steve (Anne) wants the report to be about different tribes, like pygmies.

**Dilemma 4**

**Ray (Jennifer)** and John (Lynn) are both in the same grade, but they don't know each other very well. On the playground one day, they are both picked to be on the same kickball team. They both are good pitchers, both like to play that position best, and they both would like to pitch that day.

(Schultz, Yeates & Selman, 1989)

**Dilemma 5**

**Tim's (Laurie's)** teacher, Mrs. Able, wants every kid in the class to find a partner to work with on a school project. Mrs. Able says that all the kids should work with someone they don't know very well, but Tim (Laurie) wants to work with his (her) good friend, Peter (Joan).

**Dilemma 6**

In class one day, **Ben's (Louise's)** teacher, Mr. Davis asks if he (she) could stay after school to help plan the class's Halloween party. Ben (Louise) would like to help, but he's (she's) supposed to go play soccer with friends that afternoon.

**Dilemma 7**

**Jimmy's (Bonnie's)** class has a substitute teacher named Mr. Jones for the day. Jimmy (Bonnie) is working on some difficult math problems that he (she) is supposed to finish before lunch. He (she) needs some help from Mr. Jones, but Mr. Jones seems very busy with other kids in the class.

**Dilemma 8**

One day in the lunchroom, **Keith (Sarah)** is the last one sitting at a messy table. A teacher that Keith (Sarah) doesn't know very well asks him (her) to clean it up. Keith (Sarah) doesn't want to use up all his (her) recess time cleaning up the table.

**Dilemma 9**

**Steve (Laurie)** and Carl (Carol) are friends. One day at school, they are trying to decide what to do on the weekend. Steve (Laurie) wants to invite the new kid in their class to see a movie with them, but Carl (Carol) says he (she) doesn't feel like having the new kid along.

**Dilemma 10**

One day a new kid in class named Don (Denise) says he's (she's) cold and asks **Jeff (Peggy)** to lend him (her) a sweater that Jeff (Peggy) has but isn't wearing. The next day when Don (Denise) returns the sweater there is a hole in it that Jeff (Peggy) is sure wasn't there the day before.

**Dilemma 11**

**Paul (Patty)** is looking forward to recess because he (she) and his (her) friends are going to practice for the school competition in soccer that's taking place the next day. During class Paul's (Patty's) teacher says that he's (she's) behind in math and she wants him (her) to stay in at recess to work on extra math problems.

**Dilemma 12**

One day, **Fred's (Stephanie's)** class has a substitute teacher. Fred (Stephanie) remembers that he (she) is supposed to leave school early for an important doctor's appointment, but he (she) forgot to bring the note from his (her) mother. When Fred (Stephanie) asks if he (she) can leave, the substitute teacher says that he (she) can't go without a note.

**(3) INS Interview Questions and Follow-up Probes**

1. What is the problem here?  
Why is that a problem?
2. How do you think (the protagonist<sup>1</sup>) feels?  
Why does he (she) feel that way?  
How do you think (the other person) feels?  
Why does he (she) feel like that?
3. What are all the things you can think of that (the protagonist) can do to solve his (her) problem with (the other person)?  
How would that solve the problem?  
What else could he (she) do?  
Why would he (she) do that?
4. What would be the *best* way for (the protagonist) to solve his (her) problem with (the other person)?  
Why is that the best way to solve the problem?
5. How would (the protagonist and the other person) feel if (the protagonist) did that?  
Why would they feel like that?
6. What could go wrong with (the protagonist's) solution of \_\_\_\_\_ ?  
Why might that mess it up?
7. What would (the protagonist) do next if that happened?  
Why would he (she) do that?
8. How would (the protagonist) know if he (she) had really solved the problem?

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<sup>1</sup> The name of the protagonist in each dilemma has been highlighted.

## Appendix F

### Conflict Resolution Steps Displayed at Peacemaking Centre

1. Take time to cool off.
2. Each person tells how they feel and what they think the problem is (use I-Messages).
3. Each person tells how the other person feels and what that person thinks the problem is.
4. Each person says how he or she is responsible for the problem.
5. Brainstorm a win-win solution.
6. Affirm your partner.

(adapted from Drew, 1987)

**Appendix G  
Consent Form**

Dear Parents/Guardians of grade three students,

I am presently working on a Master of Arts degree in education at the University of Ottawa. As part of this work, I will be conducting a research study to better understand how teachers can assess students' ability to solve conflicts in a peaceful way.

Learning to solve conflicts has been a part of the grade 3 Religion/Family Life program at *(name of school delated to preserve confidentiality)* for several years. Conflict resolution skills are worthwhile skills that students can take with them when they leave school and face family and workplace responsibilities. Teaching students to solve their own conflicts also makes our school a more peaceful place and means that teachers can spend more time teaching and less time solving conflicts for students.

One thing that is currently lacking in the conflict resolution programs used by teachers is a way to assess how well students are able to use the skills taught. The purpose of this study is to use some new assessment strategies I have developed and then report on how well they work and what I could do to improve them. Assessment strategies would let teachers find out what parts of the conflict resolution process students do well, and what parts they need more instruction or practice on. Teachers could then design lessons and activities to meet the needs of the students in the class and also do a better job of reporting to parents how well their children are learning these skills.

Students who participate in this study will take part in four activities. As is usual, when I teach the lessons in conflict resolution, I will set up a "Peacemaking Centre" where students can go when they have a conflict. There will be a tape recorder at the centre so that students participating in the study can tape-record the conflict resolution session. Participants will be told that if for some reason they are uncomfortable taping a certain conflict resolution session, they do not have to do so. The second form of data collection will involve student writing activities. Students already write a journal entry once a week. For some of these weekly journal activities, participants will listen to a short story about a conflict two students have, then will be asked to write in their journals how they would solve the conflict. Some of the student participants will also be interviewed by me. I will read a short story about two students who have a conflict and then ask a series of 8 questions about how the conflict could be solved. The interview will last approximately 10-15 minutes (students can choose to do this at recess, at lunchtime or while the other students are doing silent reading or other quiet work). The last way that data may be collected from your child would be by my directly observing him or her solving a conflict. If I happen to be helping your child solve a real conflict, I will use this opportunity to make notes on how the conflict is solved.

If your child indicates at any time that he or she does not wish to participate in any of the above activities, his or her wishes will be respected. As well, even if you sign the attached consent form, you are free to withdraw that consent at any time during the study.

Please return the attached form to school, indicating whether or not you wish your child to take part in this study. Thank you for taking the time to consider this request.

Rosanne Popp

## Consent Form

**Principal Investigator: Rosanne Popp**  
**Affiliation: University of Ottawa**

**Telephone number: 678-5455**

Whenever a research project is undertaken with human participants, the written consent of the participants must be obtained. This does not imply, of course, that the project in question necessarily involves a risk. In view of the respect owed the participants, the University of Ottawa and the research funding agencies have made this type of agreement mandatory.

**The purpose of this study is to report on the use of new strategies for assessing students' conflict resolution skills.**

**If I agree to allow my child to participate, he/she will: be observed by the teacher/researcher while solving conflicts with other students, be tape-recorded while solving conflicts, write journal entries about solving conflicts, and possibly take part in one 15-minute interview. I understand that the information collected will be used only for research purposes and that confidentiality will be respected.**

**I am free to withdraw this consent at any time, for any reason.**

**My child's wishes will be respected** if he or she does not wish to take part in any of the activities that are part of this research study.

**I understand that** taking part in this study will not affect my child's report card marks in any way.

**My child's privacy will be respected** and my child's name will not appear in the final written report of this study.

**I understand that if I have any questions at any time, I can contact either of the two following people:**

Rosanne Popp (teacher/researcher) 678-5455

Dr. B.W. Andrews (thesis advisor, University of Ottawa) 562-5800, extension 4028

As well, any information requests or complaints about the ethical conduct of the project may be addressed to the Secretariat of the Ethics Committee (562-5800, ext. 4057).

**There are two copies of the consent form, one of which I may keep.**

**Date:** \_\_\_\_\_

**PLEASE CHOOSE ONE OF THE FOLLOWING:**

**YES, I** \_\_\_\_\_ (parent's signature) give permission for my child  
 \_\_\_\_\_ (child's name) to take part in the conflict resolution  
 study.

**OR**

**NO, I** \_\_\_\_\_ (parent's signature) do not give permission for my  
 child \_\_\_\_\_ (child's name) to take part in the conflict  
 resolution study.

## Appendix H

### **Descriptors for Conflict Resolution on Ontario Provincial Report Card**

#### **Learning Skill: Conflict Resolution**

- resolves conflicts when they occur
- resolves conflicts independently
- resolves conflicts in socially acceptable ways
- negotiates to solve problems, conflicts
- mediates differences of opinion
- listens to understand conflict before acting or offering a resolution
- assists others to resolve conflicts appropriately
- seeks positive solutions to conflicts
- uses a variety of strategies to resolve conflicts appropriately
- helps the group to identify and maintain strategies for conflict resolution