



The National Association for Media Literacy Education's
Journal of Media Literacy Education 1 (2009) 12-27

Measuring the Effects of a Media Literacy Program on Conflict and Violence

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Abstract

A 5-session curricular unit on the topic of face-to-face conflict mediation and on-screen media violence was administered to 85 sixth graders. Repeated measures analyses were employed to study the 57 students for whom matched questionnaires were available. Results show students became more likely to choose a non-aggressive approach to two of three conflict scenarios presented and boys in the sample became more likely to acknowledge two of three effects of media violence. Other measures employed suggest a mixed response to the curriculum. Implications for successfully promoting media literacy in schools and for addressing interpersonal conflicts among young people are discussed.

Keywords: Conflict, Violence, Mediation, Aggression, Media Effects

The effects of media violence have been a primary concern for researchers interested in the impact of media on thought and behavior. The ways in which violent messages in media may affect children have been of special concern. Research has shown that exposure to media violence contributes to psychological effects such as desensitization, fear, and an inflated sense of danger and crime (Comstock and Scharrer 1999; Potter 1999; Smith et al. 1998). Behavioral effects have also been measured, indicating that viewing violent media can and does contribute to aggression (Comstock and Scharrer 1999; Potter 1999; Smith et al. 1998). As such, the topic is not only considered important for scholarly inquiry, but also for scholarly intervention.

Media literacy is one type of intervention that can be used to help counter effects of media violence (Cantor and Wilson 2003). By encouraging children to think critically about the violence they see in television, movies, videogames, and other media, school media literacy programs have the potential to interfere with the potentially negative effects of media violence. Media literacy instruction has successfully intervened in the relationship between media and negative effects on audience thoughts, opinions, and behaviors on a number of topics (Brown 2001; Dorr, Graves and

Phelps 1980; Irving and Berel 2001; Pinkleton et al. 2007). One potentially fruitful approach in violence-focused media literacy programs is to encourage children to think critically about violence and conflict as they are presented in media as well as enacted in "real life" face-to-face conflict situations (Scharrer and Cooks 2006a, 2006b). The present study is a pilot study that adds to these findings by highlighting the specific effects that one media literacy program had on students' perceptions about media violence and on their conflict resolution skills.

Literature Review

Conceptualizing and Implementing Media Literacy

Varying approaches to conceptualizing and enacting media literacy programs has accounted for some debate (Hobbs 1998; Kubey 1998). However, a level of agreement has been established on the principles and goals of media literacy (Aufderheide 1997). The abilities to access, analyze, and evaluate a variety of media forms, to understand the relationships between media and audiences, to draw connections between media and other social actors, and to actively create media define, for the most part, what it means to be media literate (Aufderheide 1997; Scharrer and Cooks 2006a). Some important principles that guide media literacy are the ideas that media constitute and are constituted by real-

ity, that media are value-laden, that media function on a commercial basis, that audience members interpret media messages differently, and that aesthetic codes and conventions are specific to each medium (Aufderheide 1997).

Fostering critical thinking is another key component of media literacy (Buckingham 1998). However, like media literacy, neither critical thinking, nor its cousin critical autonomy (independent critical thinking) are clear-cut concepts (Ruminski and Hanks 1995; Wright 2002). According to Kurfiss (1988), critical thinking is the result of an approach to teaching and learning that raises questions for class discussion, as opposed to a strict presentation of material. Ediger (2001) defines critical thinking as a learning process that centralizes questioning truth, accuracy, and honesty, which is best achieved through a teacher-centered introduction followed by a student-centered discussion. Christ and Potter (1998) identify the standards set forth by the National Communication Association (formerly Speech Communication Association, or SCA) that characterize critical thinking as it specifically relates to media literacy. These standards prioritize an ability to analyze and discuss the effects of media, as well as recognize and utilize the skills needed to communicate across media (SCA 1996). Combining these ideas in the study at hand, critical thinking in media literacy is conceptualized as an educator-introduced, student-focused discussion in which the accuracy and ethics of media content—as well as its social effects—are assessed, and skills to communicate through media forms are enhanced.

As young people in the U.S. spend six to eight hours a day with media (Roberts and Foehr 2004) and as almost every state in the country now recognizes the need for media literacy curriculum (Kubey and Baker 1999; McCannon 2002), the inclusion of media literacy in schools and beyond is expected to be on the rise. On the rise along with this process-oriented media literacy approach is a trend toward results-oriented standardized testing in public schools. Though these two pursuits are not mutually exclusive, assessment measures for media literacy programs become increasingly important with this shift. This is especially true since new curriculum initiatives are rarely put in place in public schools without first having their effectiveness assessed. This study aims to demonstrate an assessment of the success of a media literacy program on students' critical attitudes toward media violence and conflict.

Media Literacy: Theoretical Foundations

Approaches to media literacy tend to largely fall into two related but distinct theoretical categories: intervention-oriented and cultural studies-based (Kubey 1998). An intervention-oriented approach is based on a media effects model that understands there to be a relationship between media exposure and audience thoughts, behaviors, and attitudes. Those operating out of this theoretical framework view media literacy as an attempt to intervene in the relationship between media and potential effects on audiences. Due to their limited real-world experience to counter media messages (Comstock and Scharrer 2006) and also to their developing sense of identity (Brown 2000), children are believed to be especially susceptible to effects of media. Consequently, interventionists often target young people for media literacy instruction. Some studies have found that intervention-based media literacy programs can indeed mitigate the influence of media on audiences (Brown 2001; Dorr, Graves and Phelps 1980; Irving and Berel 2001; Pinkleton et al. 2007).

Cultural studies perspectives inform a different approach to media literacy. Media literacy researchers operating out of the cultural studies framework prioritize discussions about media that bring to the forefront the enjoyment young people derive from popular culture. This strategy aims to value young people's lived experiences in order to counter the types of knowledge that are traditionally privileged in the school setting (Sholle and Denski 1994). Scholars approaching media literacy from this angle tend to see interventionist attempts to "inoculate" young people against negative media effects as problematic (Buckingham 1998; Hart 1997; Masterman 1985; Tyner 1998). Interventionists might also be considered judgmental and elitist, since these scholars may assume they know what is best for the youth and take on an authoritative role in telling them what is right and wrong. Cultural studies-oriented scholars argue that as a result, interventionist approaches lead to student resistance to media literacy.

Media Violence and Media Literacy

Despite these criticisms, most media literacy studies pertaining to violence are interventionist-oriented, likely due to the negative effects associated with the topic. Three studies in the 1980s began this research tradition. Doolittle (1980) found little in the way of success after conducting an eight-session media literacy curriculum with eleven-year-olds focusing

on the production aspects of television violence. Two studies by Huesmann and colleagues (Huesmann et al. 1983) showed mixed results in the effects of violence-focused media literacy curricula. The first study with seven- and nine-year-olds who participated in a 3-session media literacy program on violence showed no decline in the children's perceptions of reality in television, aggressive behavior, or their identification with aggressive characters three months following a curriculum emphasizing the production techniques behind television violence. The follow-up study with a different sample of the same-aged children two years later showed more positive results after a change in the focus of the curriculum. Four months after visiting the students and asking them to write an essay for younger children about the unrealistic nature of television and the negative effects of violent television, the researchers identified significant changes in their attitudes toward violence. A reduction in identification with aggressive characters and a decline in the correlation between viewing violence and aggression were found.

Two studies in the 1990s continued this line of research. Sprafkin, Watkins, and Gadow (1990) conducted a media literacy curriculum with children labeled "learning disabled" and "emotionally disturbed," aged six to twelve. The researchers found an increase in "television knowledge" for all participants both immediately following and two months after the program, and also found that children labeled "emotionally disturbed" showed decreased identification with aggressive characters. Another study by Voojjs and van der Voort (1993) exposed children to interviews with doctors, crime victims, and police officers discussing the consequences of violent acts and led them through a critical analysis of a television crime show clip. Results showed that the children viewed protagonists' violent actions more critically and considered television violence to be less realistic, immediately following the curriculum and two years later.

A decline in aggression was seen—but only among boys—in Rosenkoetter, Rosenkoetter, Ozretich, and Acock's (2004) media literacy study. These researchers randomly assigned groups of children, grades one through three, to either a 31-session curriculum or to the control group. The media literacy curriculum focused on the unrealistic ways in which aggression is used as a problem-solving tool on television. Role playing, media clip analysis, and the production of an educational video for younger chil-

dren were components of the curriculum. While boys, but not girls, were found to experience a reduction in peer-derived aggression scores after participating, girls, but not boys, were found to consume less violent media, identify with aggressive characters less, and feel less positive toward media violence.

Byrne (2009) tested three variations of media literacy interventions to determine their effectiveness in reducing the negative effects of media violence. Nearly 200 fourth and fifth graders were randomly assigned to one of three conditions. Results showed that children who participated in the media literacy lesson with an activity in which they wrote a paragraph about what they had learned and read it aloud to a video camera experienced a decline in their willingness to use aggression over time, whereas children who participated in the same lesson without the activity experienced an increase in their willingness to use aggression. As the studies presented here suggest, evaluations of violence-focused media literacy programs show some potential for intervention but have yielded mixed results. The current study adopts some of the most successful strategies, such as using a media production activity to summarize the lessons of the curriculum and emphasizing the lack of realism in mediated depictions of violence.

Aggression and Conflict Resolution

Some research has been conducted to assess the effectiveness of conflict resolution programs among middle school aged children. DuRant and colleagues (1996) randomly assigned two middle schools with predominantly African-American students to a 5-week, 10-session violence prevention program that was either knowledge-based or conflict resolution oriented. Pre-test and post-test surveys revealed that both curricula were effective in decreasing self-reported violence use in hypothetical situations, as well as decreasing the frequency of students' use of violence and the frequency of fights they engaged in the previous 30 days. Peer mediation approaches to conflict resolution have yielded some success with middle schoolers (Jones 2004). Sixth through ninth graders who participated in peer mediation-oriented conflict resolution programs have been shown to become more knowledgeable about conflict processes, become more willing to negotiate in conflict situations, and exhibit more positive attitudes toward conflict (Dudley 1995; Dudley, Johnson and Johnson 1996; Johnson et al. 1997). Another peer mediation program, called Responding

in Peaceful and Positive Ways (RIPP), was a 25-session conflict resolution curriculum focusing on problem solving, developed for an urban, predominantly African-American middle school student population. RIPP was also shown to have positive outcomes (Farrell, Meyer, Kung and Sullivan 2001). In a post-test, students who participated in RIPP reported that they approved less of violent behavior, experienced more support from their peers for nonviolent behaviors, and physically aggressed with less frequency (Farrell et al. 2001). For these reasons, the current curriculum contains elements in which the students role-play and discuss conflict mediation in groups of peers. Yet, like the research on media literacy and violence, the effects of conflict resolution curricula do vary. In another study, for instance, Kaiser-Ulrey (2004) found no decrease in violence-related outcomes such as occurrences of bullying or incidences of victimization after a conflict resolution program.

Hypotheses and Research Questions

H1: Students will be less likely to think of violence as acceptable after the curriculum compared to before.

Among the outcomes achieved in previous media literacy curricula is the shifting of attitudes toward media violence toward more criticism and less acceptance (Huesmann et al. 1983; Rosenkoetter et al. 2004). Due to the focus in the present media literacy unit on the potentially negative effects stemming from exposure to media violence and the “high-risk” ways in which violence can be presented in the media, a similar change in attitudes toward violence was predicted.

H2: Students will be more likely to choose a non-aggressive conflict resolution option after the curriculum compared to before.

The literature on the effects of conflict mediation and resolution programs on early adolescents suggests such programs can shape students’ choices when in conflict situations, and make peaceful ways of mediating conflicts more likely (Dudley 1995; Dudley et al. 1996; Farrell et al. 2001; Johnson et al. 1997). The current curriculum also focused on ways to address conflicts that avoid physical and verbal aggression, and discussed such key aspects of successful conflict resolution as considering attribution of responsibility and perspective-taking. Therefore, a similar move toward non-aggressive conflict strategies was predicted.

H3: Students will be more likely to acknowledge the negative effects of media violence after the curriculum compared to before.

Prior media literacy curricula on the topic of media violence focus on the unrealistic manner in which violence is depicted in the media and the resulting negative consequences for the thoughts, attitudes, and behaviors of audience members (Byrne 2005; Huesmann et al. 1983; Rosenkoetter et al. 2004; Voojits and van der Voort 1993). The current approach also operates on the assumption that in order to successfully intervene in the relationship between media violence and potential negative outcomes, the participating media literacy student would have to acknowledge that negative outcomes are indeed possible, rather than pass media violence off as “just entertainment.”

RQ1: Will students’ conflict styles change after participating in the curriculum?

Although they can change in response to specific situations, conflict styles are considered to be relatively stable general tendencies (Wilmot and Hocker 2000). Therefore, they may or may not be likely to change in response to a single curricular unit as is administered in the current study. Nonetheless, the potential role of the young person’s general orientation toward conflict in her/his response to the curricular unit is important to test.

RQ2: Will students’ levels of media exposure influence how they respond to the curriculum?

It is possible that the media literacy unit will be received differently by students with heavy exposure to television and video games—and perhaps to violence within those television programs and games—compared to other students. These students may be more protective about their own media use and therefore be resistant to the curriculum. Conversely, they may find more connections between their own lives (i.e., their media use) and the curriculum and apply what they have been learning to more examples than their counterparts. Therefore, they may change more dramatically than other students.

Methods

Curriculum Design

Little work has been done to research the effects of joint media literacy/conflict resolution programs. The current study, therefore, fills a substantial gap. The media literacy and violence prevention program implemented for this study was designed to

foster critical thinking, facilitate media literacy, and encourage nonviolent conflict resolution. In correspondence with effective critical thinking (Ruminiski and Hanks 1995; Wright 2002) and media literacy (Aufderheide 1997; Byrne 2009) techniques, the curriculum was designed to begin with an introduction of material followed by open-ended discussions and applied activities with students. The “teacher” introduced lessons that consisted of summaries of main themes from media effects and interpersonal communication research on violence and conflict. The activities following the lessons were made up of student-centered discussions, interactive activities, role-playing exercises, and a media production project.

This media literacy and violence prevention curriculum heeds some of the cautionary observations stemming from the cultural studies-based approach, while it is organized around an interventionist model. For example, the negative effects of exposure to violent media according to the research evidence were presented to students, but “preaching” to students about what to watch and not watch, or how much to watch, was not part of the curriculum. Instead, students were encouraged to express their own experiences with and opinions about media violence and conflict to each other and to the facilitators in an open-ended discussion.

The unit began with a discussion of critical thinking, defining the term as carefully considering a topic from multiple points of view and developing one’s own well-reasoned and well-supported position. The process of figuring out whether something is fair, accurate, or reliable was discussed as an important component of critical thinking. The goals of the curriculum were shared with the students (to encourage that type of critical thinking about media violence, to encourage non-violent resolutions to conflicts) as well as what goals do not entail (to tell them what to watch, play, etc.).

A unique aspect of this curriculum was the combined focus on face-to-face conflict and conflict resolution and mediated conflicts and violence. The first major section of the curriculum focused on the former, and was introduced by asking students to define conflict, provide examples, and explain why conflict may surface. Three models derived from the literature to make sense of conflict and consider effective resolutions were then presented. The first was created by one of the present authors, the LTA Model, which

stands for Listen (listen carefully to what the other person is trying to say when in conflict), Think (think about what both you and other person want to achieve that is causing the conflict, think about what the person means to you, and think about that person’s point of view), and then Act (act in ways that show you are thinking about and listening to the other person). The second, the Lens Model (Wilmot and Hocker 2000), emphasizes the differences in perceptions of the conflict and the events surrounding the conflict from the multiple people involved. To illustrate this model, the curriculum included the presentation of an example of a conflict in which the individuals involved had very different views of what had taken place and why. Finally, the central concept of attribution in conflict mediation (Baron 1985; Orvis, Kelley and Butler 1976) was introduced, explaining to the sixth graders that often when we are in conflict we often find ways to escape blame ourselves and assign it to others. Students were then guided through an exercise in which they thought of an example of a conflict, considered multiple ways to address the conflict, and identified consequences for each way. Finally, a group exercise called for two students to act out a conflict and then at any point, another student would jump in to change the direction of the conflict by attempting a resolution, pointing out a new perspective, or interjecting in any way.

The second major emphasis in the curriculum was on the analysis of conflict and violence in media. The sixth graders were asked how they would define whether something in movies, television, and video games is violent, and a discussion of possible elements of a definition of media violence ensued. Sixth graders were also asked whether they think any effects on themselves and others may stem from spending time with violent media. Then, the three potential effects of media violence from the literature were introduced (Smith et al. 1998), with the caveat noted that these effects do not mean everyone is influenced the same way each time they are exposed to violent media, but rather, that such exposure makes one or more of these effects more likely to occur. The concepts of learning aggression, becoming desensitized, and experiencing the “mean world syndrome” were thus introduced and defined. Then, a subsection called *The Target is You* provided data about how children’s media, in particular, are replete with violence (Gerbner, Morgan and Signorielli 1994; Smith et al. 1998) and the sixth graders fielded an open-ended question about why vio-

lent media are targeted to kids. These elements were created to tap into the key questions of media literacy as defined by the Center for Media Literacy (2009): “How might different people understand this message differently from me?” and “Why was this message sent?”

A number of “high-risk factors” in the portrayal of media violence—violence perpetrated by appealing characters, justified violence, rewarded violence, realistic violence, and lack of consequences in violent portrayals—were then introduced as factors that make one or more of those effects more or less likely. The sixth graders were asked to speculate about why each type was associated with heightened risk of an effect, give examples from their own media experiences of each type, and look for each type in a series of media clips. The factors were identified by Smith and colleagues (1998) in the National Television Violence Study (NTVS) as those that constitute a particular risk for older children and adolescents (ages seven to 18) to learn aggression from viewing.

The two elements of the curriculum were woven together by asking the students to compare and contrast real-life conflicts with those they see enacted on television and in movies and video games. The students generally concluded that conflicts are much more likely to result in violence in the media than in real-life, and the facilitators supplied some statistics from media violence content analyses to support this conclusion. When analyzing media clips to look for high-risk factors, the sixth graders also assessed how conflict is depicted in the clip and how it could have been resolved differently. Therefore, in analyzing how some ways of telling violent stories in the media are privileged over others (e.g., lack of consequences), the question was posed: “What lifestyles, values, and points of view are embedded in this message?” (Center for Media Literacy 2009).

The final component of the curriculum for the sixth graders was scripting, acting out, and videotaping of a public service announcement (PSA) on media violence or conflict resolution. After explaining why creating media is also an important part of media literacy and after defining PSAs, the sixth graders were assigned a topic from within the curriculum (e.g., the lens model, rewarded violence in the media, violence in children’s media, etc.) to be used to inform and persuade third and fourth graders on the topic. The sixth graders produced clever and creative PSAs and enjoyed this aspect of the curriculum very much, but

its analysis is beyond the present focus.

Sample and Research Procedures

The participating students were 89 sixth graders from five different classrooms in three towns within a 20-mile radius from one another, encompassing a rural town, a college town, and a small post-industrial city in New England. The locations were chosen because of their proximity to the university and the classrooms were chosen due to the desire of the teachers and principals to participate. Therefore, the sample is a non-random convenience sample. Census figures from 2000 indicate that the median yearly household income in the three locations was \$42,294. The population of the three towns/cities was 1.3% Black or African American, 1.4% Asian or Asian American, 15.1% Latino, and 86% White or Caucasian non-Latino. The mean age of the sixth graders was 11.71 ($SD = 0.46$). Just over half (51.1%) of the students were male (48.9% female).

College students who were enrolled in two upper-level undergraduate seminars, Television Violence and Conflict and Mediation, were the facilitators (or “teachers”) who conducted the media literacy sessions. The use of college students to facilitate the curriculum was designed to promote their own learning as well as to avoid the sixth graders feeling that they were being judged, as they presumably would with an authority figure such as a college professor. The college students met weekly with the authors to design a reading packet that would serve as a guide for the curricular unit, to choose media clips to analyze with the sixth graders, and to practice implementing the lessons. Thus, they received about 9 hours of training before conducting the sessions. The authors observed the media literacy sessions and provided feedback. Before the curriculum was administered, the authors met with some of the teachers and principals to get their input. The corresponding changes were applied to all classroom settings so that the media literacy program was administered consistently. The curriculum was implemented in five one-hour visits to the sixth-grade classrooms.

Measurement

Data collection occurred in the form of a pre-unit questionnaire administered by the researchers before the curriculum had begun and a post-unit questionnaire administered by the classroom teachers approximately one week after the curriculum had

ended. The pre-test questionnaire was designed to measure pre-existing attitudes and thinking about the topic of conflict and violence in the media. Those responses were compared with the responses reported by the sixth graders after the visits to their classes had ended to determine whether any change occurred.

To examine changes in *attitudes toward violence*, the eight items comprising the General Beliefs component of Huesmann and Guerra's (1997) revised Normative Beliefs about Aggression (NOBAGS) scale was employed. This scale was designed for young respondents and has been tested for validity and reliability and includes such items as "In general, is it OK to take your anger out on others by using physical force (like punching)?" "If you're angry, is it OK to say mean things to other people?" and "Is it wrong to make other people feel bad with insults or mean words?" with response options including "It's perfectly OK," "It's sort of OK," "It's sort of wrong," and "It's really wrong." In the present sample, the NOBAGS scale was reliable at both pre-curriculum data collection ($\alpha = .86$) and post ($\alpha = .92$).

In order to determine if the sixth graders change their conflict resolution tactics away from verbal or physical aggression and toward non-violent mediation strategies, a number of *conflict scenarios* were created by the authors and the students were asked how they would respond to each. Three scenarios in which conflicts surface between two or more individuals were presented to the students (see Appendix) and response options unique to each scenario were presented. There was a common logic across the three scenarios in that each contained (1) either an indirect aggressive response (starting rumors, excluding people, etc.) or a verbally aggressive response, (2) a physically aggressive response, and (3) a mediation/talking through problems response. In the first, one girl breaks a promise to a friend to keep an embarrassing secret and instead tells other classmates. In the second scenario, a boy publicly makes fun of another boy for getting a bad grade on a test. In the third, two boys laughed as they played a joke on another by pulling his chair out from under him as he was sitting down, causing him to fall. In each scenario, students were also able to provide an "other" response, filling in the blank to indicate what it would be.

An additional set of items measured the respondents' *conflict styles* for the purpose of determining whether learning about the models and perspectives used in conflict mediation would change the

ways in which the youngsters approached conflict situations. A 12-item scale was employed consisting of items created by the authors that mirrored the dimensions of the selecting items from the Kilmann-Thomas conflict MODE instrument (1977). The items asked the students to report how often they take the following approaches when in an argument, with response options ranging from "never" to "always" on a five-point scale. The scale included two items to measure the avoiding style (e.g., "I don't talk about things that might cause a conflict," "I keep quiet about my views in order to keep others from arguing"), three items to measure the competing style ("I keep arguing until my point is accepted," "I raise my voice when trying to get other to see my point of view"), two items to measure the collaborating style ("I try to use everyone's ideas when solving a problem"), three items to measure the accommodating style ("I tell myself that the argument is not a big deal," "I try to make disagreements seem like they're not important") and two items to measure the compromising style ("I'm willing to give in a little if the other person is, too," "I settle differences by meeting the other person halfway"). The five styles have been shown in past research to encompass two main dimensions, an assertiveness approach in which one's own wishes in the conflict are paramount and a cooperativeness approach in which a desire to satisfy the other's wishes is central (Thomas and Kilmann 1974).

Lastly, the authors created measures designed to determine whether students learned about the three potential negative influences of violent television. These items test both the ability to grasp key concepts covered in the curriculum and the students' agreement that media violence, can, indeed, have a negative influence, a key issue in taking the topic seriously. "People who watch a lot of TV may get the idea that the real world is a mean and scary place," measured acknowledgment of the mean world syndrome. "The more people see violence in the media, the more likely they are to think violence is an OK way to solve a conflict" measured acknowledgment of learning aggression. Finally, "Watching a lot of violence on TV can make it seem like violence is common in real life" measured acknowledgment of desensitization effects of violence. For these items, a score of 1 meant the students strongly agreed that the effect occurs and 5 meant they strongly disagreed.

A number of items both pre- and post-curricular unit posed open-ended questions pertaining to

interpersonal conflict and mediated violence. Students' responses to a media clip analysis exercise were utilized to assess the curriculum, as well. However, these qualitative items are outside the present focus of this paper.

Results

Data were analyzed only for those students present on each of the days on which the curriculum was taught and who completed matched pre-curriculum questionnaires and post-curriculum questionnaires. This reduced the sample to 57 of the original 89, but allowed for the use of Repeated Measures ANOVA to examine within-subjects change. In each of the following analyses, gender was entered as a between-subjects variable.

The difference in pre-curriculum responses to the Normative Beliefs about Aggression (NOBAGS) items and post-curriculum responses were arrayed in the expected direction, but did not reach statistical significance (see table 1). Results did not change when students' levels of television and video game exposure were each entered as covariates in the equation, addressing RQ2. Thus, no support can be claimed for H1, which had predicted that students would be less likely to think of violence as acceptable after the curriculum compared to before.

H2 predicted that the sixth graders would be more likely to choose a peaceful, non-aggressive resolution to the conflict scenarios after participating in the curriculum compared to before. Chi square was used to test this hypothesis, as the responses to the conflict scenarios were measured at the ordinal level. For all three scenarios, the most common pattern was no change from pre- to post-test scenario responses (see Table 2). The majority of participants chose a non-aggressive response to the conflict scenarios both pre-curriculum and post. A handful of participants were consistent in choosing the aggressive response to each scenario at pre as well as post.

However, change toward non-aggressive responses occurred for two of the three conflict scenarios, lending partial support to this hypothesis (see table 2). Responses to the first scenario, involving one friend exposing another friend's secret to others, did not achieve statistical significance, although the results largely arrayed in the expected direction ($\chi^2 = 3.49, p = .08$, Kendall's $T = .30, p = .08$). Responses to the second scenario, in which a student's poor performance on an exam is ridiculed by others, were

significantly different post-curriculum compared to pre-curriculum ($\chi^2 = 15.91, p < .001$, Kendall's $T = .61, p < .001$). There was also a significant difference in overall responses to the third scenario, in which a classmate intentionally causes another classmate to fall and then laughs ($\chi^2 = 4.85, p < .05$, Kendall's $T = .36, p < .05$). Therefore, there is evidence that some sixth graders moved from aggressive to non-aggressive responses in two of the three conflict scenarios after participating, with the corresponding counts and percentages indicated in bold in the table. (There is also evidence in the table that a very few students—6 for the first scenario and 1 each for the second and third—demonstrated the “boomerang” effect of choosing a non-aggressive response pre-curriculum and an aggressive response post-curriculum.)

H3, which predicted that students would be more likely to acknowledge the negative effects of media violence after the curriculum compared to before, received minimal support from these data. Two of the three potential negative outcomes associated with exposure to media violence—mean world syndrome and learning aggression—appeared to be learned (and implicitly agreed with), but only by the boys and not the girls in the sample. For the third negative media violence outcome, desensitization, a change from pre- to post-curriculum occurred only when the students' television and video game exposure were each entered as covariates. (Entering these covariates in the analysis made no difference for mean world syndrome and learning aggression media effects.) Thus, mixed evidence is found in exploring RQ2, with students' media exposure levels having a significant contribution in their responses to the curriculum in one of three instances.

The sample did not demonstrate an overall increase in agreement that people who watch a lot of television may get the idea that the real world is a mean and scary place from pre-curriculum to post-curriculum responses. However, results revealed a gender interaction, in which girls in the sample became less likely to agree that mean world syndrome effects occur (pre-curriculum $M = 2.85, SD = 0.93$ post-curriculum $M = 3.55, SD = 1.10$) and boys became more likely to do so (pre-curriculum $M = 3.03, SD = 1.38$ post-curriculum $M = 2.62, SD = 1.42$), $F(1, 52) = 5.31, p < .05, \eta^2 = .09$, see table 1.

Similarly, there was no significant within-subjects change in agreement that television violence exposure can lead people to think violence is an ac-

ceptable way to solve a conflict. However, once again, gender played a role, with girls becoming less likely to agree with the statement (and therefore acknowledge the effect) (pre-curriculum $M = 3.20$, $SD = 1.15$ post-curriculum $M = 3.65$, $SD = 1.27$) and boys more likely in a result that approaches statistical significance (pre-curriculum $M = 3.31$, $SD = 1.28$ post-curriculum $M = 2.97$, $SD = 1.32$), $F(1, 52) = 3.40$, $p = .06$, $\eta^2 = .06$, see table 1.

The desensitization item ("Watching a great deal of violence on TV can make it seem like violence is common in real life") showed neither an overall within-subjects change from pre- to post-curriculum, nor a significant gender interaction (see Table 1). However, when the analysis was run with students' television and video game exposure levels entered as covariates, within-subjects change did occur from pre- ($M = 3.32$, $SD = 1.12$) to post-curriculum ($M = 3.79$, $SD = 1.15$), $F(1, 30) = 12.11$, $p < .01$, $\eta^2 = .29$) toward less agreement with the statement. A significant interaction occurred in this analysis, as well, with students' levels of television exposure ($F[1, 30] = 6.47$, $p = .01$, $\eta^2 = .18$). Heavy television exposure, therefore, appears to be associated in this case with a "boomerang effect" from the curriculum.

The first research question asks whether students' conflict management styles would change after participating in the curriculum. In order to explore this RQ, first the data were reduced. A principal components factor analysis was run on all of the conflict styles items in the pre-curriculum data to investigate the factor structure. Ten of the 12 items loaded cleanly onto one of two factors, one containing roughly all of the non-aggressive cooperative conflict style items (7 items spanning avoidant, cooperative, and dismissive styles) and the other containing all three more aggressive assertiveness conflict items. Thus, the data fit the expected dimensions of this measure well (Kilman and Thomas 1977). The two remaining items were dropped from the analysis. An additive index was then formed with all of the non-aggressive conflict style items, and it was determined that dropping one additional item would increase the Cronbach's α from .60 to .64. Therefore, 6 items spanning multiple cooperative conflict styles were added together to form this index, with an α of .64 at both the pre-curriculum and the post. The 3 assertive conflict style items formed a reliable index at the pre-curriculum ($\alpha = .66$) but not at the post ($\alpha = .44$). Therefore, those 3 items were treated individually.

To explore RQ1, once again, a Repeated Measures ANOVA was run to look within subjects at changes between pre- and post-curriculum, with gender entered as a between-subjects factor and television and video game exposure as covariates. There was no change in the frequency with which students reported using cooperative conflict resolution styles before ($M = 18.56$, $SD = 3.43$) compared to after ($M = 18.65$, $SD = 4.06$) the curriculum, $F(1, 50) = 0.23$, ns. Neither gender nor the media exposure covariates contributed meaningfully to these results. Likewise, there was no difference in the tendency to report that when in conflict "I keep arguing until my point is accepted," (pre-curriculum $M = 2.93$, $SD = 1.01$ post-curriculum $M = 2.96$, $SD = 1.18$), $F(1, 52) = 0.02$, ns) and no relationship with gender or either of the media exposure variables. No within subjects change occurred for the "I raise my voice when trying to get others to see my point of view" item, although there was a significant gender interaction. Females were less likely to report using this conflict resolution style after the curriculum ($M = 3.56$, $SD = 0.95$) compared to before ($M = 3.20$, $SD = 0.95$), whereas males were more likely to do so (pre-curriculum $M = 3.01$, $SD = 1.28$ post-curriculum $M = 2.82$, $SD = 1.06$), $F(1, 52) = 5.28$, $p < .05$, $\eta^2 = .09$. Finally, no within subjects change or interaction with gender occurred in agreement with the item "I take a tough stand, refusing to give in," but a significant interaction emerged with video game exposure, $F(1, 30) = 4.71$, $p < .05$, $\eta^2 = .04$. Thus, on balance, there is little evidence that conflict styles changed in response to participating in this curriculum.

Discussion

This study builds on our own past media literacy initiatives (Scharrer and Cooks 2006a, 2006b) and employs a rather novel approach in which two ways of addressing the issue of aggression in young people that are typically quite disparate, media literacy and conflict resolution, are brought together in a unified curriculum. Thus, it is a pilot study, exploring the possibility that such a combined curricular approach might shift attitudes toward media violence as well as encourage more peaceful responses when faced with a real-life conflict. Drawing from past violence-oriented media literacy attempts (Byrne 2009; Huesmann et al. 1983; Rosenkoetter et al. 2004; Sprafkin et al. 1990; Voojits and van der Voort 1993) as well as prior conflict resolution approaches for early adolescents (Dudley 1995; Dudley et al. 1996; Farrell et al. 2001;

Johnson et al. 1997), in the present project these two elements were integrated. The reasoning behind the combined approach was that media violence concerns largely stem from the potential of violence exposure to encourage the learning of aggression (Comstock and Scharrer 1999; Potter 1999; Smith et al. 1998). In young people's lives, opportunities to act aggressively often occur when they are faced with a conflict. Therefore, we believe a curriculum that combines the critical analysis of media violence with the facilitation of positive conflict mediation skills is fruitful.

Another aspect of the present approach that makes it somewhat unique is that although it clearly stems from an interventionist, media effects paradigm, it is also informed by the admonitions against harsh judgments and teacher-as-sole-expert lessons that have surfaced among more cultural studies-oriented media literacy scholars (Buckingham 1998; Hart 1997; Masterman 1985; Sholle and Denski 1994; Tyner 1998). By employing college students as the facilitators, by allowing room for discussion of the pleasure that media bring to young people (and to the college students, as well), and by encouraging critical thinking by beginning with the presentation of information and then opening up the discussion to students' views, opinions, and experiences (Ediger 2001; Kurfiss 1988), we attempted to avoid the pitfalls of some past interventions.

The data yield both promising and troubling results, as well as some results that are equivocal at this time. Promising results emerge in the analyses of the responses to the conflict scenarios posed to the sixth graders. In two of the three scenarios, there is evidence of change from a more aggressive response (employing physical threats or actions or, more moderately, indirect or verbally aggressive strategies) toward a non-aggressive mediation of the conflict. In the third, there is also evidence of such change, but it falls just short of statistical significance. Thus, when presented with a conflict that may realistically surface in the life of a 12-year-old, there is some indication that participating in the curriculum was associated with choosing a non-aggressive way to address the situation. Also promising is the pattern of results that shows for the males in the sample; significant change in their responses occurred which indicates greater acknowledgment of two of the three major negative effects of exposure to media violence, the mean world syndrome and the learning of aggression. The boys became more likely to see media violence exposure as

potentially problematic for these two reasons, which could, perhaps, inspire them to think more critically about the violence in the media they consume and ultimately discourage their own potential negative response.

However, troubling results emerge as well, as seen in the tendency for the girls in the sample to have what could be called a "boomerang" response to the curriculum for some of the items. They became significantly *less* likely to agree that mean world syndrome and learning aggression effects can stem from media violence exposure, which suggests a certain resistance to this aspect of the curriculum. Interestingly, Rosenkoetter and colleagues (2004) also found boys, but not girls, to respond more favorably in some measures (i.e., to experience a reduction in peer-derived aggression scores) after participating in their curriculum. Nonetheless, the fact that girls rather than boys (who, once again, had the intended response to the curriculum on these items) had a "boomerang" outcome is quite surprising, since past research shows boys tend to be more likely to be resistant to criticism of media violence (Bushman and Cantor 2003) and Rosenkoetter and colleagues (2004) showed girls but not boys experienced a number of encouraging responses to their violence-oriented curriculum, including feeling less positively toward media violence (Rosenkoetter et al. 2004). Clearly, the role of gender in students' responses to media literacy is complex and should be examined further.

The data also revealed the possibility that young people's levels of average television and video game exposure can contribute to a boomerang effect, as was the case for the desensitization item. Results showed that heavy television viewers became less likely to agree that media exposure can make violence seem common in real life after participating in the curriculum. To the best of our knowledge, the study at hand is one of the only existing studies to examine the potentially important mitigating variable of students' typical levels of media exposure. It stands to reason that heavy media use among students might contribute to greater resistance to a critical media literacy curriculum. That possibility, suggested in some results in the current study, should be taken up further in future intervention analyses.

Other researchers have discussed the potential of certain aspects of media literacy curricula to produce the opposite outcome as intended. Austin and colleagues, for instance, have experienced "paradoxi-

cal” results in some of their work meant to encourage critical thinking about media’s role in young people’s attitudes and behaviors around tobacco use (Austin, Pinkleton and Funabiki 2007). In follow-up analyses, they determined that *positive* rather than negative affect toward the media text(s) being critiqued in media literacy instruction—the paradox or boomerang effect—can occur due to greater understanding of the process involved in creating the text(s) to be appealing to audiences. Byrne (2009) advances construct activation and priming processes as explanations for boomerang effects in media literacy. Nathanson and Botta (2003) found that critical comments about body size and shape of media characters by parents meant to help young people can actually lead to greater processing of those images and subsequent *negative* emotion. Why such unintended outcomes occur for some participants and not for others and for some measures and not others should be the subject of future studies across the spectrum of media literacy analysis (in violence, body image, etc.).

Finally, we would characterize some of the results of the present study as equivocal, including the fact that the change in attitudes toward aggression occurred in the predicted direction (toward more criticism/less acceptance) but did not achieve statistical significance. Future research with a larger sample size should explore whether this was a function of reduced power in the present study. Furthermore, there was no real evidence that a curriculum such as the one employed here can stimulate a change in young people’s overall approach to conflict as measured by their conflict styles. This is not too surprising given the considerable stability of conflict styles within one’s personality (Wilmot and Hocker 2000), but it shows, nonetheless, the challenge of this sort of work.

Because we did not employ a control group, we cannot claim unambiguously that changes in responses reported before compared to after the curriculum were caused by the media literacy instruction. The lack of a control group that did not participate in the curriculum precludes the ruling out of some external influence (rather than the curriculum itself) contributing to changes in the sixth graders’ responses. However, practically speaking, it would be difficult to fathom an external influence that would shape the knowledge and attitudes of dozens of sixth graders in five different classrooms in three separate locations. Thus, we present our pre- and post-curriculum comparisons with a fair degree of confidence that they are, indeed,

largely attributable to the students’ participation in the curriculum.

An additional limitation is that pre- and post-curriculum data could only be matched up for 57 of the original 89 participating students. Some students failed to put their names, initials, number codes or other identifying marks on one or both of their questionnaires. Other students were absent on one or more of the data collection days or for one or more of the sessions of the curriculum and therefore were excluded from the final sample. The result is that power is compromised in the analyses. It is possible that some of the results that approached significance would have achieved significance with a larger sample, but only future research can determine if that is the case.

The use of college students as the facilitators of the program could pose a limitation to the study, as well. It is possible that there were threats to implementation fidelity since different groups of college students worked with different classrooms. This possibility was limited by the extensive training of all participating college students, as well as the fact that every session was observed by one or more of the authors. However, variation is still likely to exist. Furthermore, although we have studied the learning and experiences of the participating college students in similar media literacy programs in the past (Scharrer and Cooks 2006b), no formal data were gathered in this particular iteration. The college students wrote reflection papers and journal entries, however, which do show they found the experience beneficial, memorable, and gratifying.

Despite these central limitations, as well as the possibility of social desirability bias operating in the data and a curriculum that was perhaps too crowded or overly ambitious, there are enough provocative results to justify expansion of this line of research in the future. In order for media literacy to gain institutional recognition and permanence, data are needed to show which approaches are most likely to be beneficial to students and which are less so. And, in order to help young people to negotiate the conflicts and difficulties they experience in their day-to-day lives, the enormous appeal of media should be harnessed to present a relevant, interesting, and multi-faceted approach to the topic in school. If such curricula can effectively challenge media models in which conflict is met with aggression and encourage among young people a more peaceful approach to conflict, they deserve a place in the classroom.

Table 1. Repeated measures ANOVA, $N = 57$.

	Pre-test means		Post-test means		F	df	sig.	η^2
	M	F	M	F				
Normative beliefs about aggression index	27.64 (4.80)	28.50 (3.73)	27.05 (5.50)	28.78 (3.61)	0.54	1, 38	<i>ns</i>	.00
Mean world syndrome item*	3.03 (1.38)	2.85 (0.93)	2.62 (1.42)	3.55 (1.10)	5.31	1, 52	< .05	.09
Learning aggression item*	3.31 (1.28)	3.20 (1.15)	2.97 (1.32)	3.65 (1.27)	3.40	1, 52	.06	.06
Desensitization (violence is common) item*	3.45 (0.99)	3.33 (1.24)	3.90 (1.07)	3.67 (1.28)	0.07	1, 36	<i>ns</i>	.00

* Coded so that higher responses indicate *less* agreement that such a media effect is likely to occur.

Table 2. Cross-tabulations with chi-square, measuring changes in responses to conflict scenarios from pre-curriculum to post-curriculum.

Pre-curriculum	Post-curriculum	
	Aggressive response	Non-aggressive response

Aggressive response	$n = 6$ 50.0%	$n = 17$ 55.4%
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Non-aggressive response	$n = 6$ 50.0%	$n = 12$ 44.6%
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$\chi^2 = 3.49, p = .08, \text{Kendall's } T = .30, p = .08$

	Scenario 2: Ridiculing your test grade	
	Aggressive response	Non-aggressive response

Aggressive response	$n = 8$ 88.9%	$n = 6$ 18.2%
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Non-aggressive response	$n = 1$ 11.1%	$n = 27$ 81.8%
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$\chi^2 = 15.91, p < .001, \text{Kendall's } T = .61, p < .001$

	Scenario 3: Tripping you and laughing	
	Aggressive response	Non-aggressive response

Aggressive response	$n = 2$ 66.7%	$n = 5$ 14.7%
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Non-aggressive response	$n = 1$ 33.3%	$n = 29$ 85.3%
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$\chi^2 = 4.85, p < .05, \text{Kendall's } T = .36, p < .05$

¹ The loadings for the first component were *make disagreements seem not important* .65, *make our differences seem less serious* .63, *tell myself the argument is not a big deal* .54, *keep quiet about my views to keep others from arguing* .52, *meet other person halfway* .51, *willing to give in a little if other person does, too* .50, *rather not say anything at all than argue* .48. For the second component: *keep arguing until my point is accepted* .74, *raise voice when trying to get others to see my point of view* .70, *take a tough stand, refusing to give in* .58. The first component had an eigenvalue of 2.37 and explained 19.72% of the variance in the concept and the second component had an eigenvalue of 2.03 and explained an additional 16.9% of the variance.

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