# INFORMATION TO USERS

COMPUTER-ASSISTED PEER
MEDIATION

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A Thesis

Presented

to the Faculty of

California State University Dominguez Hills

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In Partial Fulfillment

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In

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by

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THESIS:    COMPUTER-ASSISTED PEER MEDIATION

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# ABSTRACT

Computer-Assisted Instruction may be effectively used in developing peer mediation skills among elementary students. A peer mediation computer program, named *Compton Mediators*, was developed using *Macromedia Director*. *Compton Mediators* includes sound, video, animations, text, interactive feedback, and assessments. Data was collected from students who participated in a pretest before they used *Compton Mediators* and then a post-test. The analysis of data from the evaluation of *Compton Mediators* demonstrated that Computer-Assisted instruction is an effective method of teaching peer mediation skills.

# CHAPTER 1

## INTRODUCTION

### Statement of the Problem

The *Compton Mediators* lesson is designed to improve the ability of

elementary school students to manage conflicts. It should supplement a

comprehensive peer mediation program that includes a facilitator's guide,

readings, lectures, video, and simulations. Students who complete *Compton*

*Mediators* (see Appendix A for Courseware Evaluation) will be able to use the

mediation process to find peaceful resolutions to peer conflicts.

### Literature Review

Many alternative dispute resolution programs have developed curriculum

for children to manage conflicts as peer mediators. The curriculum ranges from

preschool to doctoral level studies in negotiation and conflict management.

According to *the Conflict Resolution Start-Up Manual of the Los Angeles Unified*

*School District* (Mills, 1991, p. 6), the goals of a peer mediation program are:

1. To decrease tension, hostility and violence in the school.

2. To enable students to build a stronger sense of cooperation and community at the school.

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3. To teach students communication, problem solving, and conflict resolution.

4. Enable students to exercise responsibility for improving their school environment.

According to the Conflict Resolution Education Network (CREnet) "there are over 8,500 school-based conflict resolution programs in the United States, located in the nation's 86,000 public schools" (www.crenet.org/cren/history, 1996). The CREnet is a clearinghouse of information and research for the National Institute for Dispute Resolution. The CREnet asserts the positive effects of conflict resolution programs in school are: less physical violence, less disruptive behavior, improved academic performance, kids empowered to solve their own problems, and development of student leadership skills.

The *Fourth R Newsletter* from CREnet devoted its Winter 1997 issue to Conflict Resolution and Technology. This newsletter's articles explored mediation skills taught with video, CD-ROM, Internet, and Visual Media technologies. Unfortunately, no other authors cite research showing the effectiveness of integrating Computer-assisted instruction into conflict management training. Because few (Conflict Smarts and Compton Mediators) conflict management programs include computer-assisted instruction, there is a lack of research showing the effectiveness of these programs. Therefore, we must look at the effectiveness of Computer-Assisted Instruction (CAI) applied to other subjects.

A comprehensive study of *Conflict Resolution Programs in the Elementary and Secondary Schools: A Review of the Research*, was conducted by David W. Johnson and Roger T. Johnson of the University of Minnesota (1996). The Johnson brothers have conducted much research and written many books on conflict management and cooperative learning. Johnson and Johnson classify conflict resolution programs into the following approaches: the Cadre approach, the Total Student Body Approach, Curriculum Based programs, Peer Mediation programs, Skill-Oriented approach, Academically Orientated approach, and the Structural Change approach. Their research shows conflict management programs positively affect: quality of resolutions, academic achievement, student's attitude towards conflict, school climate, self-esteem, and reducing discipline problems. Johnson and Johnson reviewed research comparing the effectiveness of many different conflict management training programs. Unfortunately, Johnson and Johnson reviewed no research about computer-assisted peer mediation training.

Most peer mediation training models include: discussing concepts and terms related to conflict resolution, reviewing case studies, lectures about the mediation process, participation in role plays, and documenting conflicts. Neither the National Institute for Dispute Resolution (Girand and Koch, 1996) or the Department of Justice (1996) conflict resolution in school directories had any reference to CAI.

Many recent studies have concluded that CAI is an effective

Instructional tool. According to Archer, "New research on technology's

effectiveness in teaching math appears to confirm what many educators have

optimistically suspected: Computers can raise student achievement and even

improve a school's climate" (1998, Education Week, p. 7). The design of the

computer program, the teacher's computer skills, and the subject being

instructed are significant factors in the effectiveness of CAI.

*The Report to the President on the Use of Technology to Strengthen K-12*

*Education in the United States*, published in March 1997, used a meta-analytic

technique to evaluate the effectiveness of CAI. The researchers who conducted

the meta-analysis reviewed dozens of studies to arrive at a quantitative

assessment of tutorial-based, CAI within the field of education. The report cited

a positive correlation between the use of CAI and student achievement. The

report concludes, "in addition, students using such systems have generally been

found to learn significantly faster, to enjoy their classes more, and to develop

more positive attitudes toward computers" (1997, p. 8.1). A similar study,

*Fostering the Use of Educational Technology: Elements of a National Strategy*

conducted by the RAND Corporation, also used a meta-analytical model to show

a correlation CAI and improved instruction. These reports looked at the general

effectiveness of tutorial-based Computer-Assisted instruction, but they did not

evaluate the specific effectiveness of using computer tutorials for training peer mediators.

## Courseware Review

There is one software program, *Conflict Smarts* (see Appendix B for Courseware Evaluation), which uses computer-assisted instruction to teach conflict management skills. The content of *Conflict Smarts* presents many different methods of managing conflicts. The program lists many decision-making options students may make and the consequences of each decision. *Conflict Smarts* is an effective program to teach the basic concepts of communication and conflict resolution. However, it does not include details about the mediation process.

## Courseware Review Summary and Evaluation

Peer mediation software is needed to reinforce traditional training models. This software can give individual instruction and prepare students to master the assessments required for them to mediate conflicts among students. CAI is an effective means of supplementing any peer mediation program. According to statistics by the National Institute for Dispute Resolution, active peer mediation programs have grown from approximately 2,000 in 1992 to 8,500 in 1997. Each of the programs need training materials and must select among one of the many peer mediation training approaches. Many organizations have manuals, role-

playing packages, videos, and consultants to provide peer mediation training to schools. Given the proven effectiveness of CAI and the growing demand for peer mediation training materials, there is a need for Computer-Assisted peer mediation training software.

## Rational and Objectives of the Evaluation

This study evaluates the effectiveness of the *Compton Mediators* program. The hypothesis is that CAI may effectively supplement an existing peer mediation program. The study will also provide feedback necessary to make improvements in the instructional design of the *Compton Mediators* for improvements in future versions of the program.

CHAPTER 2

METHOD

Population

The *Compton Mediators* program was tested on 3rd and 4th grade students

at Laurel Street Elementary School in Compton. The students were between

seven and ten years old. All of the students were either African-American or

Mexican-American. The city of Compton is notorious for having high crime

rate, lots of gangs, and a high murder rate. The area around Laurel Street School

has gang rivalries between the One-Five-Five (155th Street), the One-Five-One

(151st Street), and the West Side CRIPS. Gang Graffiti is painted on the wall of

Laurel School on a regular basis. Many students have older brothers, sisters, and

parents who are involved in gangs, incarcerated, or victims of gang violence.

Compton had one of the lowest average household income levels in Los

Angeles County during the 1990 census. The average household income was

$24, 971. According to the California Employment Development Department,

the March 1999 unemployment rate in Compton was 12.8 percent. Compton

jobless rate is much higher than Los Angeles County's 6.5 percent or California

State rate of 5.8 percent. According to a 1995 report by the U.S. Department of

Housing and Urban Development, Compton has a significant homeless

population, many abandoned houses, and poor community infrastructure.

Laurel Street Elementary School is one of twenty-three elementary schools

in the Compton Unified School District. Compton Unified School District has

been under state receivership since 1993 because of low student achievement and

lack of fiscal control. The total enrollment of Laurel Street Elementary School is

373, which includes preschool through fourth grade. The school has a wide

range of socioeconomic and academic levels. In addition, Laurel has Limited

English Proficient students, Fluent English Proficient students, Gifted students

and Special Education students.

The CBEDS indicates a K-4 population at Laurel in October 1998.

Table 1

Laurel CBEDS Data 1998

| ETHNICITY | NUMBER | PERCENTAGE |
|---|---|---|
| Hispanic | 322 | 86.3% |
| African American | 48 | 12.9% |
| Pacific Islander | 1 | .2% |
| Filipino | 0 | 0% |
| White | 2 | .4% |
| Other | 3 | .6% |
| Total | 373 | 100% |

The Laurel Community has been working towards improved performance on standardized tests. In the past three years, they have gone from having some of the lowest scores in the district to having among the highest. There is a significant drop in scores when students move from the third to fourth grades. Furthermore, as the students become older they become more aware of the dismal social conditions in their community.

## Sample

Laurel Street Elementary School has maintained a peer mediation program since 1994. Approximately thirty peer mediators have been trained each year and have been assigned to monitor playgrounds. The mediators received sixteen hours of training that was modeled from guidelines of the National Association for Mediators in Education (NAME), the National Institute for Dispute Resolution (NIDR), LAUSD Conflict Managers Start-up Manual, and Students Promoting Alternative Resolutions to Conflict (SPARC). The students have filled out Mediation Intake Forms that document the types of conflict and resolutions. The students selected for the study are either trained peer mediators or interested in becoming mediators.

## Materials and Apparatus

The *Compton Mediators* program tested in this study is a tutorial for 3rd through 5th graders about the mediation process. The information provided is

repeated several times and all major concepts are evaluated. Students receive feedback on all correct answers and must repeat or go to a remedial section on wrong answers. When a student gets a correct answer a summary is provided in a pop up window. The program includes sound, video, and text during the tutorials. Teachers can reduce the number of sections students must complete. The outside content consists of role-plays, mediation intake forms, and lessons from other mediation training programs. The content is relevant to many peer mediation models.

The Compton Mediation program began with a *Hyperstudio* project among the Laurel Peer Mediators. The program was developed on a Power Macintosh 5400. The researcher was experimenting with having some of the more experienced mediators helping train the new mediators. Peer mediation is a process that empowers students to manage their own conflicts, so it was hoped they could take some ownership in teaching each other conflict resolution skills. Some of the completed Mediation Intake Forms were distributed and the types of conflicts students managed were discussed. The students wrote scripts from recent mediations, and the researcher recorded reenactments on videotape. The researcher used a capture card to put the video into digital format in the computer. The researcher worked with the students to put the videos in sequence with captions describing the mediation process on a Hyperstudio stack.

The *Hyperstudio* program evolved into a *Macromedia Director* project. This phase of the project began on a Motorola StarMax 3000 Macintosh compatible computer. It was completed on a Macintosh Powerbook G3. The researcher used many sources to develop the sequence of the storyboard and the curriculum of the *Director* project. Some of the material came from completed Mediation Intake forms at Laurel Street Elementary School. The Mediation Intake form also lists the steps of the mediation process. The sequencing of lessons followed the same sequence the researcher used in training the student mediators at Laurel Street Elementary School. The researcher used lessons from many different programs such as SPARC, NIDR (1996), Johnson and Johnson (1996), Kreidler (1984), Sunburst Communications (1995), The Conflict Center (1991), and Spensor Kagan (1994).

Creating a peer mediation program is a very complex and time-consuming process. On one hand, the curriculum and evaluation must be planned on a storyboard. The presentation design must be planned to make the program easy to use. Task analysis must be used to ensure an effective sequence of the lesson. Students must receive feedback on their progress, remedial paths reinforce concepts they have not mastered, and a final evaluation shows a student has graduated from the program. On the other hand, the program must be entertaining and motivate students to learn mediation concepts. Cast

members and behaviors must be thematically related to the concept of conflict resolution.

To make the program entertaining, the experimenter developed many different characters and scenes for the *Compton Mediation* program. The background is a classroom made in *Macromedia Extreme 3-D*. The surface of the classroom is green walls with purple peace signs rendered with *Adobe PhotoShop*. *Extreme 3D* and *Photoshop* were also used to create the animated characters: a talking peace sign, a peace hand, Easter Island Stones, and the Ostrich. The character surfaces included a scanned banana peel for skin and raw meat for lips. *Sound Edit 16* was used to modify voices of the characters and for the text reading. The sound effects came from the *Earshot* sound collection. The mountains and sky background was made with *KD Bryce*. Creating the cast and directing sprite behavior is very time consuming, it took over 200 hours to put the whole *Director* score together.

*Compton Mediators* begins with the credits page that lists all of the software and resources used to create the program. A screen appears where the student is prompted to enter their name and is given the choice of taking a pretest. The name is used at the end of the pretest, on the main menu, and on the certificate at the end of the program. The pretest consists of ten questions where students have the option of choosing true or false. At the end of the pretest, students are

given their score with their name. If the students choose not to take the pretest they will go directly to the main menu.

The main menu has a list of all fifteen tutorial sections and dilemmas the students must answer. The students may choose the sequence of their lessons. Each section and dilemma is checked when it has been completed. The student's name and score is displayed on the main menu. The menu also has a gateway into the teacher's menu. The teacher may add points to the student's score. The main menu gives the students an opportunity to quit the program and their current score will be printed. Students are given an opportunity to return to the main menu at the end of each section.

Each section has a video clip with sound of students modeling a step in the mediation process. The video has subtitled text to clearly define what is being said for the visual learners. The video uses the QuickTime video controls so students may rewind the video and adjust the sound. There is text at the top of the section describing the step or concept of mediation. The students are given the option of answering a test question or having more practice. The sections in the program are:

1. Introductions: when mediators and disputants introduce themselves.

2. Willing: mediators ask disputants if they are willing to manage the conflict.

3. Rules: mediators describe the four rules of mediation.

4. Agree: mediators ask disputants if they agree with the rules of mediation.

5. Confidential: mediators describe the concept of confidentiality.

6. Process: mediators describe the mediation process to the disputants.

7. Listening: reviews the concept of active listening.

8. Details: teaches mediators how to get more details about a conflict.

9. Conflict: teaches mediators to identify different types of conflict.

10. Tactics: teaches the different tactics mediators and disputants may use.

11. Questions: describes questioning techniques mediators should use.

12. Clarify: describes the concept of clarifying what disputants have said.

13. Solutions: describes how disputants can discover solutions to their conflict.

14. Resolution: describes how a successful mediation will end.

15. Prevention: describes how to prevent future conflicts between the disputants.

Following each section, students are given a question. If the students answer correctly they will move on to the dilemma for the section. If the students answer incorrectly, they will move to a remedial path. The remedial path, or more practice sections, reviews the concept using animations. The animations are relevant to the section the student needs to practice. For example, an animation of an ostrich is used because it has a behavioral trait of burying its head in the ground when it is exposed to conflict. This humorous stereotype of

an ostrich comes from a lesson on defenses against conflict in *Peacemaking Made Practical* (Loescher, 1991). The animations humorously repeat concepts of mediation so students do not tire from the repetition. Furthermore, students enter an endless loop of remediation until they correctly answer the section.

After each question, students must answer a dilemma. These dilemmas give a situation where peer mediators must make a decision. The dilemmas are given in written and audio format. following is an example of one of the dilemmas:

> You are mediating a dispute between two disputants. When one of the disputants tells her side of the story, the other disputant does not seem to pay attention. She is looking around the room, playing with her hair, and yawning. What should you do?

The students are given several options to answer the dilemma. If the student answers the correct option, she then moves to the next section. If the answer is incorrect, she moves to the remedial path.

When the student has correctly answered all the section questions and the dilemmas, they will receive a peer mediation certificate of completion. The certificate automatically prints and the program quits. If the students quits before completing all of the sections, a summary will be printed of the questions they correctly answered.

Procedure

To test the program, students were pulled out of their classroom into the computer lab. The school counselor selected the students because they were either peer mediators or students who applied to the peer mediation program. All students met the entry requirements of the peer mediation program. These requirements included: having at least a "B" grade average, a recommendation by their teacher, no suspensions in the current year, and parental permission. The program was introduced to current mediators at their weekly meeting. They were told they would use a peer mediation computer program in the computer lab.

Once in the computer lab, the students were given a computer, headphones with volume controls, and the *Compton Mediator* CD-ROM. Four students were tested at a time. They were instructed how to click on the icons to get into the program. When they got to the prompt for the name, they were instructed to enter their name beginning with capital letters. The students were able to independently go through the pretest. Some students had trouble at the main menu, where they were instructed to click on the introduction checkbox. The most difficult skill for the students was operating the QuickTime Movie control bar. Students were able to independently complete the program after they learned how to operate the QuickTime Movie controls. During the testing, the experimenter was available to answer questions.

## Evaluation

Each mediator and mediator trainee was given the written pretest (see Appendix C) prior to beginning the Compton Mediator program. After each student completed the program, they were given the terminal tests. For the affective evaluation, the examiner asked each student if they enjoyed the program and how could it be improved. All of the students thought it was cool and they liked the program. Many students who had not participated in the study approached the experimenter and asked when they will be able to use the program.

CHAPTER 3

RESULTS

Presentation of the Findings

The hypothesis of this research is the *Compton Mediators* tutorial should

cause a significant increase in student's scores on an evaluation of peer

mediation skills. Twenty-five students were administered both a pretest and

post-test (see Appendix C) covering concepts of peer mediation before and after

the using the *Compton Mediators* program. The material in the evaluation was

related to the material in the *Compton Mediators* program. All students who used

the *Compton Mediators* program also participated in the evaluation.

Table 2

*Compton Mediators* Pretest and Post-test

| Compton Mediation | Pretest | Post-test |
|---|---|---|
| Mean | 9.08 | 11.24 |
| Standard Deviation | 3.44 | 2.42 |
| T-Test for Correlated Scores | | 3.89 |

Note. Sample Size = 25   Total Possible Score = 15

Twenty-five students participated in the Compton Mediation Study. The mean score went from 9.08 during the pretest to 11.24 during the post-test. The *Compton Mediators* CD-ROM caused an average of 24% growth on the evaluation. The standard deviation of scores declined from 3.44 on the pretest to 2.42 on the post-test. The reduction in standard deviation and the higher mean shows the student's scores clustered towards the maximum after using the *Compton Mediator* program. Therefore, students scored consistently higher on a peer mediation evaluation after using the *Compton Mediator* program.

## Data Analysis Procedures

The t-test for correlated scores showed it is likely the measurements composing the two groups are positively related. This shows that a significant gain in knowledge of peer mediation occurred for a group of 25 students following the *Compton Mediators* program.

The t-test for correlated scores is used to measure differences between the pretest and post-test scores. The t-score of 3.89 obtained in this study showed a significant mean difference between the pretest and the post-test. Therefore, the hypothesis that *Compton Mediators* causes a significant increase in a student's knowledge of peer mediation is valid.

## Affective Evaluation

The students also completed an affective evaluation (see Appendix D) that

measured how well the students received the lesson. The affective evaluation

has eight questions, four are open ended and four are multiple choice. Twenty-

two of the twenty five students who used *Compton Mediators* took the affective

evaluation. The closed ended questions allowed students to give an A-F letter

grade to how they feel about *Compton Mediators*. Each of the answers were

assigned grade points (A = 4, B = 3, C = 2, D = 1, F = 0) and averaged in table 1.

The grade points were added for each question, divided by the number of

students who answered the questions (22), and rounded to the nearest tenths

place. Overall the students gave high grades to *Compton Mediators*. All of the

grades assigned by the students ranged between "A" and "C." There were no

grades lower then a "C."

Table 3

Affective Evaluation of *Compton Mediators*

| Question | Grade Point Average |
|---|---|
| How easy was Compton Mediators? | 3.4 |
| How helpful was feedback from Compton Mediators? | 3.1 |
| How fun was Compton Mediators? | 3.4 |
| Final Grade for Compton Mediators: | 3.6 |

The students were also asked open ended questions about the *Compton Mediators* program. The students consistently described the program as easy to use. Eight of the twenty-two students remembered they had to repeat sections they answered incorrectly. Two students did not like having to repeat the sections over and over again. Seven students indicated the feedback helped them learn more about mediation. Thirteen of the participants suggested no improvements for program. The three suggestions that were repeated by the remaining nine students was that *Compton Mediators* could be improved by adding more activities, including some games, and having less questions. All of the students indicated either they would recommend the *Compton Mediators* to their friends, or it was fun. The results of the affective evaluation indicated the students enjoyed and felt they learned something from *Compton Mediators*.

CHAPTER 4

DISCUSSION AND CONCLUSIONS

Implication of Data

The statistical evaluation of *Compton Mediators* program indicated it causes

a significant increase in a student's scores on a peer mediation test. However,

there are several assumptions made during the data analysis that reduce the

validity of the hypothesis. There are also several revisions that need to be made

in the *Compton Mediators* so it will be a more effective tutorial. Some of these

revisions require the whole program be recreated from scratch. This chapter is a

review of the errors in the data analysis and recommended revisions for the

Compton Mediation program.

The statistical technique used in the analysis of data was the t-test for

correlated scores. The t-test uses a small sample size and predicts the probability

of statistical significance. The small sample size, twenty-five, creates a very large

margin of error. Furthermore, the validity and reliability of the t-test depends

upon a random sample. This sample was based on a biased selection by the

school counselor of students who are eligible to participate in a peer mediation

program. The single elementary school selected is in a district under state

control for low academic achievement and in a high crime area. Because the

study used a small sample from one elementary school in a troubled school district, the results may not be repeatable in a different school with a different sample size.

The only data analyzed was the difference and significance between a peer mediation pretest and post-test. A more comprehensive study would have included other variables, such as participant's: previous mediation experience, gender, age, racial-ethnic background, behavioral history, and social-economic background. *Compton Mediators* program may also be tested when used with several different peer mediation education models. These more comprehensive studies would require the program be tested in several schools among many different demographic areas.

The increase in test scores could also have been caused by a third antecedent variable. In some cases there were several weeks between the pretest and the post-test. Some students may have talked with each other about the program, received peer mediation training, forgotten what they had learned, or had lessons about conflict management as part of their regular curriculum.

The data analyzed in this study shows a correlation between using a peer mediation computer tutorial and an increase in scores on a peer mediation evaluation. Because the study used a small sample size at one elementary school, it cannot be used as meaningful study to generalize to other settings. The students indicated in the affective evaluation they enjoyed learning peer

mediation through computer assisted instruction. This study may be used as one

source in a more comprehensive study of the effectiveness of computer-assisted

peer mediation programs.

<div align="center">Revision of *Compton Mediators*</div>

Revising the *Compton Mediators* program may also increase its

effectiveness for tutoring mediation skills. Many improvements in instructional

content, instructional design, ease of use, management, motivation, and technical

aspects could be made. *Compton Mediators* should be developed to run on the

Microsoft Windows operating system. The tutorial could also be modified to run

as a *Macromedia Shockwave* file over the World Wide Web, or served over a

network. The *Compton Mediators* program will be revised to be a more effective

peer mediation training tool and reach a broader audience.

The instructional content may be improved by including a supplemental

training manual and a teacher's guide. Content will be improved by adding

remedial paths for each incorrect answer. The program will also be divided into

several levels of difficulty for various grades and for previous mediation

experience. An improved teacher menu will allow teachers to bypass lessons,

use only the tutorials for presentations, or quickly evaluate a student's mediation

knowledge. Connected lessons and role-plays will be developed so the students

can simulate each lesson. The program also needs to have a random database of

lessons, conflict simulations, and remedial paths to add variability for repeated users. The Peer Mediation Intake Form will also become interactive. A video will show a conflict, and peer mediators will be able to input the data into the input form. Improving the instructional content will be a process that requires more text written video captured, sound recorded, and scripts authored.

The instructional design of the *Compton Mediators* will also be revised. Students will receive more feedback following the pretest. Successful completion of sections of the pretest will be connected with appropriately placing students in the tutorial section. The program should also provide narrative feedback showing correct percentages of responses. The students will also be able to control the sound throughout the program. Key words have hyperlinks to a glossary to help students comprehend mediation concepts.

Improvements will also be made to make *Compton Mediators* easier to use and manage student progress. Menus will be used to save student files, print progress reports, navigate the program, view progress, and receive help. A database of user information will save student profiles so they may reenter the program at the same point they previously quit. Teachers will have access to the student files, so they can modify connected activities for program improvement. Improvements in the ease of use will require ongoing affective evaluations from students.

The *Compton Mediators* program will also include some interactive games and puzzles. These games and puzzles will review concepts of mediation and reward students as they progress through the program. A more innovative scoring system will be developed to motivate students.

The current version of *Compton Mediators* is a useful supplement to a controlled group of peer mediation programs. Revising the *Compton Mediators* program and improving the program evaluation is essential to making it a marketable program. It has a sound instructional design and will serve as a rough draft for future revisions. Future revisions of the program may take several years and require additional scriptwriters and assistance from graphic artists. In conclusion, integrating computer-assisted instruction into peer mediation training programs still remains an under-explored topic. More programs need to be created and evaluated before definitive conclusions correlating the effectiveness of Computer-Assisted peer mediation are made.

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APPENDIX A

Courseware Evaluation Form

Program Title: Compton Mediators
Type: __ Drill & Practice __X_ Tutorial __ Simulation __ Game
Appropriate for (grade level/subject): 3-5
Computer(s):Macintosh System Requirements: Power PC 603e processor w/16 Mb RAM, OS 7.5, Quicktime 3.
Publisher/Date: Not yet Published
Brief Description: The Compton Mediation software focuses on the process of peer mediation. It provides a pretest, video clips of the mediation process, and elaboration, and many mediation concepts. The users must answer questions and decide among options when given a dilemma.

Reviewer's Name/Review Date:
Reviewer's Position:
        _X_ Teacher (SPECIAL ASSIGNMENT)        __ Graduate Student
        __ University Faculty                __ Computer Coordinator
        __ Administrator                __ Other (  )

Was the review based on the direct observation of pupils?
        __ No        __ A single student   _X_ More than one (How many?25)

Rate your computer experience:
        __ Computer Novice     __ Intermediate User    _X_ Proficient User

Use the following 1-to-10 scale to rate this program on ALL areas of this form:
10 - One of the best executions of this feature I have ever seen.
 9 - Superior
 8 - Very well done
 7 - Well done
 6 - Better than average
 5 - Adequately done
 4 - Worse than average
 3 - Poorly done
 2 - Very poorly done
 1 - One of the worst executions of this feature I have ever seen.
 0 - Does not apply to this program.

Evaluation Summary:

__ 1. Instructional Content          __ 5. Motivation
__ 2. Instructional Design           __ 6. Technical Aspects
__ 3. Ease of Use                    __ 7. Overall Evaluation
__ 4. Management

Comments:

1. Instructional Content
_7_ a. The objectives of the program are clearly defined.
_7_ b. Content is sequenced (task analyzed) appropriately.
_7_ c. Practice activities and exercises are appropiate for lesson
      objectives.
_7_ d. The level of difficulty is appropriate for stated age/grade levels
      (e.g. content, vocabulary and readabilty).
_2_ e. Teacher can modify content locally.
_5_ f. Suggested outside activities are appropriate.
_5_ g. The content is transferable and generalizable.
_2_ h. The program offers variability for repeated users.
_7_ i. The program is free of stereotyping (e.g., racial, sexual, etc.).
_7_ j. Content is free of "current" references that may lead to
      obsolescence.
_9_ k. The content of the lesson represents an important curricular topic.
Comments: The objective of the program is to tutor 3-5 graders the mediation process.
The students must go through all of the sections before they finish the program. The
program was tested on 3-4 grade students without much difficulty. All of the students
who began the program eventually finished. Teachers can reduce the number of
sections students must complete. The outside content consists of role plays, mediation
intake forms, and lessons from other mediation training programs. The program has no
variability for repeated users. The content is relevant to many different peer mediation
models.

2. Instructional Design
_7_ a. New information is presented in context, and related to previous
      information (prior knowledge).
_7_ b. Feedback is used appropriately.
_2_ c. Student and teacher can control rate, sequence and level of
      difficulty.
_5_ d. Summaries and reviews are provided.
_7_ e. Uses a variety of displays, sound, color and response modes
      appropriately.
_1_ f. Sound can be turned on and off and is used appropriately.
Comments: The information provided is repeated several times and all major concepts
are evaluated. Students receive feedback on all correct answers and must repeat or go to
a remedial section on wrong answers. When a student gets a correct answer a summary
is provided in a pop up window. The program includes sound, video, and text during
the tutorials. Sound cannot be controlled from inside the program, however, students
were given headphones with adjustable volume controls.

3. Ease of Use
_5_ a. Students can use program independently (i.e., without aid of a
      manual or teacher).
_5_ b. Help procedures are available on-line.
_7_ c. Students can move forward, backward or to the menu.
_5_ d. Manual is clearly written and useful.
_5_ e. Makes appropriate use of prompts.
_7_ f. Student can re-enter program at previous point of exit.
Comments: About half of the students who used the program needed help controlling
the quick time video panel. There is a help menu that goes over how to use quick time.
Students have the option to move forward, to the beginning of a section, or to the menu.
In the menu, a student may go to the section of their choice or quit the program.

4. Management
_7_ a. Student moves through program contingent on progress.
_7_ b. Keeps accurate and useful records of responses.
_7_ c. Branches apppropriately based on student scores.d. Program handles
      a wide variety of student responses (e.g., alternative spellings,
      upper/lowercase).
_7_ e. Provides diagnostic/entry level testing.
_0_ f. Is used effectively in groups (cooperative learning or competition).
Comments: Students must complete one section to move on to the next. All correct
responses are recorded. There is a pretest and students are given their score at the end.

5. Motivation
_6_ a. Program holds student attention, keeping student on task.
_9_ b. Program does not insult or demean student.
_9_ c. Program preserves student's privacy (e.g., no loud identifying noises
      when student makes errors).
Comments: The students are very entertained by the program. The time it takes is
between 20 - 45 minutes. Some students were frustrated by having to repeat sections
when they selected an incorrect answers. Only positive feedback was given.

6. Technical Aspects
_6_ a. Screen displays are effective.
_8_ b. Program avoids unnecessary delays (e.g., slow loading of graphics).
_7_ c. Program is difficult to "crash."
Comments: The program worked on all G-3s and 5400 operating with OS 7.5. I tried the
program on a Macintosh LC with system 7 and there were problems with the Quicktime
Videos, and the fonts.

Questions? Send email to Peter Desberg

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APPENDIX B

# Courseware Evaluation Form

Program Title: Conflict Smarts
Type: __ Drill & Practice  XX Tutorial  __ Simulation  __ Game
Appropriate for (grade level/subject): Grades 4-8
Computer(s): Macintosh  System Requirements: 33MHz 68040, 8 MB RAM, 2x CD-ROM
Publisher/Date: Chan@Work May 1997
Brief Description: Conflict Smarts introduces students to concepts related to conflict and conflict prevention.

Reviewer's Name/Review Date: Robert Whipple 3/30/99
Reviewer's Position:

| | |
|---|---|
| __ Teacher (Grade:  ) | __ Graduate Student |
| __ University Faculty | _X_ Computer Coordinator |
| __ Administrator | __ Other        ) |

Was the review based on the direct observation of pupils?
__ No        __ A single student    _X_ More than one (How many?_3_ )

Rate your computer experience:
__ Computer Novice    __ Intermediate User    _X_ Proficient User

Use the following 1-to-10 scale to rate this program on ALL areas of this form:
10 - One of the best executions of this feature I have ever seen.
 9 - Superior
 8 - Very well done
 7 - Well done
 6 - Better than average
 5 - Adequately done
 4 - Worse than average
 3 - Poorly done
 2 - Very poorly done
 1 - One of the worst executions of this feature I have ever seen.
 0 - Does not apply to this program.

Evaluation Summary:

| | | | |
|---|---|---|---|
| _5_ 1. Instructional Content | | _5_ 5. Motivation | |
| _4_ 2. Instructional Design | | _7_ 6. Technical Aspects | |
| _8_ 3. Ease of Use | | _6_ 7. Overall Evaluation | |
| _6_ 4. Management | | | |

Comments: The content of Conflict Smarts goes over many different methods of managing conflicts. It does not include details about the mediation process. I has a

pretest that gives immediate feedback. The program is interactive and it is simple to use. The program lists many decision making options students may make and the consequences of each decision. The program had some flaws in the screen layout where text disappears and scrollable text is cut. Conflict Smarts is an effective program to teach the basic concepts of communication and conflict resolution.

1. Instructional Content
 _9_ a. The objectives of the program are clearly defined.
 _5_ b. Content is sequenced (task analyzed) appropriately.
 _5_ c. Practice activities and exercises are appropiate for lesson
      objectives.
 _7_ d. The level of difficulty is appropriate for stated age/grade levels
      (e.g. content, vocabulary and readabilty).
 _1_ e. Teacher can modify content locally.
 _0_ f. Suggested outside activities are appropriate.
 _5_ g. The content is transferable and generalizable.
 _3_ h. The program offers variability for repeated users.
 _5_ i. The program is free of stereotyping (e.g., racial, sexual, etc.).
 _5_ j. Content is free of "current" references that may lead to obsolescence.
 _6_ k. The content of the lesson represents an important curricular topic.

Comments: The objective of the program is to introduce students to concepts and terms related to conflict management. The sequence of the lesson allows students many different paths. Students receive feedback from a pop-up menu if their answer is correct. If the answer is incorrect they continue choosing until they select the correct answer. There is no content given to practice the skills away from the computer.

2. Instructional Design
 _6_ a. New information is presented in context, and related to previous
      information (prior knowledge).
 _8_ b. Feedback is used appropriately.
 _4_ c. Student and teacher can control rate, sequence and level of
      difficulty.
 _5_ d. Summaries and reviews are provided.
 _8_ e. Uses a variety of displays, sound, color and response modes
      appropriately.
 _8_ f. Sound can be turned on and off and is used appropriately.
Comments: Participant's learning is reinforced by repetition. The student may go back to the menu to repeat a section. A glossary is provided to define the key words. There are pop-up menus following each response. The program uses sound, text, and video appropriately.

## 3. Ease of Use

_8_ a. Students can use program independently (i.e., without aid of a
      manual or teacher).

_3_ b. Help procedures are available on-line.

_8_ c. Students can move forward, backward or to the menu.

_1_ d. Manual is clearly written and useful.

_6_ e. Makes appropriate use of prompts.

_8_ f. Student can re-enter program at previous point of exit.

Comments: I didn't receive a manual with this program. It is easy to use. The online
help menu tells very little. Students can reenter where they left off, if they remember.


## 4. Management

_6_ a. Student moves through program contingent on progress.

_0_ b. Keeps accurate and useful records of responses.

_5_ c. Branches apppropriately based on student scores.d. Program handles
      a wide variety of student responses (e.g., alternative spellings,
      upper/lowercase).

_5_ e. Provides diagnostic/entry level testing.

_5_ f. Is used effectively in groups (cooperative learning or competition).

Comments: Student must get correct answers to proceed through program. Incorrect
answers are explained and students have an opportunity to answer selection again.


## 5. Motivation

_6_ a. Program holds student attention, keeping student on task.

_5_ b. Program does not insult or demean student.

_6_ c. Program preserves student's privacy (e.g., no loud identifying noises
      when student makes errors).

Comments: Students have the choice of turning off the music. They described it as
"cool." There was no ending point to the software. It ended when students got tired of
it.


## 6. Technical Aspects

_7_ a. Screen displays are effective.

_5_ b. Program avoids unnecessary delays (e.g., slow loading of graphics).

_6_ c. Program is difficult to "crash."

Comments: Some of the text is cut off and scroll down menus end with incomplete text.

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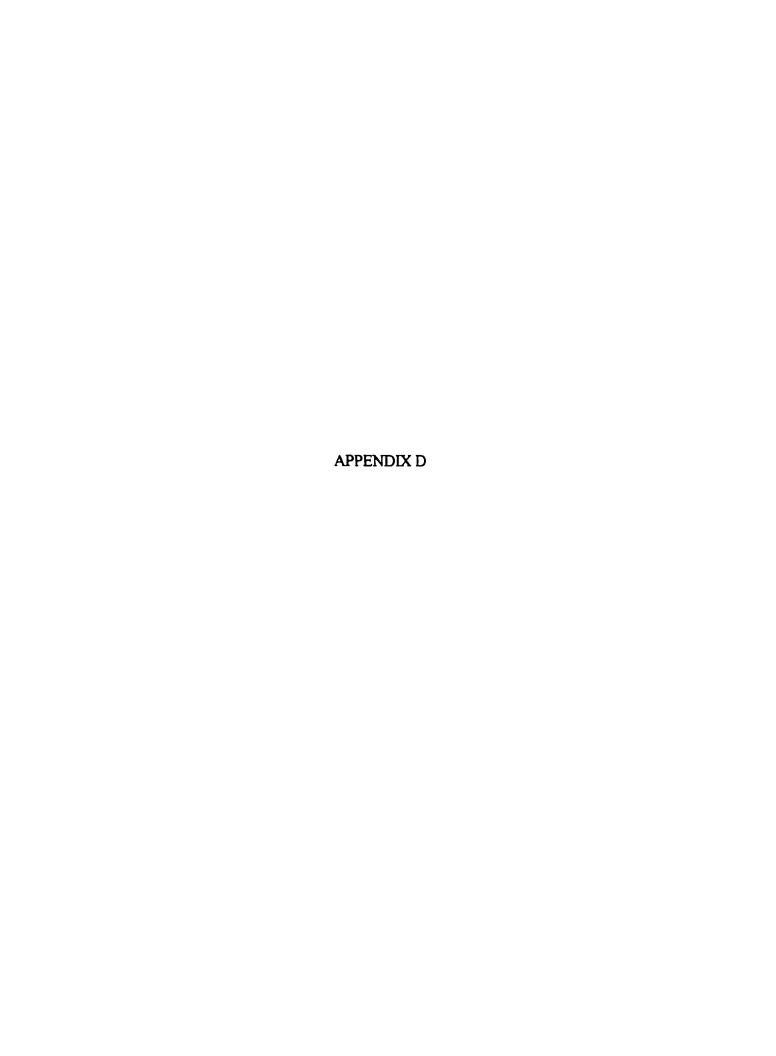Questions? Send email to Peter Desberg

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APPENDIX C

# Compton Mediators
## Evaluation

Name of Student _____

Today's date: _____    Your Age: ____    Your Grade: ____

Your School: _____    Your Room: ____

Level of mediation experience. Please check all that apply:

☐ I have never had any mediation training.

☐ I have participated in peer mediation training.

☐ I have finished the Compton Mediator Computer CD.

☐ I have been trained and mediated conflicts at my school.

*Prepared by Robert Whipple*
*M.A. Negotiation and Conflict Management*

10. *The people who are in a conflict, are called:*
   Ⓐ Confidentials  Ⓑ Tactics
   Ⓒ Disputants  Ⓓ Details

11. *When two or more people are fighting or arguing they are in a:*
   Ⓐ Confidential  Ⓑ Conflict
   Ⓒ Clarify  Ⓓ Detail

12. *What means not talking about what is said during mediation when it is finished. It is like keeping a secret.*
   Ⓐ Confidential  Ⓑ Conflict
   Ⓒ Clarify  Ⓓ Disputant

13. *Means to say something using different words. This is used when people don't understand what has been said.*
   Ⓐ Confidential  Ⓑ Conflict
   Ⓒ Clarify  Ⓓ Disputant

14. *Means to say more about a conflict. Disputants add these to their story so people understand more about the conflict.*
   Ⓐ Confidential  Ⓑ Conflict
   Ⓒ Clarify  Ⓓ Disputant

15. *What are words or actions used to reach a goal?*
   Ⓐ Confidentials  Ⓑ Tactics
   Ⓒ Disputants  Ⓓ Conflicts

40

Bubble in the best answer:

1. *During an introduction to a mediation:*

(A) The mediator finds out what the conflict is and ends it.

(B) The mediator introduces him or herself as a mediator.

(C) Disputants introduce the mediators to their friends.

(D) The mediator decides who is right and who is wrong.

2. *When a mediator asks disputants if they want to use mediation:*

(A) The disputants decides if they want to use mediation.

(B) The teacher decides if the disputants will use mediation.

(C) The mediator can tell disputants they have to use mediation.

(D) The conflict is over.

3. *You are a mediator. You read the mediation rules. One disputant makes faces at the other disputant while you read the rules. When you ask if he agrees to the rules he says "I don't know."*

(A) Stop the mediation and forget everything.

(B) Tell the disputants they have to act serious during mediation.

(C) Say the rules louder.

(D) Laugh at his joke.

4. *During a mediation, A disputant says, " Can I just go and play now, I don't want to waste my time mediating this conflict." What should the mediator do next?*

(A) Remind disputants what is said at mediation is confidential.

(B) Tell the disputant they can say anything they want.

(C) Remind disputants they agreed to mediate the conflict.

(D) Clarify the names of the disputants.

5. *How does a mediator gather facts?*

(A) By listening and asking questions.

(B) By telling people they are wrong.

(C) A mediator doesn't need facts to make a decision.

6. *Who decides which disputant will talk first during a mediation?*

(A) The teacher.

(B) The disputant who is right

(C) The mediator.

7. *Before the mediator reads the rules of mediation she should:*

(A) Have the disputants sign a mediation agreement.

(B) Ask the disputants if they agree to the rules of mediation.

(C) The mediator will introduce herself and ask disputants if they want to solve the conflict with mediation.

(D) Reading the rules of mediation is always the first step.

8. *After the mediator reads the rules of mediation he should:*

(A) Introduce himself as a peer mediator

(B) Ask the disputants if they agree to the rules of mediation.

(C) Ask disputant if they want to solve their problem with mediation.

(D) Reading the rules of mediation is the last step in the process.

9. *Before disputants will talk to each other about solutions to their conflict they will:*

(A) Sign a mediation agreement.

(B) Tell their side of the story to the mediator.

(C) Apologize to each other.

(D) Finding solutions is the first step of the mediation process.

APPENDIX D

# COMPTON MEDIATION AFFECTIVE EVALUATION

STUDENT's NAME:_____

About a month ago, you used the Compton Mediation program in the computer lab. I would like to know what you remember and how you feel about the mediation program.

Please write a comment or bubble in the letter grade for each section.

1. Was the Compton Mediator's program easy to use? _____

_____

2. How easy was it to use?   (A)   (B)   (C)   (D)   (F)
Very Easy    Easy    Hard    Very Hard

3. Feedback is what a program gives you when you answer a question correctly (right) or incorrectly (wrong). What did the Compton Mediator's program do when you answered a question correctly? What happened when you gave a wrong incorrectly? How did this make you feel?

_____


4. The feedback from          (A)      (B)      (C)      (D)      (F)
Compton Mediators was:    Very Helpful    Helpful    Hard    Very Hard

5. How fun was the          (A)      (B)      (C)      (D)      (F)
Compton Mediator's?    Very Fun    Fun    Just Right    Not Fun    Boring

6.. How could the Compton Mediator's program be improved (better made)? _____

_____


7. Please give a final grade for the program:   (A)      (B)   (C)   (D)   (F)
Excellent    Very    Needs    Failed
Good    Improvement

8. What would you tell your friends about the Compton Mediator's program? _____

_____