Effectiveness of conflict resolution programs in the schools: a study of students’ coping skills before and after participation in a conflict resolution/peer mediation program

Tammy Hobbs
Rowan University

Follow this and additional works at: https://rdw.rowan.edu/etd

Part of the Educational Psychology Commons

Let us know how access to this document benefits you - share your thoughts on our feedback form.

Recommended Citation
Hobbs, Tammy, "Effectiveness of conflict resolution programs in the schools: a study of students’ coping skills before and after participation in a conflict resolution/peer mediation program" (1997). Theses and Dissertations. 2070.
https://rdw.rowan.edu/etd/2070

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact LibraryTheses@rowan.edu.
Effectiveness Of Conflict Resolution Programs In The Schools

A Study Of Student's Coping Skills Before And After Participation In A Conflict Resolution / Peer Mediation Program

by

Tammy Hobbs

A Thesis

Submitted in partial fulfillment of the requirements for the Masters of Arts Degree in the School Psychology Graduate division of Rowan University 1997

APPROVED BY

Professor

DATE APPROVED 5/6/97
Abstract
Tammy Hobbs

Effectiveness of Conflict Resolution Programs in the Schools
A Study of Student's Coping Skills Before and After Participation in a Conflict Resolution / Peer Mediation Program
1997
Dr. J. Klanderman
Seminar in School Psychology

The purpose of this study is to evaluate student's coping styles before and after a conflict resolution program intervention. The 6th grade middle school class was administered the Coping Response Inventory (CRI) prior to receiving the Conflict resolution training. The Conflict resolution/peer mediation program was designed to empower students by giving them the tools to challenge and solve problems. The program focuses on the following areas: affirmation, communication, conflict resolution, cooperation, and bias awareness/appreciation of differences.

The demographics include the following: The sample group consisted of 6th grade suburban middle school students. There were 21 subjects. 57% were male and 43% were female. Further, 100% were European American, 0% were African American, and 0% were Hispanic American. The subjects were from a suburban school district. The students were of varying backgrounds and socio-economic status.
The study was designed as a pre-test/post-test Coping Response Inventory that was analyzed using a T-test for paired samples. The results may indicate that there was a significant change in the coping response of the subjects after receiving the Conflict Resolution/Peer Mediation program. The results may also indicate that students' Actual CRI and re-test scores are moving in the positive direction towards the Ideal CRI scores.
Mini-Abstract

Tammy Hobbs
A Study of student's coping skills before and after participation in a conflict resolution / peer mediation program
1996
Dr. J. Klanderman
Seminar in School Psychology

The goal was to evaluate students' coping responses and styles before and after a conflict resolution program in a traditional classroom. The results were analyzed using a T-test for Paired Samples. The pre-test and post-test mean scores were compared. There was a significant change in the students' level of coping skills.
Table of contents

Chapter 1:
The Problem.................................................................1
Need..............................................................................1
Purpose.........................................................................3
Hypothesis.....................................................................3
History...........................................................................4
Definitions.....................................................................9
Assumptions................................................................11
Limitations...................................................................11
Overview.......................................................................12

Chapter 2
Literature Review..........................................................13
Violence in the Schools..................................................13
Conflict Resolution.........................................................14
Peer Mediation Programs...............................................18
Current Research...........................................................19
Chapter 3
Methodology ............................................................ 27
Subjects ........................................................................ 27
Design ........................................................................... 29
Independent Variable ...................................................... 29
Measurements (Dependent Variable) .................................. 30
Testable Hypothesis ......................................................... 32
Analysis .......................................................................... 33
Summary ........................................................................ 33

Chapter 4
Analysis of Results .......................................................... 35
Summary ........................................................................ 35

Chapter 5
Summary and Conclusion ................................................... 40
Summary ........................................................................ 40
Conclusion ...................................................................... 41
Discussion ...................................................................... 43
Implications ................................................................... 44
Table of contents

References ........................................................................................................................................... 45
Appendices ......................................................................................................................................... 52
Appendix A Sample CRI Report ........................................................................................................ 52
Appendix B Sample CRI Profile ........................................................................................................ 61
Appendix C Checklist ...................................................................................................................... 63
Appendix D CRI answer Sheet .......................................................................................................... 65
Table 4.1 T-test for paired Samples for Pre-Test CRI and Post-Test CRI ........................................ 37
Graph 4.1 3-D Pre-Test, Post-test, and Ideal CRI Responses .......................................................... 38
Graph 4.2 Bar Pre-Test, Post-test, and Ideal CRI Responses ........................................................... 39
Acknowledgments

I would like to take this opportunity to thank the following people for their support, assistance, guidance and advice: My husband Raymond Ginsberg, Moorestown township school district, Dr. Germinario, Karen Phillips, Principal- Nina Hoover, Mr. Greg Bryan and his 6th grade social studies class, Michael D'Ascenzo, Steven Dickerson, my supervisor Melissa Shuster my Rowan University faculty advisors Dr. Klanderman and Dr. Dihoff.
CHAPTER 1
The Problem

CONFLICT RESOLUTION
PROGRAMS IN THE SCHOOLS

THE NEED

School safety is a major concern for everyone. Parents, teachers, students, and community members want safe, orderly schools. Safety is important for its own sake, of course, but in addition, it is essential for effective teaching and learning. There is a clear need for students and teachers to acquire constructive means of resolving conflict. Too frequently violence is viewed as a fast solution to a problem. It is becoming more and more evident to teachers that conflicts interrupt the learning process. The teachers have complained that disruptive student behavior interferes with teaching process. While these concerns are not new, for many years school discipline has been an important concern of the public. The complaints have intensified in recent years, and the safety of students and staff has become a major public issue. Schools have responded with everything from metal detectors to conflict resolution training. As in life in general, some conflict is a
normal occurrence in all schools. It is often particularly pervasive in urban schools, as a result of their large size, limited resources, and greatly diverse populations.

To cope with the institutional problems created by conflict, and to help students and staff handle conflict better, conflict resolution has recently been legitimized as a valid topic of discussion and study. There are thousands of school based programs in the nation. Students are learning a new way of fighting, listening to the other person’s point of view and discussing their differences until a compromise can be worked out. Knowing that violence in the schools is merely a reflection of violence in our society is of little comfort to teachers, and administrators. Acts of violence disrupt the normal functioning of the school, and fear of violence prevents students and teachers from concentrating on meaningful learning and teaching. Money that should be spent on instructional materials, staff development, and other educational necessities is spent on security (U. S. Department of Education Office of Educational Research and Improvement - May 24, 1996). The conflict resolution programs are found in every state, in rural schools as well as inner-city schools, and they involve children from kindergarten to high school. For example:

* 3/4 of San Francisco’s public schools have conflict managers.
* In New York City, more than 100 schools with 80,000 students have some kind of program.

* In Chicago, all students take a dispute resolution course in the 9th and 10th grade.

* In New Mexico a statewide mediation program involves 30,000 students.

* In Ann Arbor, a conflict resolution management curriculum reaches all of the city's students.

**THE PURPOSE**

The purpose of this study is to evaluate students’ coping skills before and after participation in a conflict resolution program. A single 6th grade class was chosen for participate in this study. The same class will be evaluated with a pre-test and post-test.

**HYPOTHESIS**

It is hypothesized that the conflict resolution/ Peer mediation training program will have a significant effect on the student’s CRI scores.
BACKGROUND
Conflict Resolution, Violence Prevention, Peer mediation, and Peaceable Classrooms: These are the words that frame a growing movement in education.

Conflict Resolution refers generally to strategies that enable students to handle conflicts peacefully and cooperatively outside the traditional disciplinary procedures. Violence Prevention connotes both a need and a program, a part of which may address conflict resolution skills. Peer Mediation is a specific form of conflict resolution utilizing students as neutral third parties in resolving disputes.

A Peaceable Classroom or school results when the values and the skills of cooperation, communication, tolerance, positive emotional expression, and conflict resolution are taught and supported throughout the culture of the school.

History
Conflict Resolution has been in existence in the schools since 1965. There were two main categories in which the programs fall into: 1.) “Peace and Justice Movement” and 2.) “Cooperative Activities”. The Peace and Justice Movement concentrate on global peace and community violence issues (Van Slyck, M. R., &
The Cooperative Activities aimed to advance higher level skills in communication, social development, and teamwork. These two practices currently exist in the schools. Deutsch (1949) was one of the pioneers in setting up cooperative activities and conflict resolution with children in the schools. He hypothesized that cooperative experiences actualized positive feelings within groups as a result of success following group cooperation. This conflict resolution model uses a cooperative structure which was developed by Deutsch (1973) and later refined by David Johnson, who was a former student. (Johnson & Johnson, 1979). Conflict resolution came into the educational setting in a more organized manner in 1985.

It began as special conferences geared at informing educators and developed into an organization known as NAME, National Association of Mediation in Education. NAME is a major resource center, clearinghouse, and focal point for activity in this area. Duffy, Grosch, Olczak, (1991).

Maxwell (1989) reported that there were four major developments that promoted
these early programs. The New York City Schools’ Quaker Project which taught non-violence to children, and the establishment of neighborhood justice centers during the Carter administration, the founding of Educators for Social Responsibility (ESR), and the introduction of the National Association for Mediation in Education (NAME).

Different Approaches

Research suggests a combination of techniques are needed. Students that are taught a variety of conflict resolution techniques will achieve higher self-esteem scores and will feel safer at school than students who were not taught the conflict resolution strategies.

The various approaches can be grouped into four areas: 1.) organizational and management approaches to improving school climate; 2.) programs for students; 3.) improved school security; and 4.) enhanced school-community programs.
School organization and management

School organization and management can improve order and safety. School climate is essential to school safety and order. Effective schools have clear discipline standards that are firmly enforced, an ethic of caring that underlies staff and student relationships, a strong emphasis on academics. These factors combine to create a powerful school climate that minimizes disruptions and leads students to feel safer and work harder. School size and organization may also play an important role: smaller schools foster closer student-staff relationships, as do many alternative schools and programs for disruptive youths, and both have been shown to improve student behavior.

Promising Results

Violence prevention and conflict management programs appear promising. Courses for the middle grades on violence prevention and conflict management are increasingly common, as is peer mediation of disputes. Initial evaluations look promising and more rigorous studies are underway.
Security Systems

Enhanced security systems are largely untested. Schools have increasingly turned to improved security systems to improve safety. Despite their popularity, however, little research exists on the effectiveness of metal detectors, door locks, or security guards in keeping out weapons or intruders.

School-community programs

School-community programs hold promise. Schools are also working with their communities to improve school order and student safety. In far too many communities, students negotiate difficult and dangerous areas on their way to and from school. In deed, the schools themselves, despite their problems are safer than the surrounding neighborhoods. In these settings, collaborative activities with local services and law enforcement agencies offer promise to make schools and students safer. Holding meetings with parents and counseling families about the risks of gang life appears promising, and can deter youth from wanting to join gangs. Although this and other areas of the school-community coordination appear promising, stronger and longer term evaluations of different strategies would have practical payoff.
DEFINITIONS:

Terms:
Agenda setting: It is a schedule that the teacher shares with the class and allows for input.

Cooperation: Children learn to work together and help, trust, and share with one another.

Communication: Children learn to observe carefully, converse clearly, and listen sensitively.

Community: Children develop a sense of trust and belonging to a group.

Conflict Resolution: Students learn the skills of responding creatively to conflict in a supportive, caring community.

Peer Mediation: Student volunteers are trained to impartially settle disputes among classmates with the aid of conflict resolutions techniques. Mediation is a process for resolving disputes and conflicts in which a neutral third party acts as a moderator for the process.

Pull Up: Students learn to encourage and support one another by saying positive words.

Put Down: Students learn that negative comments hurt other student’s feelings and cause distrust and anger.
Right to pass: Children learn that even though they are part of a community, they still have the right to pass in a situation that makes them feel uncomfortable. This is used to reassure shy students.

School Violence: Crimes perpetrated on the school grounds. The crimes can include vandalism, rape, assault, stealing, and the use, selling of illegal drugs.

Tolerance: Students learn to respect and appreciate people's differences and what prejudice means.

Violence prevention programs:

AHS - Alternative High Schools
CCRC - Children's Creative Response to Conflict
CRAVE - Conflict Resolution Anti-Violence Effort
RCCP - Resolving Conflicts Creatively
SCRC - Students Creatively Respond to Conflict
SMART - School Mediators' Alternative Resolution Team

Organizations:

ESR - Educators for Social Responsibility
ICCRC - International Center for Cooperation and Conflict Resolution
NAME - National Association for Mediation in Education
ASSUMPTIONS

Some assumptions can be formed concerning the study. The teaching style of the teacher may affect the study. However, the teacher chosen for the study will maintain the same teaching style. The teaching style will remain constant. The test will be administered to all students at the same time and the instructions will be followed precisely in both the pre-test and post-test. Finally, the subject grouping will be heterogeneous.

LIMITATIONS

The study will be limited to a 6th grade middle school class with a teacher who will received conflict resolution/ peer mediation training. It will also be represented by subjects drawn from a suburban school population. Since the students will receive the pretest and post test within a 6 month period, it is difficult to assume that the students' coping responses and skills will continue to improve or remain constant over the years. However, the conflict resolution program is integrated throughout the curriculum of the district's middle and high schools.
OVERVIEW

The previous chapter has introduced the principal topic of the thesis: Conflict Resolution. As one advances to chapter 2, there will be an in-depth investigation into the recent research and literature pertaining to Conflict Resolution within a classroom. The literature review is intended to expand one's comprehension, prior to examining the study. In chapter 3, an examination of the research that will be completed. The information thoroughly describes the sample groups, the test used, and the design used to assess the study. The fourth chapter contains a complex analysis of the results obtained during the testing period. The analysis will explain the significance found during the testing and interpret the results.
CHAPTER 2

LITERATURE REVIEW

VIOLENCE IN SCHOOLS

Extensive data research suggests that instances of violence, including bias-related violence and disciplinary problems in the schools around the country, are severely interfering with the learning environment of students. Eighty-nine respondents in 700 cities and towns surveyed by the National League of Cities in 1994 said that school violence is a major problem in their communities (Arndt, 1994). "Youth violence is the greatest single crime problem in America today" (Turney, 1994 p. 143). Everyday nine children are murdered, 307 are arrested for violence offenses (Daleo, p. 3). Almost 300,000 high school students are attacked physically each month and one in five students in grades 9 through 12 carries a weapon to school (Meek, 1992). Coulter (1994) states that in a study of 8th and 10th grade students, 34% reported that someone threatened to hurt them within the past year. According to the same report, School Violence: An Alarming Trend, over 5000 secondary teachers are attacked every month. The suicide rate continues to rise along with the violence rate. It has been estimated by researchers that as
much as 10% of suicides are not reported (Meade, Lynch and Fuller, 1995, p.28).
The rising incidence of violence in the schools has led numerous schools to implement a wide range of costly safety measures from purchasing metal detectors to hiring full-time police officers. Although these violent measures may limit violent acts in the schools, they do not get to the root of the violence or its causes. Often, the violence manifest itself in other areas of the community. There is growing, common consensus that the best way to handle violence in the schools and prevent its spread throughout the community is to defuse disputes before they turn violent (Sabo, 1993)

CONFLICT RESOLUTION
Conflict resolution in education has been linked to democracy and citizenship, developing a peaceful world, cooperative learning, multicultural education, prejudice reduction, social justice, violence prevention and intervention, critical thinking and problem-solving, and site based management. “One can only wonder about the potential of a society that has trained and experienced in solving conflict with a non-confrontational, nonviolent, consensus building approach” (Singer, 1991p. 72). In recent years, the growth of violence has fueled interest in conflict resolution. There is, however, concern among conflict resolution practitioners that
there is a need for immediate fixes to problems may lead to unrealistic and inappropriate goals and expectations. The rush to address issues of social justice and prejudice lead to similar concerns of unrealistic expectations. Experienced practitioners view conflict resolution as only a component in preparing youth to find nonviolent responses to conflict, in promoting social justice and reducing prejudice in school communities (Bettmann & Moore, 1994; Bodine, Crawford, & Schrumf, 1994; Dejong, 1994; Miller, 1994). "If as a society we want a more cooperative response to conflict, schools have to play a large part in the re-socialization efforts by integrating these important social skills into the curriculum from kindergarten to high school" (Medsion, 1991, p. 10).

Various schools are realizing the need for teachers, administrators, and support staff to acquire problem solving training. It is difficult for students to learn problem solving skills if the school climate only consists of pacifists and autocrats.

It is a necessity for teachers to institute classrooms that are contributory to learning. It's important that students must have a sense of the belonging to the school community and actively participate in the classroom decision making process. The empowerment of students is key to helping them think and resolve
conflicts in an appropriate manner. Empowerment is also essential to maintaining a high level of learning. Part of the problem is that we have preconceived notions about conflict resolution. Students' ideas for managing conflict seem to come primarily from the movies, media, television (Elliot, 1994; Johnson et al., 1992). Many students attempt to manage their conflicts either through the use of destructive strategies such as physical or verbal violence or by appealing to their teachers (Johnson et al., 1992, p. 90).

Ikram (1992) is in agreement with Johnson et al. (1992) concerning the failure of adults in effectively teaching acceptable conflict resolution strategies to today's children. Children are not typically informed about the nature of conflict, except in the historical context of how conflict has in the past led to revolution and war. This narrow perspective does little to give them a sense of the seriousness of conflict, and does not tend to make it relevant to their lives (Ikram, 1994, p. 44).

Schools have attempted to manage interpersonal conflicts among students, teachers, parents, and administrators by various models of discipline, such as referrals, to the principal's office, detention, suspension, and expulsion. Yet it does not appear that these methods teach students the problem solving and conflict resolution skills they need for life to resolve conflict in a productive, non-violent manner.
Dissatisfaction with the traditional processes established to settle disputes has led educators to new ways of conflict resolution such as mediation (Van Slyck, 1993).

Definition and Review of Process

Conflict is normal, natural part of everyday life. The word conflict has its roots in the Latin word conflictus, meaning “striking together”. Despite the violent overtones of the Latin translation, conflict and violence are not synonymous. However, unresolved or lingering conflict frequently leads to violence, interferes with productivity, and the quality of life in schools and community.
PEER MEDIATION PROGRAMS:

Mediation is a process for resolving disputes and conflicts in which a neutral third party acts as a moderator for the process. In mediation, the goal is to work out differences constructively. Mediation provides schools with an alternative to traditional disciplinary practices (Miller, 1994). The use of peer mediation in the schools is growing. Peer mediation programs, where students are trained generally to resolve disputes involving other students, have been shown to be an effective means of resolving disputes in school settings. Researchers believe that a school wide disciplinary plan helps to foster a caring student culture (Walker, Clovin and Ramsey, 1995; Aleem, Moles et al, 1993). The peaceful, classroom curriculum, classroom management, and school-or district-based programs are main entry points for conflict resolution in schools. Information and skills find their way into individual classrooms through social studies, English, literature, science and even math curricula, as well as through direct instruction in communication and cooperative problem solving (Lieber & Rogers, 1994; National Association for Mediation in Education NAME, 1994).

According to research success rates of 58% to 93% have been achieved at various
sites where success was measured by whether an agreement was reached and maintained at the time of a follow-up evaluation (Lam, 1988; Johnson, Johnson, and Dudley, 1992). There is anecdotal evidence that students transfer the mediation techniques learned at school to settings beyond the classroom. Students have reported using their mediation skills to resolve conflicts with siblings and in their community with peers (Johnson, Johnson, and Dudley, 1992; Bryant, 1992). Limited evaluation studies show positive trends related to aggression, student self-image and skills, and overall school climate (Lam, 1989; Metis, 1990; Lawton, 1994). However, the full benefits of conflict resolution in schools may depend on the inclusion of this subject in the curriculum; more comprehensive training; support of teachers, administrators, and parents at sites; and expansion from individual to school-and district-wide programs (Aleem, Moles et al., 1993).

**Current Research**

**Temple University Two Year Study**

According to sources at the Temple Times newspaper a newly formed consortium of Temple University faculty has embarked on a cross-disciplinary approach to issues surrounding conflict resolution and violence prevention. The consortium,
which includes faculty from several of the University’s schools and colleges, is
known as the Conflict Resolution Anti-Violence Effort (CRAVE). Three grants
have enabled the group to undertake two major projects.

Dr. Tricia S. Jones, associate professor and chairwoman of the rhetoric and
communication, is working with this team of researchers in examining the impact
of peer mediation programs on students attitudes and behavior in 36 schools in
Philadelphia and three other cities. This two year project is funded with a
$250,000 grant from the William and Flora Hewlett Foundation and a $150,000
award from the Surdna Foundation. Dr. Jones’ study, the Comprehensive Peer
Mediation Evaluation Project, considers the role played by age, gender,
race/ethnicity in analyzing the effectiveness of peer mediation. “To date, no
systemic research has been done to determine whether these programs really
make a difference”, “Lots of experts have been saying that they do. Now we hope
to come up with solid evidence”, Dr. Jones said. She and a team of researchers
from Temple have been working with the Philadelphia School district and the
Good Shepherd Neighborhood House to implement and evaluate conflict
resolution programs in 60 city schools. "Our initial results from this Philadelphia project have been encouraging," "In the first two years, 360 disputes were mediated with an agreement rate of 90 percent." The conflicts ranged from rumor to physical altercations. The consortium has also received a $100,000 grant from the U.S. Information Agency for a project in South Africa. Dr. Jones is assembling experts to develop and implement a grass-roots program in four Johannesburg high schools and neighborhoods for dealing with conflicts. There is a great deal of concern in South Africa with integration of the schools, where kids come face to face with diversity daily," remarked Dr. Jones.

U.S. Department of Education/Office of Special Education Four Year project

The project will present empirical evidence of the effectiveness of CR/PM use in schools to prevent or reduce children with emotional and behavioral problems from developing SED. The results of the study will enable educators to understand the specific characteristics and the necessary and sufficient components that make CR/PM effective and efficient.
CONFLICT RESOLUTION IN TEACHER EDUCATION

According to researchers the study of conflict and its resolution encompasses many fields.

Accordingly, teaching, research and writing occurs in many academic departments. Course materials typically draw from the social psychology, education, law, sociology, communication, and anthropology, as represented in foundation texts (Deutsch, 1973; Fisher & Ury, 1981, Axelrod, 1984; Hooker & Wilmot, Duryea, 1992).

Inservice Training

Conflict resolution in schools has grown rapidly. This fact makes inservice training a very important component of the process of conflict resolution. The National Association for Mediation (NAME) estimates that in 1984, the year of its founding, there were approximately 50 school-based conflict resolution programs. Eleven years later NAME estimates the number of programs at well over 5000.
One of those early programs was the Responding to Conflict Creatively Program (RCCP) sponsored by Educators for Social Responsibility, which now operates 300 schools nationwide. Other programs have expanded similarly.

The New Mexico Center for Dispute Resolution has carried out statewide school mediation programs for 10 years and currently involves over 30,000 students. Through the Community Board Program, three-fourths of San Francisco's schools have peer conflict managers (National Institute for Dispute Resolution NIDR, 1994; Inger, 1991).

Educators primarily learn about conflict resolution on their own through staff development programs. The issue of whether teachers can conduct peer mediation and other resolution programs without training is a central question. While mediation and peaceable school curricula are available to individual teachers, the authors encourage substantial training (Kreidler, 1984; Bodine et al., 1994; Schmidt, 1994). NAME provides a curriculum and program to train those interested in conducting staff development in schools (Townley & Lee, 1993).
Training is viewed as necessary due to the difficulty in changing attitudes and behavior. Without sufficient training to address teachers' own behavior, there is danger that the adults' words will not match their actions. Since modeling is essential, training is viewed as essential (Bodine et al., 1994; Lieber & Rogers, 1994; Miller, 1994).

Other issues arising in the preparation of inservice of teachers echo problems encountered in any change effort. They include the importance of principal leadership; the need for targeted follow-up support; the fit (or lack of fit) between program demands resources; and the need for systemic, school-wide change versus individual classroom change (Dejong, 1994; Lieber & Rogers, 1994).

SUMMARY:

Concern about violence in the school has made the study of conflict and conflict management an urgent matter for educators today. Mediation is one form of conflict management that is getting widespread attention from schools across America. Mediation involves a third person, called a mediator, who assist the disputants in resolving their problem with the consent of all parties. It offers a risk...
free way to settle disputes for the parties involved in the dispute. No agreement, No deal.

There is meaningful evidence that mediation techniques learned at school are transferable to settings beyond the classroom. All parties seem to benefit from the mediation training and conflict resolution process. Students who are taught the skills of mediating disputes learn practical skills which can be used beyond the classroom. Student mediators learn to listen, summarize, and think critically. Further they acquire the following skills: problem solving, leadership, to writing, and the ability to encourage useful discussion between disputants. Since mediation seeks to solve a dispute and prevent recurrence, student mediators learn to plan for the future. Students learn about responsibilities, the rights of others, and about consequences of choices (Johnson, Johnson, and Dudley, 1992).

Both mediator and disputant benefit from the mediation training and conflict resolution process. Students who are taught the skills of mediating disputes learn practical skills which can be used beyond the classroom. Student mediators learn
to listen effectively, summarize accurately, and think critically. Further, they develop skills on how to problem solve, to lead, to write, and to foster meaningful discussion among disputants (Johnson, Johnson, and Dudley, 1992).
CHAPTER 3
METHODOLOGY

SUBJECTS

Participants in the research were selected based on the following criterion: They were Junior students in the process of starting a school-based conflict management/peer mediation program within two weeks. The students were between the ages of twelve and eighteen years old, all had reading levels of 6th grade or higher. Both males and females were represented in the sample. The conflict management and peer mediation series consisted of five one-hour long weekly trainings over a four-month period, which lasted from November 1996 to March 1997. The students received information which was integrated into the social studies curriculum.

The subjects were 12-year-old and 6th-grade suburban middle school students. There were 21 subjects. The percentage of males was 57% and 43% were female.
Further, 100% were European American, 0% were African American, and 0% were Hispanic American. The subjects were from a suburban school district. The students were of varying and socio-economic backgrounds.

The subjects were drawn from a suburban school district in Southern New Jersey. The students' economic status ranged from low to high. Academically the students were grouped heterogeneously. Many of the students participated in gift and talented programs. There were no exclusions from the study. All students were allowed to participate.

Permission to test the student’s coping skills was obtained from the superintendent. Although, the study was conducted in a school setting it was not necessary to obtain parental consent because student responses and identities were kept anonymous. However, a letter was sent to the superintendent and school principal explaining the purpose of the study and an overview of what the student’s participation would entail.
DESIGN

The study is designed as a pre-test post-test. The independent variable was whether the conflict resolution/peer mediation training effected the students' CRI scores. The design of the study is to evaluate student's coping styles before and after a conflict resolution program intervention. The pre-test and post-test inventory served as the dependent variable to assess the students' coping skills.

INDEPENDENT VARIABLE

The independent variable was whether or not the conflict resolution/peer mediation training effected the students' coping skills. The 6th grade middle school class was administered the Coping Response Inventory(CRI) prior to receiving the Conflict resolution training. The conflict management and peer mediation series consisted of three one half hour long weekly trainings over a four month period, which lasted from November 1996 to March 1997. The program provided a specialized outline to help direct the learning. The students receive information which was integrated into the social studies curriculum. The conflict resolution/peer mediation session began by setting an agenda and discussing the goals and purpose.
of the program. Students were encouraged to make appropriate or necessary changes in the agenda. The students had the opportunity to share information about themselves and to express problems, concerns or ideas. The students were encouraged to actively participate in discussions and activities focusing on a topic choice. A summary followed each session. Finally a closing activity ended the series. The Conflict resolution/peer mediation program was designed to empower students by giving them the tools to challenge and solve problems. The program focuses on the following areas: affirmation, communication, conflict resolution, cooperation, and bias awareness/appreciation of differences. The program was monitored by the Coping skills Response Inventory, which was designed to measure and assess students' coping skills in stressful situations.

DEPENDENT VARIABLE

The dependent variable was the measured outcome response of students after the conflict management/peer mediation intervention. The pre-test and post-test scores on CRI were compared. The Coping Responses Inventory (CRI) (Appendix B) was designed by Rudolf H. Moos Ph.D. and published by PAR Psychological Assessment Resource Inc. (1993). This brief self-report inventory identifies the cognitive and behavioral responses of an individual coping with a recent problem
or stressful situation. The CRI-youth form is a measure of eight different types of coping responses to stressful life situations. Eight scales are used to measure the responses: 1.) Logical Analysis, 2.) Positive Reappraisal, 3.) Seeking Guidance and support, 4.) Problem Solving, 5.) Cognitive Avoidance, 6.) Acceptance, 7.) Seeking Alternative Rewards and 8.) Emotional Discharge.

CRI INVENTORY

The inventory was an ordinal measurement. Students responded to 58 questions. The responses were 0 = definitely no, 1 = mainly no, 2 = mainly yes, 3 = definitely yes for the first ten questions and 0 = no, not at all; 1 = yes, once or twice; 2 = sometimes; 3 = yes, fairly often. The CRI is often used in stress management education programs. The inventory identifies and monitors coping strategies in adolescents. It also evaluates the outcome of treatment interventions.

The pre-test and post-test CRI scores were compared. The group mean scores for each test period was determined before and after the four month training session training. The evaluator was looking for changes in the mean scores in the direction indicating stable, positive or negative impact. The pre-test CRI inventory scores
provided a baseline of data for the group in which post-test scores could be compared.

**TESTABLE HYPOTHESIS**

**Hypothesis**

**NULL** $H_0: M_2 - M_1 < 0$

States that the conflict resolution/peer mediation program will not have a significant effect on the student's CRI scores.

**Legend:** $M_1 =$ pretest mean, $M_2 =$ post-test mean

**ALTERNATIVE** $H_1: M_2 - M_1 > 0$

States that the conflict resolution/peer mediation program will have a significant effect on the student's CRI scores.

**Legend:** $M_1 =$ pretest mean, $M_2 =$ posttest mean
ANALYSIS

Students’ coping skills were evaluated for significance through a t-Test for paired Samples.

The t-Test compared the mean scores of the pre-test and post-test for the group before and after training to determine any significant difference on the fifty-three item inventory.

SUMMARY

The study was designed as a pre-test/ post-test Coping Response Inventory that was analyzed using a T-test for paired samples. The results may or may not indicate that there was a significant change in the coping response of the subjects after receiving the Conflict Resolution/Peer Mediation program. The results may or may not indicate that students' pre-test CRI and post-test scores are moving in the positive direction towards the Ideal CRI scores.

Objective:

Measure the effectiveness of a Conflict Resolution Program in a middle school by
studying student's coping skills before and after participation in a conflict resolution / peer mediation program.

Goals:
1. To measure student's CRI scores responses prior to the administration of the behavioral treatment e.g. conflict resolution/ conflict resolution / peer mediation program.
2. To measure student's Pre-test CRI scores responses against Ideal CRI scores responses.
3. To measure student's post-test CRI scores responses after the administration of the conflict resolution/ conflict resolution / peer mediation program.
4. To measure student's Post-test CRI scores responses against Ideal CRI scores responses.
5. Compare Pre-test CRI score responses against post-test CRI score responses and Ideal CRI responses.
CHAPTER 4
ANALYSIS OF RESULTS

It is hypothesized that after receiving conflict resolution training the students would have better coping skill responses, than before they participated in the program. The students receiving the training would increase their overall mean scores from the pre-test to the post-test.

A t-test for paired samples was used to analyze the data from the group's pre-test and post-test. The t-test for paired samples compared the mean scores for the pre/post test for the trained group in table 4.1. The paired samples had a 2-tail significance of .000. Therefore, the null hypotheses was rejected.

The alternative hypotheses states that the group’s post-test mean score on the coping response inventory would exceed that of the pre-test. Therefore, The Ho: M2-M1 ≥ 0 was accepted hypotheses. Table 4.1 The t-test for paired samples compares the mean scores of the pre-test and post-test. Graph 4.1 illustrates a 3-dimensional view of the pre-test, post-test and ideal score responses. Graph 4.2 uses a bar graph comparing the three score responses. The post-test mean score increased by 7.9524 points overall.
SUMMARY

As hypothesized the results indicate that there was significant change in the coping response inventory scores from the pre-test to the post-test. The alternative hypotheses was accepted.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of Pairs</th>
<th>Corr</th>
<th>2-tail Sig</th>
<th>Mean</th>
<th>SD</th>
<th>SE of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Var000001</td>
<td>21</td>
<td>.378</td>
<td>.091</td>
<td>50.4762</td>
<td>3.669</td>
<td>.801</td>
</tr>
<tr>
<td>Var000002</td>
<td></td>
<td></td>
<td></td>
<td>58.4286</td>
<td>6.226</td>
<td>1.359</td>
</tr>
</tbody>
</table>

**Paired Differences**

<table>
<thead>
<tr>
<th>Mean</th>
<th>SD</th>
<th>SE of Mean</th>
<th>t-value</th>
<th>df</th>
<th>2-tail Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>-7.9524</td>
<td>5.912</td>
<td>1.290</td>
<td>-6.16</td>
<td>20</td>
<td>.000</td>
</tr>
</tbody>
</table>

95% CI (-10.643, -5.261)
SUMMARY

The basic topic of the thesis is Conflict Resolution. Over the years there has been an increase in violence among young people. Children are reacting to conflicts by striking out against one another. Schools are especially feeling the tension among the students and realize the need to empower the students to effectively resolve conflict and problems.

Administrators and teachers no longer wish to model an environment that acts as dictators or peacemakers. Instead, the goal is to develop programs which promote a trusting school environment. It is important that students have a sense of belonging so they can take an active role in community decisions. To achieve these goals the Children's Creative Response to Conflict was established in 1972. This New York based program's primary focused was on students, teachers and administrators. The participants were provided with the necessary skills, knowledge, and tools needed to implement an effective...
program. This New York model was used as the model for Moorestown conflict resolution/ peer program.

To determine the effectiveness of conflict in the middle school a study of student’s coping skills before and after participation in a conflict resolution / peer mediation program was conducted. The primary purpose of the study is to evaluate student’s coping styles. The 6th grade middle school class was administered the Coping Response Inventory (CRI) in November prior to receiving the Conflict resolution training and again in March. The Conflict resolution/peer mediation program was designed to empower students by giving them the tools to challenge and solve problems. The program focuses on the following areas: affirmation, communication, conflict resolution, cooperation, and bias awareness/ appreciation of differences. At the end of the four month period, the pre-test and post-test scores were calculated to determine the average mean scores. The study was designed as a pre-test/ post-test Coping Response Inventory that was analyzed using a T-test for paired samples. The results may indicate that there was a significant change in the coping response of the subjects after receiving the Conflict Resolution/Peer Mediation program.
CONCLUSION

The following conclusions were drawn from the analysis results:

1. The Null Hypothesis stated that no difference would be found on the measure used to evaluate students’ coping responses between the pre-test and post-test CR1 scores. The paired samples had a 2-tail significance of .000. Therefore, the null hypotheses was rejected.

2. The alternative hypotheses states that the group’s post-test mean score on the coping response inventory would exceed that of the pre-test. Therefore, the Ho: M2-M1 ≥ 0 it was hypothesized that after receiving conflict resolution training the students would have better coping skill responses, than before they participated in the program. The students receiving the training would increase their overall mean scores from the pre-test to the post-test. The alternative hypotheses was accepted. Chart 4.1 compares the mean scores of the pre-test and post-test. The post-test mean score increased by 7.9524 points overall.
DISCUSSION

The study showed the that conflict resolution program had on the participants. Fortunately the data analyzed did suggest a significant change in the coping skill responses over a four month period of time. A factor that may have played a role was the fact that the conflict resolution coordinator has implemented the program to students for over seven years. The results indicate that there was significant change in the coping response inventory.

The school district has plans to implement this program district wide. Currently, the high school and all three middle schools are utilizing the program. Because mediation tries to settle a dispute and hinder recurrence, student mediators learn to plan for the future. The students learn about responsibilities as well as the rights of others, about consequences of choices. More importantly maybe for the first time in their lives, they learn non-violent ways that they can choose to resolve their conflicts. They learn they can succeed at resolving conflicts peaceably, that they can resolve problems without resorting to violence. They also develop a capacity to empathize with others.
IMPLICATIONS FOR FUTURE RESEARCH

1. A comparison of student coping responses in districts that have implemented Conflict Resolution/ Peer Mediation programs district wide with districts that are still using tradition methods to deal with conflict.

2. Comparing coping responses of students within a school district.
REFERENCES


Two resources for additional information are:

* National Association for Mediation in Education, 205 Hampshire House, Box 33635, University of Massachusetts, Amherst, MA 01003-3635. (413) 545-2462.

* National Institute for Dispute Resolution, 1726 M Street, N.W., Suite 500, Washington, DC 20036. (202) 466-4764.
APPENDIX A

SAMPLE REPORT

*** COPING RESPONSES INVENTORY - YOUTH FORM (CRI-Youth)***

Professional Report developed by

Rudolf H. Moos, Ph.D.

Client Information

Grade in School : Sixth
Class : Fall 1996
Gender : Males/ Females
pre-test : 1
Chronological Age : 12
Ethnic Group : Caucasian

Prepared For: Tammy Hobbs
Test Date : 11/19/96

Focal Stressors - "Death of a grandparent, car accident, moved to new area, best friend relocated, divorcing parents, physical altercation with classmate, sick family member or pet, mom has new boyfriend, dog ran away, received a failing test grade, sustained bodily injury."
Overview of This Report

This interpretive report is designed to help professionals understand and use CR1-Youth results and present them to their clients. The report is based on empirical findings and other published information. It includes the client’s CR1-Youth profile, specific descriptions and analyses of the client's scale scores, including the adaptive and maladaptive potential of coping responses, and an analysis of the client’s appraisal of the focal stressor. The report ends with a discussion of the client’s general pattern of coping. Each scale description in this report gives one, two, or three examples of CR1-Youth items that contributed to the score and explains how the respondent answered those items. To facilitate comparisons among scales and with the normative group, T scores (N=50; SD = 10) and percentile ranks are presented on the CR1-Youth Profile. The respondent's scores are compared with those of a normative group of 400 youth.

This interpretive report complements but does not replace the CR1-Youth Form Professional Manual. Refer to the Professional Manual for more information about the inventory’s development, normative data, psychometric qualities, interpretation, and clinical and research applications.
The Approach Summary Index (ASI) and the cognitive Summary Index (CSI) measure relative reliance on approach versus avoidance coping and on cognitive versus behavioral strategies respectively. The ASI is the sum of the T scores of the four approach scales divided by the sum of the T scores of all eight scales. The CSI is the sum of the T scores of the four cognitive scales divided by the sum of the T scores of all eight scales. The criteria for comparing the respondent's ASI and CSI with the normative group of 400 youth are the same as those used in interpreting the T scores for CR1-Youth scales.

Logical Analysis (LA) (42; somewhat below average)

The Logical Analysis scale measures attempts to understand a stressor and its outcomes. Compared with other youth, the clients were somewhat below average in his use of logical analysis. For example, they never thought about new hardships that would be placed on them and only once or twice they think of different ways to deal with the problem.
Positive Reappraisal (PR) (50; average)

The Positive Reappraisal scale taps attempts to look at a problem in a positive way while still accepting the reality of the situation. They were average in the use of positive reappraisal when compared with other youth. For example, sometimes they told themselves things to make themselves feel better.

Seeking Guidance and Support (SG) (47; average)

The Seeking Guidance and Support scale assesses attempts to seek information, guidance, and support, and is often an important part of managing a stressful situation. The clients' score suggests that they were average in how much guidance and support they tried to get when facing the focal problem. For example, sometimes they talked with a parent or other family member about the problem.

Problem Solving (PS) (49; average)

The Problem Solving scale measures attempts to take action to deal directly with the focal problem or its aftermath. They were average in their use of problem-solving action. For example, sometimes they decided on one way to deal with the problem and did it.
Avoidance Coping Responses

Cognitive Avoidance (CA) __ (51: average)

The Cognitive Avoidance scale measures attempts to avoid thinking realistically about a problem. These may include denying or minimizing the problem or its outcomes. The clients' score suggests that the use of cognitive avoidance was average. For example, sometimes they tried not to think about the problem.

Acceptance or Resignation (AR) (56; somewhat above average)

The Acceptance or Resignation scale assesses attempts to accept the focal problem as a situation that cannot be changed. This type of coping includes coming to terms with a situation and accepting it as it is. Acceptance or resignation also includes deciding that nothing can be done to change either the problem or the circumstances.

In managing his focal problem, the respondent was somewhat above average in his use of acceptance or resignation. For example, sometimes they felt that time would make a difference—that the only thing to do was wait and sometimes they realized that they had no control over the problem.
In general, the more a person uses acceptance or resignation, the less likely he or she will resolve the problem. The person is also more likely to feel depressed, have physical symptoms, and be less self-confident. Still, acceptance or resignation can help a lot when a person cannot do anything to make the situation better. Sometimes a person cannot stop something bad from happening, for example, when a family member is very ill and going to die soon. At these times, accepting the situation can help a person let go of the problem and not feel as bad. Sometimes the person will feel at peace with the situation. After accepting a tragedy, many people can start to use problem solving to cope with the consequences of the problem.

Seeking Alternative Rewards (SR) (44, somewhat below average)
The Seeking Alternative Rewards scale measures attempts to replace the losses involved in some stressful situations by getting involved in other activities, doing more of the things one likes, or finding new things that are satisfying. When responding to their focal problem, they were somewhat below average in seeking alternative rewards. For example, they never got involved in new activities and they never read more often for enjoyment.
Emotional Discharge (ED) (42: somewhat below average)

The Emotional Discharge scale measures attempts to reduce tension by expressing anger, despair, and other feelings. This type of coping also includes doing things that may get rid of tension for a while, such as eating or smoking more or getting angry at people who are trying to help. The respondents' score on this scale is somewhat below average. For example, they never took it out on other people when they felt angry or sad and they never took a chance and did something risky.

Focal Stressors

In their own words, the respondents described their problems or situations as "Death of a grandparent, car accident, moved to new area, best friend relocated, divorcing parents, physical altercation with classmate, sick family member or pet, mom has new boyfriend, dog ran away, received a failing test grade, sustained bodily injury."

They reported that they had not faced a problem like this before, did not know that this problem was going to occur, they did not have enough time to get ready to handle it. People who do not have enough time to prepare for a stressful situation tend to use avoidance coping, especially cognitive avoidance, acceptance or
resignation, and emotional discharge. When the problems occurred, the respondents saw it as neither a threat nor a challenge. They stated that the problem was not caused by something they did or by something someone else did. They also reported that nothing good came out of dealing with the problems. At the time that the CRI was completed, the problem had been resolved and turned out "all right" for them.

Patterns of Coping

The respondents tended not to use any of the four sets of approach coping responses. But they did use Cognitive Avoidance and Acceptance or Resignation. In general, people who use more avoidance coping, particularly cognitive avoidance and emotional discharge, are less likely to resolve stressors and adapt well. When problems can be changed, more use of approach responses and less use of avoidance responses are likely to lead to better resolution of the problem and better adjustment. Still, avoidance coping strategies may be good in the short term, especially when they give a person time to realize how bad the problem is and to express feelings about it. Avoidance coping can also help when the problem seems overwhelming or cannot be changed.
Additional Sources of Information

Administering the Ideal Form of the CR1-Youth will show what the respondent thinks is the best way for him to manage an important problem that recently occurred. Comparing the Actual and Ideal profiles will reveal the areas and extent of their dissatisfaction with his coping responses and can help to identify ways to enhance his ability to cope with problems more successfully. In clinical contexts, this information may be used for treatment assessment and programming.
### Sample CR1 Youth Profile

<table>
<thead>
<tr>
<th>T Score</th>
<th>Considerably Above</th>
<th>Above</th>
<th>Average</th>
<th>Below</th>
<th>Average</th>
<th>Somewhat Below</th>
<th>Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>70+</td>
<td></td>
<td></td>
<td>60</td>
<td>50-</td>
<td>*</td>
<td>40</td>
<td>30-</td>
</tr>
</tbody>
</table>

#### Approach

<table>
<thead>
<tr>
<th>Raw Score</th>
<th>T Score</th>
<th># Missing Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 8 5 8 3</td>
<td>42 50 47 49 51</td>
<td>0 0 0 0 0</td>
</tr>
</tbody>
</table>

#### Avoidance

<table>
<thead>
<tr>
<th>Raw Score</th>
<th>T Score</th>
<th># Missing Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 8 5 8 3</td>
<td>42 50 47 49 51</td>
<td>0 0 0 0 0</td>
</tr>
</tbody>
</table>
Approach Summary Index (ASI) = 49 (Average)
Cognitive Summary Index (CSI) = 52 (Average)

The Approach Summary Index (ASI) and the Cognitive Summary Index (CSI) measure relative reliance on approach versus avoidance coping and on cognitive versus behavioral strategies respectively. The ASI is the sum of the T scores of the four approach scales divided by the sum of the T scores of all eight scales. The CSI is the sum of the T scores of the four cognitive scales divided by the sum of the T scores of all eight scales. The criteria for comparing the respondent's ASI and CSI with the normative group of 400 youth are the same as those used in interpreting the T scores for CR1-Youth scales.
APPENDIX C

CHECK LIST FOR MEDIATION

Trained mediators follow a simple procedure, such as the model outlined below from the American Bar Association (Wolowiec, 1984).

Part I. Introduction

1. Have participants introduce themselves
2. Explain the mediator’s role
3. Explain the ground rules. An example of a good ground rule is: Respect each other.
4. Explain steps of mediation
5. Ask for any questions before you begin.

Part II Telling the story

1. Both parties tell their side of the story to the mediator.
2. Summarize both parties side of the story.
3. Make sure you understand the conflict.
4. Make sure the parties understand the conflict.

Part III Identifying Facts and Feelings

1. Parties tell their side of the story to each other.
2. Bring out the facts and feelings of what the parties say.
3. Have parties change roles.
4. Summarize the facts and feelings of both sides.

Part IV Generating Options

1. Ask both parties how they can solve the problem.
2. Write down the solutions.
3. Check off the solution(s) in which both parties agree.
Part V Agreement

1. Use only the solutions in which both parties agree.
2. Write the contract up in parties' own words.
3. Everybody signs contract.

Part VI Follow Up

1. Explain how follow-up works
2. Remember to thank the people for being there and for letting the mediation process service help them.
APPENDIX D sample:
CRI-YOUTH ANSWER SHEET

<table>
<thead>
<tr>
<th>Part I</th>
<th>Describe the problem or situation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN</td>
<td>Definitely No</td>
</tr>
<tr>
<td>MN</td>
<td>Mainly No</td>
</tr>
<tr>
<td>MY</td>
<td>Mainly Yes</td>
</tr>
<tr>
<td>DV</td>
<td>Definitely Yes</td>
</tr>
<tr>
<td>1.</td>
<td>Have you ever faced a problem like this before?</td>
</tr>
<tr>
<td>2.</td>
<td>Did you know this problem was going to happen to you?</td>
</tr>
<tr>
<td>3.</td>
<td>Did you have enough time to get ready to deal with this problem?</td>
</tr>
<tr>
<td>4.</td>
<td>When this problem happened, did you think of it as a threat?</td>
</tr>
<tr>
<td>5.</td>
<td>When this problem happened, did you think of it as a challenge?</td>
</tr>
<tr>
<td>6.</td>
<td>Was this problem caused by something you did?</td>
</tr>
<tr>
<td>7.</td>
<td>Was this problem caused by something someone else did?</td>
</tr>
<tr>
<td>8.</td>
<td>Did anything good come out of dealing with this problem?</td>
</tr>
<tr>
<td>9.</td>
<td>Has this problem or situation been worked out?</td>
</tr>
<tr>
<td>10.</td>
<td>If the problem has been worked out, did it turn out all right for you?</td>
</tr>
</tbody>
</table>

Part 2

| N = No, Not at all 0 Yes, Once or twice S = Yes, Sometimes F = Yes, Fairly often |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 17 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 18 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 19 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 20 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 21 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 22 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 23 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 24 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 25 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 26 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 27 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 28 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 29 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 30 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 31 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 32 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 33 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 34 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 35 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 36 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 37 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 38 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 39 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 40 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 41 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 42 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 43 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 44 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 45 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 46 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 47 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 48 |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

64