Cyberbullying Prevention: The Development of Virtual Scenarios for Counselors in Middle Schools

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This study sought to develop meaningful and engaging virtual cyberbullying scenarios in digital environments that reflect the educational needs of today's adolescents. In order to inform and script these scenarios, a three-stage study was implemented with middle schools. This paper describes how data collected in each stage informed the cyberbullying scenarios' development. The authors share implications for educational use in middle school counseling.

Keywords: cyberbullying, technology, adolescents, middle school counseling, digital environments

Today's adolescents are often referred to as the *Net Generation* (Tapscott, 1998) because they communicate with each other through a multitude of digital and electronic technologies, including the Internet, social networking tools (e.g., Twitter, Facebook, MySpace), cell phones, and online games. Because these digital and electronic tools function as the "lifeline to their peer group" (Keith & Martin, 2005, p. 226), adults can underestimate the importance of technology to adolescents. While the expansion and availability of technology offer many positive benefits to our youth (e.g., educational and social benefits), access to the Internet and mobile technologies have the potential to render negative effects, including increased incidences of cyberbullying.

Defining Cyberbullying

Cyberbullying is a form of bullying, yet unlike the traditional schoolyard bully, the cyberbully lurks in online spaces, often unseen and anonymous. Cyberbullies misuse technology (e.g., they impersonate others, share embarrassing information and photos, threaten, gossip, and fight online) (Willard, 2006). With the use of technology, the cyber landscape has expanded into easy and continuous access, and is described as operating like "the Wild West once did, where anything goes" (Hoff & Mitchell, 2009, p. 661). In this light, youth can engage in computer-related activities without boundaries or parental supervision.

While negative assertions about technology are disconcerting and cannot be ignored, online and mobile technologies continue to evolve and present positive and beneficial ways to teach the students of today and tomorrow. With the value of technologies in mind, the obstacles in cyberspace and the virtual world need to be addressed. Thus, for teachers, principals, and school counselors, an overarching challenge is presented by such questions as: (1) How do we teach students to protect themselves in digital environments and prevent negative interactions such as cyberbullying? and (2) How can technology be used as a vehicle to educate adolescents and to raise their awareness of cyberbullying?

The purposes of this study were threefold: (1) to use adolescent feedback to script and create cyberbullying video scenarios in a safe, virtual environment; (2) to offer free access to the videos for educational use; and, (3) to raise awareness of cyberbullying and to underline the need for prevention. This study focused on middle school students because the literature has shown a peak in cyberbullying during these school years (Beale & Hall, 2007; Cassidy, Jackson, & Brown, 2009; Hinduja & Patchin, 2008; Kowalski & Limber, 2007; Li, 2007; Pelligrini & Bartini, 2000; Williams & Guerra, 2007). Because few studies have recreated cyberbullying situations, assessing the effectiveness of such scenarios

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in the field of education is important. Addressing this gap can provide valuable, alternative educational methods to school counselors and other mental health professionals, as well as parents, school administrators and teachers (Carney, 2008; Wright, Burnham, Inman, & Ogorchock, 2009).

Review of the Literature

Virtual worlds, digital videos, and gaming can supplement education, making concepts that are abstract or difficult to understand interesting, relevant, and concrete through modeling and interaction (Williamson & Facer, 2004). Virtual technologies also provide students with a safe place that replicates the real world, allowing for ongoing educational interactions (Paperny & Starn, 1989). Yet, research on the use of virtual worlds, digital videos, and gaming to teach adolescents about cyberbullying is limited (Wright et al., 2009), even though technology has been effectively used to teach skills and train youth.

Several published studies have illustrated the value of virtual technology. For example, Cobb et al. (2002) reported that completing tasks in a virtual social café helped adolescents and adults with Asperger's syndrome improve their social skills. Similarly, Padgett, Strickland, and Coles (2006) reported success in using a virtual reality game to teach five children with fetal alcohol syndrome fire safety skills. In another study, Amon and Campbell (2008) used a virtual game to teach relaxation skills to children with attention-deficit/hyperactivity disorder (AD/HD). Researchers also have reported success in using virtual scenarios and simulations to raise awareness of concepts, including the development of professional skills in teacher education graduate programs (Collins, Cook-Cottone, Robinson, & Sullivan, 2004), improving attitudes for decreasing teenage pregnancy (Paperny & Starn, 1989) and coping with fears such as public speaking (Slater, Pertaub, & Steed, 1999) and flying (Krijn et al., 2007).

Using a Virtual Environment to Create Cyberbullying Scenarios

The virtual world environment was chosen for this study because of a significant need to provide access to factual and authentic cyberbullying scenarios in an environment that was safe and one that would not compromise the well-being, psychological health, or rights of youth. Studies have suggested that using a virtual environment can be a valuable and safer alternative for conducting research (Zoll, Enz, Schaub, Aylett, & Paiva, 2006) and may make collecting sensitive data more appealing in educational research. Further, researchers have reported that interactions in virtual environments "are governed by the same social norms as social interactions in the physical world" (Yee, Bailenson, Urbanek, Chang, & Merget, 2007, p. 119), making it possible to compare the virtual interactions with interactions in the real world. Finally, adolescents are often motivated to learn about issues and concepts through video or computer games rather than through traditional instructional methods (Ritterfeld & Weber, 2006). With these factors in mind, we reiterated an interest in using virtual world scenarios to raise awareness of cyberbullying and to simultaneously offer an "attractive, but also a potentially powerful means of getting the attention of adolescents" (Wright et al., 2009, p. 40). Having cyberbullying videos to prompt discussion among youth offers school counselors, as well as classroom teachers, additional ways to deal with the challenges they face with cyberbullying.

Choosing Second Life

Second Life (SL) was chosen as the virtual environment for this current study because it "dominates the virtual world landscape" (Warburton, 2009, p. 423) in education. Linden Lab launched SL in 2003. The immersive, three-dimensional (3-D) virtual environment of SL offers users an opportunity to create or re-create situations, interactions and experiences through the use of avatars, which are animated figures that represent real people. Complete communities, schools and businesses have been recreated in SL. Although educators have benefited from specific Linden Lab invitations to explore SL for teaching, learning and research (O'Conner & Sakshaug, 2009), SL and other virtual communities (e.g., Active Worlds, WebKinz) are considered new innovations on the technological landscape. In recent years, researchers have collected anecdotal and empirical data related to virtual environments including potential uses and effectiveness in role-play and student-centered learning (Inman, Wright, & Hartman, 2010).

Second Life Challenges

Second Life offers users the ability to create virtual content that replicates the real world, truly providing a "second life" (hence, the name). However, creation within SL is not without its challenges (O'Conner & Sakshaug, 2009). The challenges often faced with SL are multifaceted. First and foremost, there is a learning curve for a developer to overcome before creating objects and simulations within the SL environment (Luo & Kemp, 2008; O'Conner & Sakshaug, 2009). Warburton (2009) noted that "even simple things can take a long time" and may require "multiple skills" (p. 423). Furthermore, SL computing requirements are high; if developers are not using high-capacity computers (e.g., fast processors, graphics cards) and broadband Internet (e.g., cable or DSL connections or faster), they could experience difficulty with such problems as operating the SL software, intermittent freezes, and software system failure. Institutional financial support of SL-designed environments is advantageous, although not always available.

With the need for virtual environment scenarios to combat cyberbullying, this study included three stages of data collection with middle school students in one school district in the southeast. Data from the first two stages (i.e., a quantitative cyberbullying survey and a focus group, respectively) informed the scripts of the cyberbullying scenarios produced from this present study. The goal for each scenario was to most accurately reflect the students' beliefs about and experiences in cyberbullying and address their perceived needs for cyberbullying education and prevention. The present study included the following steps: (1) scripting and building the cyberbullying scenarios, (2) using screen-capturing software to capture the videos, and (3) saving the videos as separate files. By following this plan, the researchers maintained a "safe" environment for the students by screen-capturing the scenarios created in SL, thus preventing the students' need to go online to view the scenarios.

Method

Participants

After Institutional Review Board (IRB) and school system approval, the researchers worked with five middle school principals to conduct this study. Approximately 450 middle school students in Grades 7 and 8 (ages 12–14) were invited to participate in the quantitative study, which was the first stage of data collection. Of the invited students, 114 returned signed parental informed consents and assented to take part in the study. Of the 114 students, 50 were male and 64 were female; 73 were in 8th Grade, with the remaining participants in 7th Grade. The racial backgrounds included: 33 White students, 67 African-American students, 3 Hispanic/Latino students, 2 Asian-American students, and 9 who did not identify their racial background.

At the end of the survey, the respondents indicated a willingness to participate in subsequent stages of the study. From these, the researchers recruited a convenience sample of 20 students from two of the five middle schools (one high-poverty school; one low-poverty school) to participate in the qualitative study, stage two of our data collection. Of the invited, 13 students participated from two schools. School A included seven students (4 boys, 3 girls) and racial backgrounds were: 1 White student, 5 African-American students, and 1 Hispanic student. School B included six students (4 boys, 2 girls) and racial backgrounds were: 4 White students and 2 African-American students.

Lastly, two 8th Grade students (1 White male and 1 White female) who indicated willingness to participate in all stages of the study were recruited to view the pilot cyberbullying scenarios, which were scripted and informed by data collected in the first two stages of this research study. Both students viewed the scenarios individually and provided feedback to assist with final editing of the videos.

Instruments

For the first stage of the study, the researchers were given permission to adapt Li's (2007) Cyberbullying Survey. Data included middle school students' responses to various cyberbullying questions (e.g., "Have you been cyberbullied?" "Do you know a cyberbully?" and "Where did cyberbullying most often occur?"). Contextual examples were given in each question, such as for "have you been cyberbullied?" examples included e-mail, Facebook, cell phone, online video, chat rooms, and virtual games.

For the focus group stage, facilitators generated discussions between the participants about how they recognized, defined and responded to cyberbullying. For example, questions included: "If you or someone you know have been cyberbullied, how have you/they been cyberbullied?" "What did you/they do immediately after you/they were cyberbullied?" "Did you/they tell someone? Retaliate online?" After this stage, cyberbullying scenarios were developed based on the data gathered from this aspect of the study.

Following the development of the cyberbullying scenarios, the researchers sought to record participants' reactions and comments as they watched the two video scenarios created as a result of data collected in the first two stages of data collection. Following the participants' individual viewing of the scenarios, the researchers also asked specific questions (e.g., scenarios' clarity, misinterpretations experienced, the setting of the scenarios, and perceived value of the scenarios in cyberbullying education for middle school students).

Procedure

The researchers worked at a major university in the southeastern U.S. where an effort to develop a teaching and research presence within SL was ongoing. The College of Education at the institution had "land" within SL and developed teaching and research spaces within the virtual environment. Several of the university's computer-based honors students were involved in this development and partnered with university professors to conduct research while simultaneously receiving college credit. The researchers were assigned two honor students who were asked to develop counseling-related scenarios in SL.

To ensure cultural sensitivity, the researchers also consulted with an African-American colleague who works with high-poverty schools. Feedback from the colleague was sought to determine whether or not the language and scenarios were realistic and applicable. In addition, after the SL developers rendered the videos, two additional colleagues (a counselor with expertise in multicultural education and an instructional technology expert) reviewed the videos. These discussions helped to validate the scripting choices and ensure appropriateness and cultural sensitivity for use with middle school students.

The researchers triangulated the focus group and survey data (Stages I and II) to inform the development of the cyberbullying scenarios and to script the two scenarios. In order to achieve meaningful scenarios that reflected the educational needs of the adolescents, we drew heavily upon data from the focus groups to ensure that the scenarios reflected the students' voices (e.g., language use), their actions (e.g., reactions to cyberbullying situations, linguistics), and the technologies they most used (e.g., social networking) while also providing the needed educational messages.

The data revealed a need for two separate scenarios (i.e., one with a behaviorally-based concept and one with an educational concept). Informed through the focus group data, the behaviorally-based scenario focused on "how gossip escalated into cyberbullying" as two girls wrote on each other's "wall" on Facebook. Data from the first two stages of data collection indicated a need for adults and educators to better understand how to educate and raise awareness of cyberbullying prevention; therefore, the educationally-based scenario focused on a discussion between a school counselor and a middle school-aged boy who sought advice on how to cope with an online joke that "got out of hand" or escalated.

Once the two scenarios were completed and the videos rendered, we recruited two 8th Grade participants (one male, one female) from the pool of middle school students to participate in the current study. The participants viewed the videos in the presence of two faculty members and one graduate student. The researchers examined the students' reactions and nonverbal behaviors as they viewed the scenarios. Following each student's viewing, they were asked specific questions regarding the scenario's clarity, its setting, the length, and any misinterpretations the students might have about each scenario.

Results

Scenario One

Scenario I, "Mark Goes to the Counselor," was the educationally-based video (i.e., the school counselor listens to a student regarding a Facebook joke that escalated into a problem). Based on focus group feedback from adolescents, this educational scenario fulfilled a need for adults and counselors to be more aware of how to prevent cyberbullying.

While the students viewed "Mark Goes to the Counselor," they pointed out minor problems with the rendered scenario. For example, the male participant (Rick) was distracted by the avatar's movements. He stated that the counselor's hand movements were "awkward." Rick's other major concern had to do with the buildings in the scenario, noting that they "looked too academic" as compared to a middle school setting. The female participant (Bridget) was not as distracted by the avatar's movements. She noted that the scenario seemed "realistic" to her. From the researchers' observations, the scenario engaged the participants. In the ensuing discussions following the scenario, both students noted the educational value of the scenario for their peers.

Because "Mark Goes to the Counselor" had an interactive segment at the end which posed questions related to cyberbullying, the students also critiqued this part of the video. Reponses from both students included information about the appropriateness and usefulness of the questions. The students believed that the questions would generate discussions about cyberbullying prevention and how to "deal with it (cyberbullying)."

Scenario Two

Data also informed the scripting of second scenario, "Aisha and LaTosha on Facebook." This behaviorally-based scenario focused on two adolescent African-American girls who were involved in online gossiping (via Facebook) which quickly escalated into a cyberbullying incident. The social network, Facebook, was chosen for this scenario because it is recognized as the most popular social networking medium (see online data collection venues which monitor web traffic such as Nielsen, Compete, ComScore, and others) and remains popular among adolescents.

For this scenario, capturing the texting exchange between the girls was important to illustrate how the gossip escalated. However, a texting exchange presented problems for the scenarios' developers. Basically, the initial text messaging exchange that was sought for the "Aisha and LaTosha on Facebook" video was illegible and difficult to understand on the first attempt. Thus, the scenario had to be reworked prior to the students' viewing.

About two months later, the same male and female participants (*n* = 2) agreed to critique the second video. While viewing "Aisha and LaTosha on Facebook" on a laptop, the male participant (Rick) paused the video frequently, pointing out technical issues he noticed. For example, a few seconds into viewing he commented on "bad timing" between the sound of the avatars' typing and the typing movements the girls made on the computers. Moments later, he paused again, this time pointing to a cursor which was located over the text. He noted how difficult it was to read one of the girl's texts as she posted on the Facebook wall. Rick also believed that some of the text and punctuation was "too grammatically correct." He remarked, "teens don't use that" giving a specific example of using a "w" with a slash (/) mark (w/) versus typing the word "with" and that teenagers use "u" for you. He stated that we should make the "grammar more teen-like." Rick also commented that it would be more likely for the two girls to have this type of conversation (i.e., depicted in the scenario) in "chat" versus "posting on each other's wall in Facebook."

Another video quality issue was resolved with participant feedback. While the second scenario was written to focus on the conversation of two girls and their gossip, a third girl (Sierra) also was present at the beginning of the scenario. Rick believed that Sierra's presence was confusing and thought she should be removed.

Upon completion of the video, Rick had additional comments regarding the actual scenario production. After viewing, we asked if Rick believed the scenario made sense. He said "yes" and that he could "follow along." We also asked Rick what message he received from the scenario. This question caused him some difficulty and after being prompted a second time, he stated that the scenario depicted how "gossip starts" and illustrated how students should not "jump to conclusions

so quickly." Lastly, we asked Rick his opinion regarding our choice to use Facebook in the scenario versus other social networking sites. Rick emphatically agreed that Facebook was the right choice. He stated, "…no one uses MySpace anymore."

Bridget, also in 8th grade, watched most of the video without conversation. She had one comment while viewing the "Aisha and LaTosha on Facebook" video, but waited until viewing the video completely before making additional comments. Her initial comment concerned a portion of the script in which one of the girls threatened to get some people together to "jump you." Bridget laughed quietly as she viewed that portion of the video and remarked, "I've heard people say that." Bridget focused less on the technology in her analysis; however, she did comment that at times the video was "a little blurry" and that the avatars' movements were "a little *fakish*." She also put forth the idea that the video needed a transition at the end (i.e., the first version of the video ended abruptly).

Bridget inquired about how we came up with the idea and thought it was "neat." Similar to Rick, Bridget also struggled to answer the question: "What was the message in this video?" Once more, we asked a series of questions before an answer was given. After several prompts, Bridget stated, "…students should not accuse people of stuff." We also asked, would this scenario prompt you to discuss cyberbullying? She noted "maybe." We asked, "Can teachers and/or counselors successfully use this scenario in a group setting with middle school students to discuss cyberbullying?" She answered "yes" and that the scenario seemed "realistic." Bridget believed the scenario would be very helpful in education because acting it out in person "would be awkward." She stated that this video "… has elements in it that kids see all the time." When asked about technological distractions in the video, Bridget indicated that the television in the video needed a better screen, (i.e., "something natural on it") and it would be nice to have some music in the background for the two girls.

The two students had some level of disagreement in their critiques. Unlike Rick, who indicated that the scenario was more appropriate for 6th grade, Bridget believed that it "sounded like an 8th grade conversation and would probably be good for 7th graders, but "6th graders talk differently." Bridget also liked the wall-to-wall design in Facebook and did not agree with Rick that the girls' conversation should occur, instead, through the Facebook chat tool. The way the text was typed was also okay with Bridget; although she noted how she "typed nicely." Further, the appearance of Facebook was fine with her, and she believed that the attire on the girls was appropriate. She was in agreement with Rick about removing the girl, Sierra, from the video. Both saw her presence as confusing. She also aligned with Rick on the view that "all students used Facebook instead of MySpace."

From this session, it was apparent that revisions were necessary with the "Aisha and LaTosha on Facebook" scenario. While Rick and Bridget affirmed that the scenario was realistic, when the video ended both were unclear of the overall message of the video (i.e., they needed prompting twice to articulate the message of the video). The interactions with the two middle school students made it clear that some questions added to the video would facilitate interactive discussions among youth. We discussed potential questions with both students. By incorporating the language from the data and student input after watching the videos, we developed the following questions: (1) Whose fault was this fight? (2) If someone is mean to you and spreading rumors, what could you do instead of doing what Aisha and LaTosha did? (3) How would you respond to Aisha? (4) When should you get an adult involved? Who can you turn to for help? And, (5) What are some other steps you could take to make sure this type of situation doesn't happen to you?

After Rick and Bridget reviewed the video, a list of technical changes for the developers to make on the "Aisha and LaTosha on Facebook" scenario was assembled. They included:
1. Review the punctuation and grammar; make some modifications to better fit with punctuation and grammar that teens do and do not use. (Although the script was initially written using actual statements from adolescents who participated in our focus groups, we realized additional modifications could be made, such as using "w/" instead of *with* and "u" for you).
2. Revise the first part of the script, eliminating the character, Sierra.
3. The avatars frequently correct typing errors; change this to ensure that the typing text is more "teen-like" and less concerned with spelling errors.
4. Add questions at the end of the video for class or one-on-one discussions (i.e., an educational component for teachers and counselors).

5. Add music to the background at Aisha and LaTosha's homes.
6. Put a realistic scene on the television.
7. Add a transition at the end; the scenario ended too abruptly—fade to black at the end and then bring up the questions.

The participants also discussed how the argument between Aisha and LaTosha should take place (i.e., via Facebook chat or "wall-to-wall"). While Rick seemed adamant about using chat features of Facebook, Bridget was not as concerned, believing that similar conversations do take place wall-to-wall. After much discussion, we decided to keep the text interaction between the two girls as wall-to-wall postings since the production in the virtual world would be clearer to read, based on previous problems experienced by the developers.

Discussion

As noted earlier, cyberbullying is a growing concern for today's adolescents. The purpose of this study was to use data to inform the scripting of two counseling scenarios that could be used for cyberbullying prevention with middle school students. Using a virtual environment to "act out" the scripts and later capturing the scenarios for off-line viewing was intentional and purposeful. While research on using virtual environments to teach cyberbullying prevention is limited (Wright et al., 2009), the use of virtual worlds to teach other skills and concepts has been successful (Amon & Campbell, 2008; Cobb et al., 2002). Further, using virtual worlds can offer a safe place to conduct scenarios of sensitive content (such as cyberbullying) (Zoll et al., 2006) while allowing for real world replications that can be engaging (Paperny & Starn, 1989). Thus, the intent of developing the scenarios was to provide a safe, alternative educational method for counselors and other helping professionals, as well as parents, to use in cyberbullying education and prevention, while assuring that the well-being and rights of youth are upheld.

There were limitations to this study. First, this study focused on one school system in one state, thus generalizability to other middle schools is questionable. Second, video feedback from a more diverse population of students (e.g., African-American girl, feedback from 6th and 7th grade students) would have been helpful.

The data informed our production and scripting, thus allowing the students' voices to emerge in these scenarios. We believe reflecting the students' voices, their actions, and the technologies they most use throughout the scenarios' development provides further engagement in what can be more "teen-like" and meaningful to this specific audience. In the future, another phase of this study is needed. Feedback from school counselors, teachers, and students in diverse school settings will inform the researchers about the usefulness of the videos and whether or not additional videos are merited. It will be important to evaluate the effectiveness of the videos in terms of capturing students' attention and facilitating useful discussions about cyberbullying. If additional videos are made in the future, we would make modifications. For example, we would seek diverse school populations for each phase of the study and note the potential differences across students in grades 6–8.

We learned several lessons from this study that can inform future studies. (1) Iterations of the videos take time. Based on the data, both scenarios were reworked to reflect student participant input and concern; (2) Although working in a virtual environment presents challenges to researchers, we believe it can be a viable and safe medium to educate adolescents about cyberbullying prevention; (3) Creating fluid movements in SL can be problematic (e.g., awkward movements of avatars were sometimes distracting to the students); (4) By capturing the videos for off-line viewing, the scenarios can be utilized in multiple educational settings (e.g.. lecture, small groups, large groups, or individual viewing sessions); and (5) Videos offer "ice-breakers" to generate further discussions about cyberbullying prevention and intervention.

Implications for School Counselors

Cyberbullying-related deaths have continued to rise in recent years (e.g., Jesse Logan [Starr, 2009] and Hope Witsell [Inbar, 2009]) in 2009, Phoebe Prince in 2010 [McCabe, 2010], Tyler Clementi [Freidman, 2010], Natasha MacBryde [Loveland, 2011], and Britney Tongel [Leskin, 2011] and Amanda Cummings [Calabrese, 2012], in 2011 and 2012, respectively). With the fact that many of the given cases reached the point of suicide in high school underlines the need to focus on cyberbullying interventions in middle school, where literature has noted it peaks (Beale & Hall, 2007; Cassidy et

al., 2009; Hinduja & Patchin, 2008; Kowalski & Limber, 2007; Li, 2007; Pelligrini & Bartini, 2000; Williams & Guerra, 2007). Reaching students before cyberbullying gets to the point that adolescents would consider suicide is critical.

This study is important because adolescents' use of digital tools will continue to grow and evolve as technology tools (i.e., smart phones, mobile devices, social networking tools) become more accessible. Counselors, educators and parents cannot underestimate technology's importance in adolescents' lives. Instead, adults need to seek positive uses of technology for educational and social purposes, as well as prevention and intervention. We believe this study offers familiar technologies that students use everyday (e.g., videos in this study, Facebook) to raise awareness of cyberbullying and its consequences. Other commonly used tools also could be leveraged in similar educational endeavors (e.g., Facebook groups, Twitter) in the future, assuming the voices of adolescents are considered.

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