ABSTRACT

THE CHARACTERISTICS AND DEGREE OF TRADITIONAL BULLYING AND CYBERBULLYING IN THE SCHOOLS

Due to the increase in the use of technological devices, bullying has changed to include a newer form called cyberbullying. Although a number of studies have examined the characteristics of children involved in cyberbullying, the results are unclear. The present study investigated the relationship between traditional and cyberbullying, as well as the relationship between demographic variables such as gender and ethnicity and cyberbullying. A total of 169 middle school students from Central California completed a questionnaire regarding their experiences in bullying. The results indicated that students involved in traditional bullying were also likely to be involved in cyberbullying. Ethnicity was significantly related to cyber victimization, with students identified as “other” more likely to be victimized. Gender was significantly related to traditional victimization, with females significantly more likely to be a victim of traditional bullying. Text-message and picture-phone bullying were more common than internet bullying, and students with greater access to electronic devices were more likely to be victims of cyberbullying. The results are discussed in terms of their possible impact on school policy.

Katelyn Kelly
May 2010
THE CHARACTERISTICS AND DEGREE OF TRADITIONAL
BULLYING AND CYBERBULLYING IN THE SCHOOLS

by
Katelyn Kelly

A thesis
submitted in partial
fulfillment of the requirements for the degree of
Educational Specialist in School Psychology
in the School of Science and Mathematics
California State University, Fresno
May 2010
APPROVED

For the Department of Psychology:

We, the undersigned, certify that the thesis of the following student meets the required standards of scholarship, format, and style of the university and the student's graduate degree program for the awarding of the master's degree.

________________________________________
Katelyn Kelly
Thesis Author

Karl Oswald (Chair) Psychology

Marilyn Wilson Psychology

Hyyon Palmer San Diego Unified
School District

For the University Graduate Committee:

________________________________________
Dean, Division of Graduate Studies
AUTHORIZATION FOR REPRODUCTION
OF MASTER’S THESIS

____ X ____  I grant permission for the reproduction of this thesis in part or in its entirety without further authorization from me, on the condition that the person or agency requesting reproduction absorbs the cost and provides proper acknowledgment of authorship.

____________  Permission to reproduce this thesis in part or in its entirety must be obtained from me.

Signature of thesis author: ____________________________________________
ACKNOWLEDGMENTS

I would like to thank my amazing husband for encouraging and supporting me throughout my education. In addition, I thank my friends and family for their optimistic points of view and constant belief in me. Lastly, I want to say thank you to my committee for their assistance, feedback, and knowledge. This thesis would never have been finished without all of your help. Thank you!
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>vii</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>2. CHARACTERISTICS OF CYBERBULLYING</td>
<td>3</td>
</tr>
<tr>
<td>Relational and Overt Aggression</td>
<td>3</td>
</tr>
<tr>
<td>Traditional and Cyberbullying</td>
<td>5</td>
</tr>
<tr>
<td>Characteristics of Bullies and Victims</td>
<td>11</td>
</tr>
<tr>
<td>Cyberbullying Effects on Schools</td>
<td>17</td>
</tr>
<tr>
<td>Conclusion</td>
<td>21</td>
</tr>
<tr>
<td>3. METHOD</td>
<td>26</td>
</tr>
<tr>
<td>Participants</td>
<td>26</td>
</tr>
<tr>
<td>Materials</td>
<td>28</td>
</tr>
<tr>
<td>Procedure</td>
<td>29</td>
</tr>
<tr>
<td>4. RESULTS</td>
<td>31</td>
</tr>
<tr>
<td>Descriptive Statistics</td>
<td>32</td>
</tr>
<tr>
<td>Relationship Between Traditional Bullying and Cyberbullying</td>
<td>34</td>
</tr>
<tr>
<td>Relationship Between Gender and Bullying</td>
<td>35</td>
</tr>
<tr>
<td>Relationship Between Ethnicity and Bullying</td>
<td>37</td>
</tr>
<tr>
<td>Relationship Between Electronic Devices and Bullying</td>
<td>38</td>
</tr>
<tr>
<td>The Effects and Purpose of Cyberbullying</td>
<td>38</td>
</tr>
<tr>
<td>5. DISCUSSION</td>
<td>41</td>
</tr>
<tr>
<td>A Comparison of Results to Prior Findings</td>
<td>41</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Electronic Devices and Cyberbullying</td>
<td>45</td>
</tr>
<tr>
<td>Qualitative Results</td>
<td>46</td>
</tr>
<tr>
<td>Suggestions for School Policy</td>
<td>47</td>
</tr>
<tr>
<td>Critiques and Limitations</td>
<td>48</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>51</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>56</td>
</tr>
<tr>
<td>A. INTERNET EXPERIENCES QUESTIONNAIRE</td>
<td>57</td>
</tr>
<tr>
<td>B. SCRIPT TO INTRODUCE QUESTIONNAIRE</td>
<td>61</td>
</tr>
<tr>
<td>C. INFORMED CONSENT FORM</td>
<td>63</td>
</tr>
<tr>
<td>D. FORMATO DE CONSENTIMIENTO INFORMADO</td>
<td>65</td>
</tr>
<tr>
<td>E. MINOR CONSENT FORM</td>
<td>67</td>
</tr>
</tbody>
</table>
**LIST OF TABLES**

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demographic Information of Participants (N = 169)</td>
<td>27</td>
</tr>
<tr>
<td>2. Frequency of Participant Responses to Victimization Items (N = 169)</td>
<td>31</td>
</tr>
<tr>
<td>3. Frequency of Participant Responses to Bullying Items (N = 169)</td>
<td>31</td>
</tr>
<tr>
<td>4. Frequency of Participant Responses to Victimization Type Items (N = 169)</td>
<td>32</td>
</tr>
<tr>
<td>5. Frequency of Participant Responses to Cyber Victimization Occurrence Items (N = 169)</td>
<td>32</td>
</tr>
<tr>
<td>6. Prevalence of Traditional and Cyberbullying and Victimization (N = 169)</td>
<td>33</td>
</tr>
<tr>
<td>7. Chi-Square Test of Independence Results (N = 169)</td>
<td>35</td>
</tr>
<tr>
<td>8. Correlation Matrix (N = 169) of Participant Experiences as Traditional and Cyberbullies and Victims</td>
<td>36</td>
</tr>
</tbody>
</table>
Chapter 1

INTRODUCTION

Vast improvements in the realm of technology have resulted in a large increase in the number of people who have access to computers, the Internet, and cell phones. Not surprisingly, these items have found their way into many homes and schools throughout the world. As changes in technology have occurred, so have the methods of bullying. A new form of bullying known as cyberbullying has emerged from these technological advances. Cyberbullying is described as bullying through technological means such as emails, cell phones, websites, chat rooms, and text messaging (Brown, Jackson, & Cassidy, 2006; Campbell, 2005; Shariff, 2005). Common examples of cyberbullying include online blogs dedicated to ridiculing one student where others can join and post comments about the person, sending mass emails about one child to large groups of his or her classmates, and text messaging a student threatening or hostile messages throughout the day. While bullying has been a significant topic of concern for school policy makers, cyberbullying has not yet been adequately addressed. More information is needed in order to examine the nature and extent of cyberbullying and how it affects students within the school system.

It is essential to differentiate bullying from ordinary teasing and playground jokes. A misconception is that some forms of bullying are trivial and will merely serve as experiences that will help the child deal with “real life” situations. Shariff (2005) explains that “bullying is always unwanted, deliberate, persistent, and relentless, creating a power imbalance between perpetrator(s) and victim” (p. 459). This is an important distinction when examining traditional bullying as well as
cyberbullying. Victims are not children who have experienced normal and age-appropriate mockery; they are children who have been purposefully harassed by a peer. The outcomes of bullying can include mild behavioral, emotional, and academic problems, dropping out of school, and the development of a serious mood disorder. Regrettably, some students who had been cyber-bullied have even committed suicide due to the harassment they endured by an unknown party (Brown et al., 2006; Shariff & Gouin, 2005). These are compelling reasons for school administrators to examine what types of children are likely to be involved in cyberbullying, what discourages or promotes seeking help from an adult, and what policies may be effective in reducing the amount of traditional and cyberbullying on and off the school campus.

The current study examined the extent of cyberbullying in schools and the differences between the traditional forms of bullying and cyberbullying. In addition, it explored the relationship between demographic variables and cyberbullying. More specifically, this study considers the involvement of males and females in bullying, as well as students from various ethnic backgrounds. The following section will focus on literature regarding relational versus overt aggression, the characteristics of traditional and cyberbullies, victims, bully/victims, and the implications of cyberbullying on school policy.
Chapter 2

CHARACTERISTICS OF CYBERBULLYING

Relational and Overt Aggression

Many researchers and professionals in education have become increasingly interested in the process of bullying and how to prevent it due to violent acts such as school shootings committed by youth. Columbine, Red Lake, and Virginia Tech are some of the more notable massacres that have led to speculations regarding whether the shootings occurred as a result of bullying. To appropriately deal with bullying, school professionals must be aware of the characteristics and effects of bullying, as well as ways to intervene and prevent bullying. When considering the characteristics of children involved in the bullying process, it is important to consider the forms in which children and adolescents bully one another, and whether or not retaliation will come in the same form.

The two types of aggression typically seen in bullying are relational and overt. The differences between relational and overt aggression have been widely studied. Overt aggression often comes in the form of a direct physical or verbal act. Relational, or covert, aggression is often more subtle and indirect, and can include social exclusion, humiliation, rumor spreading, and withholding friendship (Crick, Casas, & Mosher, 1997; Rose, Swenson, & Waller, 2004). A common finding has been that girls are more likely to engage in relationally aggressive acts than boys, who tend to exhibit more overtly aggressive behaviors (Crick et al., 1997). One possible explanation for this finding may come from perceived popularity. Rose et al. found a significant and positive relationship for seventh- and ninth-grade youths between relational aggression and perceived popularity.
Longitudinal analyses showed that for older girls, relationally aggressive acts were predictors of increased perceived popularity over time. The authors proposed that relationally aggressive behaviors (i.e., ignoring and social exclusion) may provide a means for girls to manipulate their peers and the social context in which they operate. A noteworthy finding from their study was that neither relational nor overt aggression were predictors of perceived popularity for boys.

Crick et al. (1997) examined the presence of relational and overt aggression in preschool. Although overt aggression is evident at early ages, the authors wanted to examine whether relational aggression, which is more difficult to observe, was equally apparent at a young age. The researchers asked the students to “nominate” peers for a series of questions regarding who is aggressive in class and in what ways. The study showed that approximately two-thirds of the preschoolers exhibited a form of aggressive behavior. Interestingly, a large number of students were nominated by their peers as overtly aggressive or relationally aggressive, but not both. This established that relational aggression by itself occurs at ages as early as 3 years old. An interesting aspect of this study was that the teachers’ ratings of the girls’ behaviors showed significantly more relational aggression than overt aggression, but the girls’ ratings of themselves did not. Teacher perception of student behavior is a crucial component in understanding aggressive behavior and bullying in the context of schools because teachers are typically the enforcers of school policy.

Teacher perceptions of aggressive behavior were also investigated by Bauman and Del Rio (2006). They conducted a study on preservice teachers’ responses to vignettes containing bullying in multiple forms. The researchers compared physical, verbal, and relational bullying to see if teachers respond differently to aggression depending on what form it takes. The results indicated
that preservice teachers found relational bullying as the least serious. They had less empathy for the victims in relational bullying scenarios, were less likely to intervene, and reported that they would not take as serious action against the relational bullies as they would for bullies in the physical or verbal bullying scenarios. The authors discussed the possibility that relational aggression is more difficult to deal with because of its ambiguity. When a teacher observes a physical or verbal confrontation between two students, he or she knows what has happened and often has clear school policy on how to discipline the students. Because relational aggression often takes the form of whispers (i.e., gossip, rumors) or indirect yet hurtful statements, the teacher often does not know the event occurred. In addition, even if he or she discovered the aggressive act, school policy is often unclear on how to manage these situations. Simmons (2002) also describes the dilemma teachers face in dealing with relational aggression. She points out that dealing with relational discord is often more time consuming than separating two boys because it demands attention to a more complex issue than shoving or shouting at each other. Perhaps a clear and understandable school policy on dealing with relational discord in a time-effective manner would increase the likelihood that teachers would intervene in relational bullying situations and discipline the bullies as severely as they would in any other situation.

**Traditional and Cyberbullying**

Bullying has been a widely researched topic for over 30 years. Aluede, Adeleke, Omoike, and Afen-Akpoida (2008) explained that bullying can emerge in multiple forms. The first appears to come in the form of overt aggression, through fighting, shoving, or making verbal threats. The other appears similar to relational aggression and can include gossiping and excluding. Both forms of aggression can
be seen in traditional bullying. However, due to the fact that cyberbullying occurs via technological means and is not done face-to-face, it would be categorized as a form of relational aggression. It is important to emphasize that all forms of bullying are repeated negative acts over time directed at a specific person. This is an imperative distinction between relational or overt aggression and bullying. A relationally or overtly aggressive act can occur between two students and might not occur again. In these situations, one person has not necessarily been targeted by another. In bullying scenarios, one student is targeted by another and harassed repeatedly over time by the same person.

While the topic of cyberbullying is relatively recent and has not been extensively studied, traditional bullying has been a topic of interest for quite some time. A focus on traditional bullying has continued due to the fact that it has remained a significant problem for students and school staff. Nansel et al. (2001) examined survey data collected by the World Health Organization, which included over 15,000 students in grades 6 through 10 in public and private schools throughout the United States. The researchers found that roughly one-third of the participants reported moderate to high involvement in the bullying process. As with other studies focused on bullying, the results indicated that middle school students (i.e., grades 6 through 8) had the highest involvement. For this reason, many studies focus on middle school students’ involvement in bullying. One such study was conducted by Seals and Young (2003). In this study, 454 public school students in seventh and eighth grade were administered the Peer Relations Questionnaire to determine their involvement in bullying. The questionnaire provided students with a definition of bullying, followed by questions regarding involvement in bullying, victimization and feelings towards the experience. Twenty-four% of the students reported being a bully and/or victim. Seventh-grade
students were significantly more involved than eighth-graders. The authors also examined the students’ levels of depression based on self-report data on the Children’s Depression Inventory. They found that bullies and victims were more depressed than uninvolved students, but that victims were significantly more depressed than bullies.

Students involved in traditional bullying have also reported other issues that may impact their educational and/or personal lives. Gini (2008) examined the relationship of elementary school students involved in traditional bullying to psychosomatic and behavior problems. The students filled out surveys that measured their involvement in bullying as well as their accounts of any health-related issues they had experienced. The teachers of the students participating in the study were asked to fill out a questionnaire about each student that measured emotional and behavior problems. The results of the study indicated that victims experienced considerably more behavioral and psychosomatic problems, as reported by teachers and students respectively. Two of the most common psychosomatic symptoms reported were feeling tired and experiencing sleep problems. The author clarified the significance of this finding in that these symptoms were highly associated with depression. This finding is consistent with the results of Seals and Young (2003) described above.

A detailed account of the number of students involved in traditional bullying, as well as the demographic variables of those students, is presented below along with the same information in regards to cyberbullying. This comparison was done in order to highlight the similarities and/or differences between the two forms of bullying.
Methodology Review

Traditional bullying and cyberbullying have commonly been measured through the use of self-report data. Similarly formatted questionnaires are often used by researchers in order to draw comparisons from one study to another. This format typically includes a demographic section and a bullying experiences section. Many surveys also provide students with a definition of bullying, in order to ensure that students fully understand the questions regarding bullying before responding (Carlyle & Steinman, 2007; Li, 2005; Nansel et al., 2001). While some researchers have developed their own definitions, others have chosen to use Olweus’s definition, as it is a commonly accepted and used definition of bullying (Beran & Li, 2005; Smith et al., 2008). Similarly, many researchers have developed their own questionnaires, for example Li (2006) and Raskauskas and Stoltz (2007), while others have used existing questionnaires, such as Gini (2008) and Carlyle and Steinman. The commonality between both new and existing questionnaires tends to be the use of forced-choice questions that require participants to select the number of times they have experienced a particular aspect of traditional bullying and/or cyberbullying from a Likert scale, typically ranging from never to very frequently. Fewer studies have employed the use of open-ended questions to attain qualitative information regarding student perceptions of bullying and victimization. Raskauskas and Stoltz is an example of a recent study that included an open-ended question measuring student beliefs as to why some adolescents choose to bully others through electronic means. This is an important area that future research on traditional bullying and cyberbullying should explore.

While the population of participants varies from one study to another, a common theme can be found in the age and grade of students typically targeted by studies on traditional bullying and cyberbullying. Smith et al. (2008) surveyed
students between the ages of 11 and 16 while Raskauskas and Stoltz (2007) included students between the ages of 13 and 18. Nansel et al. (2001) and Carlyle and Steinman (2007) measured the responses of students from sixth grade through high school. All of these studies encompassed the middle school and early high school grades, which is often considered a peak period in bullying experiences. For that reason, many studies have focused primarily on this population (Beran & Li, 2005; Li, 2005, 2006).

**Relationship Between Traditional and Cyberbullying**

The relationship between traditional bullying and cyberbullying is somewhat unclear. One study examining the relationship between traditional and cyberbullying in students between the ages of 11 and 26 found that students were significantly more involved in traditional bullying than cyberbullying (Smith et al., 2008). In fact, students reported experiencing traditional bullying almost twice as frequently as cyberbullying. For traditional bullying, 14.1% indicated it had occurred “often” and 31.5% reported that it had occurred “once or twice.” For cyberbullying, only 6.6% reported that it had occurred “often” and 15.6% indicated it had happened “once or twice.”

Raskauskas and Stoltz (2007) also conducted a study examining the relationship between traditional bullying and cyberbullying. The participants were adolescents between the ages of 13 and 18 years old. Based on a correlation matrix between the specific types of traditional and electronic bullying and victimization, the researchers found that victims of Internet bullying were likely to be involved as bullies at school. More specifically, they found that participants who reported Internet victimization also tended to report physical, teasing, rumor and exclusion bullying. Text-message victimization was also related to exclusion
and teasing bullying. Clearly, there appears to be a relationship between traditional bullying and cyberbullying.

One study found that students between the ages of 10 and 17 years old who were harassed by their peers were five times more likely to use the Internet to harass someone else than those who were not harassed (Wolak, Mitchell, & Finkelhor, 2007). Li (2005) found a perplexing interaction between the two dimensions of bullying where nearly half of the bully victims were also bullies in the traditional setting. Roughly 30% of the students who participated in the study reported being cyber victims and of those 30%, about 17% were also cyberbullies. Eighty-five percent of face-to-face bullies reported being victims and roughly 30% were cyberbullies and cyber victims. These findings indicate that students involved in bullying in one dimension are likely to engage in the bullying process in the other dimension as well. One theory is that victims of traditional bullying may turn to cyberbullying as a way to retaliate, knowing that their actions may remain anonymous (Brown et al., 2006; Shariff & Gouin, 2005). In fact, Kowalski and Limber (2007) found that nearly half of the students who had been cyberbullied reported that they did not know the identity of the perpetrator.

Mason (2008) also examined the use of electronic devices in bullying. The author in this study presented three factors that may contribute to cyberbullying. The first factor is the disinhibition effect, which is caused by the anonymity of cyberspace. Students may have less fear of getting caught or being punished for their online actions. The second factor is the transition students make from a private to a social self online. While an individual may follow certain rules on a personal level, they may feel less accountable for their actions when they identify with a social self. The third factor is the lack of adult interaction. Many parents and adults do not know how to access some of the websites their children or
students visit. They are also often unaware of the activities that take place in cyberspace. Because of this, students experience few restrictions on what they can say and do in cyberspace.

Characteristics of Bullies and Victims

The Number of Students Involved

The existing information on bullies and victims of both traditional and electronic forms of harassment is currently rather vague. Roughly 30% of students report having bullied a peer in the traditional form while 15 to 17% have bullied using electronic devices (Li, 2005, 2006). Between 12 and 54% of students have been victims of traditional bullying (Holt, Finkelhor, & Kaufman Kantor, 2007; Houbre, Tarquinio, Thuillier, & Hergott, 2006; Li, 2005, 2006) and between 25 and 49% of students have been cyberbully victims (Li, 2005, 2006; Raskauskas & Stoltz, 2007). From these numbers it is clear that researchers have not found a consistent pattern of victimization. However, the results of these studies generally suggest that more students report involvement in traditional bullying than cyberbullying. This is a remarkable finding, considering the numerous benefits considered associated with cyberbullying, including anonymity and retaliation. Perhaps a lack of access to the electronic devices necessary for cyberbullying is related to the lower participation in this form of bullying. Future research should consider the possible factors that would increase or decrease the likelihood of participation in a particular form of bullying.

The Characteristics of Students Involved

Ethnic variables. While it is unclear exactly how many students are involved in the bullying process, it is only slightly more apparent which children
are most likely to be involved as either bullies or victims. Nansel et al. (2001) examined the demographic variables of students involved in traditional bullying. Without offering an explanation for this result, the authors found that Latino students were most likely to report moderate to high levels of involvement in bullying, whereas African American students reported significantly less involvement in bullying. Carlyle and Steinman (2007) surveyed nearly 80,000 students in 6th through 12th grade from a metropolitan area in order to determine whether there were any significant relationships between bullying involvement and ethnicity. They found that African American and Native American students reported the highest rates of bullying, whereas Asian Americans reported the least involvement in bullying. Interestingly, the authors found that among Caucasian, Latino, and Asian American populations, males were almost twice as likely as females to be a bully. This sex difference did not occur in Native American and African American populations.

Sawyer, Bradshaw, and O’Brennan (2008) examined the way in which children from various ethnic backgrounds report whether or not they have been bullied. A large number of students from grades 4 through 12 were surveyed in the study. The survey included two main types of reporting victimization. The first was known as a definition-based measure of bullying and included one item that read, “How often have you been bullied during the last month?” The second was known as a behavior-based measure and included multiple items that assessed if the student had been hurt through hitting, slapping, emails, being ignored, etc. The results indicated that African American girls in middle school and high school, as well as African American and Asian American boys in middle school were significantly less likely than Caucasian students to report that they had been bullied using the definition-based measure. Overall, 20 to 30% of the students
reported being bullied using the definition-based measure, whereas 55 to 80% reported being bullied using the behavior-based measure. The authors of the study discussed whether cultural variables influence a student’s perception of bullying, thereby influencing the students likelihood to report victimization to an adult.

Considerably less information is available on the relationship of ethnicity to cyberbullying. One study examined the involvement of 177 seventh-grade students from an urban city and found that 60% of the cyber victims and 70% of the cyberbullies were Caucasian (Li, 2007).

**Gender variables.** Studies have found that males are significantly more likely than females to bully others in the traditional form and be the target of bullying (Nansel et al., 2001; Seals & Young, 2003). Generally, girls are less involved in the bullying process than boys and when they are involved, they are more likely to be victims than bullies (Houbre et al., 2006; Veenstra et al., 2005). Although this trend is relatively stable in the literature on cyberbullying, the gap between the two genders decreases as girls are only slightly less likely to be cyberbullies and boys are almost equally as often victims of cyberbullying (Li, 2005, 2006). It appears that the differences between the two genders have become less apparent as the use of technological devices has increased.

**Devices Used to Cyberbully**

Cyberbullying may occur in a wide range of situations using a number of different electronic devices. Kowalski and Limber (2007) found that students reported using instant messaging, chat rooms, and email more than other modes of electronic communication. In general, the most common devices used by cyberbullies are cell phones (i.e., text messaging and video phones) and computers (i.e., chat rooms, emails, and websites) (Beran & Li, 2005; Li, 2005; Raskauskas
& Stoltz, 2007). Li (2005) found that 40% of students report being harassed through multiple sources. If a child does not own a cell phone or a computer, these devices can commonly be found at a student’s school or at a friend’s house. Almost 90% of cyber victims use computers at least once a week, and every cyberbully reported using a computer a minimum of four times a month (Li, 2007).

Physical and Emotional Characteristics of Bullies and Victims

Studies have repeatedly demonstrated that there are serious and negative characteristics associated with bullying. One study found that of the participants aged 9 to 12, the victims of traditional bullying tended to have lower self-perceptions of their social competence, physical appearance, and global self-worth than the bullies and uninvolved students (Houbre et al., 2006). Beran and Li (2005) found that victims of cyberbullying in grades 7 to 9 often blamed themselves and reported that the experience made them feel angry, sad, anxious, and embarrassed. A small number of victims experienced poor concentration in school, low achievement, and absenteeism. Some victims have developed serious mental health issues requiring psychiatric help (Brown et al., 2006; Li, 2006), while others have committed suicide as a result of cyberbullying (Brown et al., 2006; Shariff & Gouin, 2005).

Some have argued that any child involved in bullying is a victim. Although there is evidence to support such a position, for the purpose of this paper bullies will be distinguished from victims of bullying. In keeping with previous literature in this field, students who have experiences in both bullying and victimization will be considered bully/victims (Houbre et al., 2006; Veenstra et al., 2005). Numerous studies have found that bully/victims are likely to experience more
social, emotional, and physical problems than victims. Compared to bullies and victims, bully/victims tend to have even lower perceptions of self-control, social competence, and global self-worth. Bully/victims also reported considerably more psychosomatic symptoms (e.g., neurovegetative disorders, digestive disorders, somatic pain) and behavioral problems (Houbre et al., 2006). Bully/victims reportedly have higher levels of aggressiveness, are highly disliked, and experience the most social isolation (Veenstra et al., 2005). These findings indicate that bully/victims experience substantially more physical and emotional problems than bullies or victims.

**Intervention and Prevention of Bullying**

Due to the serious and negative outcomes associated with children involved in bullying, it is important to investigate programs that may reduce bullying on school campuses. Perhaps the most widely known researcher in the area of bullying prevention and intervention is Dan Olweus of Norway. Creator of the largely successful Olweus Bullying Prevention Program (OBPP), Olweus has had an overwhelming impact in the field of bullying prevention. In an article summarizing the characteristics and effects of the OBPP, Olweus (1995) summarized the core steps in his program. The first requirement is for adults to be aware of bullying and committed to involving themselves in the program. Numerous measures are taken at the school level, including questionnaires for the students, a school conference day, increased supervision of students during break times, and meetings between parents, school teachers, and administrators. Within the classrooms, rules against bullying must be established and regular meetings with students should take place. In regards to individual students involved in bullying, adults on campus must be prepared to have serious talks with bullies,
victims, and their parents. Olweus (2005) stressed the importance for this program to be implemented with integrity. The OBPP is a detailed program for schools to follow that has been shown to reduce bullying-related problems by over 50% and considerably decrease the amount of new victims, proving to be both an effective intervention and preventative measure (Olweus, 1995).

Research has shown that bullying prevention programs that focus on increasing positive behaviors (e.g., social skills training) and also educate teachers and administrators on how to talk with students about bullying and victimization can be effective (Beaty & Alexeyev, 2008; Evers, Prochaska, Van Marter, Johnson, & Prochaska, 2007; Jenson & Dieterich, 2007). These programs help by communicating with bullies on more appropriate ways to get attention and make friends, while also teaching victims ways to avoid bullies. In addition to more individual and classroom lessons on bullying, the programs also promote a school-wide anti-bullying climate. Although these programs focus heavily on implementing changes in all areas of the school environment (i.e., school-wide, classroom, and individual levels), research shows that group counseling methods can save time and money for schools while still reducing aggression in school (Horne, Stoddard, & Bell, 2007).

While most of the available research has primarily focused on traditional face-to-face bullying, many of these programs could potentially be effective in reducing cyberbullying as long as electronic bullying is discussed with students and included in every aspect of the prevention programs. One suggestion to help educate students about the dangers of cyberbullying was made by Brown et al. (2006). They recommended that teachers and administrators use the same technology (i.e., computers) that students use to inform them about what online behaviors are and are not appropriate. They proposed that the typical methods
educators use to inform students about the dangers of bullying may appear old-fashioned. Perhaps using the same websites and languages that students use would reach them in a better way.

Cyberbullying Effects on Schools

Since few studies have focused on how schools can respond to cyberbullying, it is essential to consider how much control schools have over the events that take place in cyberspace. The predicament schools face comes from the fact that a large amount of the actual bullying that occurs is off campus. Although this creates some difficulty in establishing effective school policy to combat cyberbullying, it is apparent that such a policy is needed. Brown et al. (2006) explained the challenge of creating effective and legal policy by stating, “It has been said that the public policy issues for cyberbullying in particular involve tensions between the values of freedom of speech, the best interests of the child, and parental and school protective authority over the child” (p. 3). There is debate over how much power the school should have over its students’ activities in and out of school. It is often difficult for school administrators to determine at what point school policies are protecting students and at what point are they infringing on their rights.

Legal Rulings

Current laws and legal rulings have given room for school policy makers to maneuver. There are three important Supreme Court rulings that address the first amendment’s freedom of speech provision for students: Tinker v. Des Moines Independent Community School District (1969), Bethel School District No. 403 v. Fraser (1986), and Hazelwood School District v. Kuhlmeier (1988). The Tinker v. Des Moines (1969) case surrounded a group of students who wore black armbands
to school in order to protest the Vietnam War. The students were suspended from school until they decided to remove the armbands. After the students sought an injunction to stop the school from suspending them, the courts ruled that the school could not infringe on the students’ rights to express themselves in a passive manner that did not disrupt the educational environment. This set the precedent that if a school could show that a student’s action were negatively impacting the school environment, the school would have the right to respond. In the case of *Bethel v. Fraser* (1986), a student made a speech at a school assembly that was considered lewd and obscene by school officials. When the student was suspended for 3 days as a result of his speech, the student sued the school. The court ruled that the school must be able to limit student speech that undermines the school’s values. The Fraser ruling was extended by the courts in the case of *Hazelwood v. Kuhlmeier* (1988). In this case, students intended to publish articles in the school newspaper that the principal deemed inappropriate. After the principal demanded that the pages be removed from the paper, the students sued. The courts determined that because the paper was a part of the school environment, the students could not claim their first amendment right. Schools have a right to ensure that the content of school-sponsored items and events match with the values and beliefs of the school.

These rulings apply to cyberbullying in a number of ways. Schools can use the information from these cases to determine if they have a right to take action against student speech depending on whether it has an effect on the school environment. These rulings also give the schools the right to monitor the use of school property for activities that are not in line with the school’s educational mission. This implies that if emails or text messages are sent from the school campus or if students use school computers to cyberbully, the school should be
able to treat electronic devices as if they were as tangible as a locker. Shariff and Gouin (2005) describe rulings that have made the effects of bullying as tangible as a physical injury. The courts have supported victims of “bullyside” (i.e., suicide as a result of bullying) and plaintiffs who have experienced extreme psychological harm. Schools can rely on the knowledge that cyberbullying “materially and substantially disrupts learning” (Shariff, 2005, p. 465).

While the rulings discussed above consider the issue of first amendment rights for students in general, a number of court cases have recently dealt specifically with first amendment rights in relation to electronic media. Two cases, J. S. v. Bethlehem Area School District (2000) and Layshock v. Hermitage School District (2006), were able to show that schools have the right to take action against off-campus student activities involving the internet that negatively affected the school climate. The case of J. S. v. Bethlehem (2000) involved a student who was expelled for creating a web site devoted to discussing why a teacher at the school should die. The courts found that because students discussed the web site at school and school-related activities and because the teacher was unable to finish out the year, the school should be allowed to take action. In Layshock v. Hermitage (2006), a student created a fake MySpace page for his principal. So many students began visiting the web site on campus that the school was forced to shut down their entire computer system for the school week. The school responded by placing the student in an alternative education program. Although the student sued, the courts ruled in the school’s favor due to the extensive impact on the students and the property of the school.

Two other cases, Emmett v. Kent School District No. 415 (2000) and Killion v. Franklin Regional School District (2001), involved students who created derogatory web pages about their schools and were suspended or expelled as a
result. In both cases, the courts ruled that the schools did not show adequate evidence that the web pages created off campus caused a disruption at school. For this reason, the courts sided with the students. These rulings show that it is important when dealing with cyberbullying issues to differentiate between electronic activities or speech that is deemed inappropriate and those that actually affect student learning or emotional well-being, school atmosphere, or the productivity of school administrators and teachers. While these cases do not deal specifically with cyberbullying, they do highlight the ability the school has to regulate information that transpires electronically.

School Policy

Taking the legal rulings into consideration, schools must develop school policies to deal with cyberbullying. It is important that students be held just as responsible for harassing peers via technological means at school as they would if they had verbally or physically harassed a peer. Future research should determine where cyberbullying occurs and give policy makers better insight into the methods students use to cyberbully others. This information would allow school administrators to direct policies at the most widespread forms of cyberbullying.

Although the complexity of establishing school policy on cyberbullying is certainly one of the issues school administrators face in dealing with this problem, there are other issues that compound the situation. Li (2005) found that only 34% of students told an adult when they were being cyberbullied. One-third of students did not believe that the adults at their schools would try to stop cyberbullies if they were informed (Li, 2006). Many would not inform an adult if they were being cyberbullied and only 30% would inform an adult if someone they knew was being bullied. Agatson, Kowalski, and Limber (2007) conducted a study
examining student perspectives on cyberbullying. The students who participated explained that many may not report cyberbullying through text messages because phones are not allowed on school campuses. The participants also reported that students may be unlikely to inform their parents about online bullying, fearing the loss of computer privileges if parents were made aware of cyberbullying activities. It is clear that a great deal of students do not notify teachers, school administrators, or parents when they are being cyberbullied, making the situation even more intangible and difficult to control. More research is needed to determine the reason why students do not report cyberbullying. It would be extremely important to know whether there are changes that could be made inside the classroom or school-wide that would increase the likelihood that students would report cyberbullying to an adult.

Conclusion

Existing Research

While face-to-face bullying has been a challenge for schools to successfully deal with, cyberbullying has created an even more difficult task for school policy makers. In order to establish a policy that is legally founded and effective in reducing the amount of children involved in bullying, it is essential to review the literature on aggression, traditional bullying, cyberbullying, and their effects on students.

It is clear that relationally aggressive acts can have as serious of an impact on students as overtly aggressive acts. Relational aggression can be seen in boys as well as girls, and can occur in children as young as 3 years old (Crick et al., 1997; Rose et al., 2004). Many of the teachers responsible for protecting victims of harassment and punishing their harassers do not believe that relationally
aggressive acts are as damaging as physical or verbal attacks and in turn, do not respond as quickly or as forcefully in these situations (Bauman & Del Rio, 2006). In order to implement changes in school policy, teachers must be informed of the dangers associated with bullying, regardless of whether the harassment was physical.

Many children appear to be involved in the bullying process. The victims of bullying report experiencing a number of emotional problems and while bullies appear to suffer the least amount of negative consequences, bully/victims have an exceptionally higher incidence of physical and psychological problems than victims of bullying (Houbre et al., 2006). School policy needs to be targeted at reducing bullying altogether, rather than simply protecting victims from their harassers. In order to reduce the occurrence of traditional face-to-face bullying and cyberbullying, school teachers and administrators must be equipped with a school policy that enables them to discipline bullies from either domain and encourages students to inform adults when they or someone they know is being bullied.

One of the difficulties in instituting a school policy on cyberbullying comes from the fact that the actual bullying act often occurs off the school premises. Although it is not clear whether these rulings apply to every school nationwide, some courts have determined that if cyberbullying affects the mental status of a child, which in turn negatively affects their ability to concentrate and complete work at school, the education system must have some way to deal with the perpetrators (Shariff, 2005). It appears even easier to deal with cyberbullying when the harassing text message or email was sent from school grounds. In cases similar to these, the computer or cell phone could potentially be treated in the same respect as other items at school such as lockers, notebooks, and backpacks, which are legally allowed to be searched. Future studies should examine the usual
locations and devices students use to cyberbully one another to ensure that school policy includes information on the most common situations.

**The Current Study**

Current literature has not examined many of the cultural and socioeconomic differences associated with cyberbullying. Although some studies have indicated variations in the experiences of youths from differing cultural backgrounds, more information is needed from a wide variety of students from different locations, socioeconomic strata, and ethnicities. This study examines the gender and ethnicity of each participant in order to further the current knowledge of individual characteristics of individuals involved in cyberbullying. Due to the fact that cyberbullying utilizes technological devices that may be more readily accessible in certain populations, this study also examines whether there are differences in the reports of cyberbullying by students with varying access to electronic devices. While past research has investigated the types of electronic devices used by students to engage in cyberbullying, there is currently a lack of information regarding the relationship between access to such devices and involvement in traditional bullying and cyberbullying. Because many schools have the ability to create certain policies that pertain to their school in particular, it would be especially fitting for policy makers to take into account the common characteristics of children involved in the bullying process and compare that information with the characteristics of their school in order to set up appropriate guidelines. For example, if findings consistently suggest that owning a cell phone significantly increases a student’s chances of engaging in cyberbullying, schools may insist that cell phones be left at home (as opposed to simply shut off or turned on silent). By understanding the factors related to cyberbullying, schools are
better equipped to prevent cyberbullying and victimization from occurring on campus.

Previous studies have primarily relied on forced-choice responses for information on bullying. In order to determine common reasons why students do not report cyberbullying to an adult, it may be beneficial for future studies to add an open-ended section to their questionnaire asking students why they might not inform someone if they or someone they knew were being bullied. The results of these responses may enlighten educators on better ways to educate their students about cyberbullying and how to arrange their classroom in a way that students feel comfortable reporting harassment to their teachers.

The current study explored student perceptions of cyberbullying as well as student involvement in traditional and electronic forms of bullying. While we currently have an understanding of the number of students involved in traditional bullying and the methods they use to bully one another, we do not have as clear an understanding of these issues in relation to cyberbullying. There is also a lack of information on the number of students involved in both traditional bullying and cyberbullying, as well as the characteristics of students likely to be involved. For example, only one study focused on the relationship between ethnicity and cyberbullying, whereas numerous studies have examined the relationship between ethnicity and traditional bullying. While past research has investigated the types of electronic devices used by students to cyberbully, there has not been an investigation into the relationship between access to such devices and cyberbullying. Although it is important to understand the types of devices used to cyberbully, it is also important to determine whether increased access to such devices enhances an individual’s chances of becoming a cyberbully or victim. As
this has not yet been examined in previous literature, the present study will examine the relationship between access to electronic devices and bullying.

The current study examined the number of students involved in both forms of bullying. This investigation explored whether certain students are more likely to be involved in cyberbullying than others. Is there a relationship between gender and involvement in cyberbullying? Is there a relationship between ethnic groups involved in cyberbullying and traditional bullying? Is there a relationship between electronic devices and cyberbullying? This exploratory study presents new information on the subject of cyberbullying.
Chapter 3

METHOD

Participants

Students from four middle schools in Central California were selected to participate in the study. The middle schools were chosen based on the school community in order to collect questionnaires from students in diverse areas. In order to better understand the socioeconomic background of the participating schools, the percentage of students receiving free or reduced lunch was reviewed for each school. According to the California Department of Education, 36.8% of the students enrolled at school “A” are eligible for free/reduced lunch. Of the students enrolled at school “B,” 85.9% are eligible. School “C” has a total of 87.3% of eligible students while school “D” has 80.1%.

A total of 485 students were invited to participate. With an overall response rate of approximately 35%, a total of 169 students participated in the study. The demographic information of the participants in this study is provided in Table 1. Of those participants who completed the demographic section of the questionnaire, 56 were male and 108 were female. All participants were enrolled in seventh or eighth grade with ages ranging from 11 to 15 years. A large portion of the participants identified themselves as Hispanic (60%) or Caucasian (21%). The remaining participated identified as Other, Asian or Pacific Islander, African American and American Indian/Alaskan Native. Of those who identified as “Other,” many chose to acknowledge more than one ethnic group. Access to electronic devices was also surveyed; participants reported having most
Table 1

Demographic Information of Participants (N = 169)

<table>
<thead>
<tr>
<th>Demographic</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>56</td>
<td>33.1</td>
</tr>
<tr>
<td>Female</td>
<td>108</td>
<td>63.9</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>3.0</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seventh Grade</td>
<td>64</td>
<td>37.0</td>
</tr>
<tr>
<td>Eighth Grade</td>
<td>68</td>
<td>40.2</td>
</tr>
<tr>
<td>Missing</td>
<td>37</td>
<td>22</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>Caucasian</td>
<td>35</td>
<td>20.7</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>9</td>
<td>5.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>101</td>
<td>59.8</td>
</tr>
<tr>
<td>American Indian/Alaskan Native</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
<td>10.1</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Electronic Devices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer with email</td>
<td>133</td>
<td>78.7</td>
</tr>
<tr>
<td>Webpage building software</td>
<td>52</td>
<td>30.8</td>
</tr>
<tr>
<td>Cell phones with text-message</td>
<td>112</td>
<td>66.3</td>
</tr>
<tr>
<td>capabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cell phone with picture taking</td>
<td>108</td>
<td>63.9</td>
</tr>
<tr>
<td>capabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Camera</td>
<td>109</td>
<td>63.5</td>
</tr>
</tbody>
</table>
access to a computer with email (79%) and the least access to webpage building software (31%).

**Materials**

A questionnaire developed by Raskauskas and Stoltz (2007) was used in the current study (see Appendix A). The questionnaire was adapted from previous research in order to measure student involvement in traditional and electronic bullying. The reliability and validity of this questionnaire has not yet been addressed by the researchers who created it. One item was added to the existing questionnaire in order to better determine the relationship between gender and cyberbullying. This item was added to questions 5, 9, and 13 and asked the participants to indicate the gender of the person who bullied them, if they knew who the person was. The first portion of the questionnaire measures demographic information such as age, grade, gender, and ethnicity. The second section includes items measuring experiences in traditional bullying, as well as bullying through text-messaging, the Internet, and picture phones. The answers to these questions vary by type. While some are simple yes or no questions, others require the student to select a range of times that they have experienced a type of bullying (e.g., 0, 1-2, 3-4, etc.). The last portion of the questionnaire measures the student’s own involvement in the various forms of bullying by describing the possible actions of some children and asking them to rate how much this student is like them. For example, one item states, “Some kids make websites that say mean things about other people.” The four possible responses to this question are “Not at all like me,” “A little like me,” “Kind of like me,” and “A lot like me.”

In order to make comparisons between studies, the current study followed the same procedures as Raskauskas and Stoltz (2007) for differentiating student
responses. If their response showed that they had been bullied in the traditional form more than three times in the past 30 days, according to question 2, they were classified as a victim of traditional bullying. A student was classified as a traditional bully if he or she marked any response other than “Not at all like me” for items 16 through 19. Students were classified as a cyber victim based on their responses to the yes or no questions (i.e., questions 3, 7, and 11) regarding involvement in electronic bullying. A student was classified as a cyberbully if he or she marked any response other than “Not at all like me” for items 20 and 21.

Due to the exploratory nature of this study and others like it, two open-ended questions were included in the questionnaire. The first open-ended question asked students to describe how they feel being a victim of cyberbullying has affected them. The second states, “Why do you think that some kids bully others using text-messages and the Internet?” These questions allow students to provide the researchers with more insight into why some students may bully others using electronic means and how this type of bullying affects students. The open-ended questions were analyzed by grouping similar responses together in order to discover any themes. If it is possible to learn how a majority of victims feel they have been affected by cyberbullying or why a majority of bullies say they use electronic means to bully others it could help direct future research and give schools more knowledge about the factors associated with cyberbullying.

Procedure

Before contacting individual schools, the study was reviewed by California State University, Fresno’s Institutional Review Board (IRB). With approval from the IRB, four different school sites were contacted to participate in this study. With approval from the districts, school principals were asked for permission for
students within their schools to have the opportunity to participate in the study. Once permission was obtained, students were approached within their classrooms. A script (see Appendix B) was read by the researcher in order to introduce the study to all participants. The script briefly explained the topic of the questionnaire and students were asked if they were interested in participating in the study. Those who expressed an interest in participating were given an informed consent form for their parents to read through explaining the purpose of the study, risks and benefits of the study, as well as contact information if parents or students had further questions or concerns about the study (see Appendix C). The informed consent form was also translated into Spanish in order to meet the language needs of the parents of the study’s participants (see Appendix D). The researcher returned to the classrooms 2 to 4 days later to administer the questionnaire to those students whose parents have given their consent for their son or daughter to participate in the study. The students were then given a minor consent form (see Appendix E) to ensure that the students were willing participants. The questionnaire took approximately 10 to 15 minutes to complete.

While the questionnaire does not ask the participants for identifying information, it was possible that some students may have felt compelled to contact the researcher regarding their own involvement in bullying as the topic is introduced. It was determined that if a participant identified him or herself as a victim of bullying during the research process, the school psychologist would be notified in order for the student to receive appropriate services. However, no student came forward with such information throughout the data collection process.
Chapter 4

RESULTS

Student involvement in traditional bullying has been widely studied in past research. With the upsurge of technological devices found in schools, cyberbullying has become a new area of interest for bullying researchers. The present study examined student involvement in both forms of bullying. Middle school students completed a questionnaire measuring demographic information, traditional bullying experiences and cyberbullying experiences. Their responses to individual items are displayed in Tables 2 through 5. The following section details the number of students involved and the relationship between gender, ethnicity, and access to electronic devices to both forms of bullying.

Table 2

<table>
<thead>
<tr>
<th>Victimization</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>52 (30.8%)</td>
<td>116 (68.6%)</td>
</tr>
<tr>
<td>Text-MESSAGE</td>
<td>13 (7.7%)</td>
<td>156 (92.3%)</td>
</tr>
<tr>
<td>Internet</td>
<td>7 (4.1%)</td>
<td>160 (94.7%)</td>
</tr>
<tr>
<td>Picture Phone</td>
<td>13 (7.7%)</td>
<td>156 (92.3%)</td>
</tr>
</tbody>
</table>

Table 3

<table>
<thead>
<tr>
<th>Bullies</th>
<th>Not at all like me</th>
<th>A little like me</th>
<th>Kind of like me</th>
<th>A lot like me</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>115 (68%)</td>
<td>39 (23.1%)</td>
<td>8 (4.7%)</td>
<td>7 (4.1%)</td>
</tr>
<tr>
<td>Teasing</td>
<td>97 (57.4%)</td>
<td>50 (29.6%)</td>
<td>16 (9.5%)</td>
<td>6 (3.5%)</td>
</tr>
<tr>
<td>Rumors</td>
<td>132 (78.1%)</td>
<td>20 (11.8%)</td>
<td>12 (7.1%)</td>
<td>5 (3%)</td>
</tr>
<tr>
<td>Exclusion</td>
<td>131 (77.5%)</td>
<td>21 (12.4%)</td>
<td>11 (6.5%)</td>
<td>5 (3%)</td>
</tr>
<tr>
<td>Text-MESSAGE</td>
<td>132 (78.1%)</td>
<td>28 (16.6%)</td>
<td>7 (4.1%)</td>
<td>2 (1.2%)</td>
</tr>
<tr>
<td>Internet</td>
<td>157 (92.9%)</td>
<td>8 (4.7%)</td>
<td>3 (1.8%)</td>
<td>1 (0.6%)</td>
</tr>
</tbody>
</table>
Table 4

Frequency of Participant Responses to Victimization Type Items (N = 169)

<table>
<thead>
<tr>
<th>Type of Victimization</th>
<th>Not at all</th>
<th>1-2 Times</th>
<th>3-4 Times</th>
<th>Once a Week</th>
<th>Several Times a Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>114 (67.5%)</td>
<td>39 (23.1%)</td>
<td>4 (2.4%)</td>
<td>3 (1.8%)</td>
<td>9 (5.3%)</td>
</tr>
<tr>
<td>Teasing</td>
<td>95 (56.2%)</td>
<td>53 (31.4%)</td>
<td>9 (5.3%)</td>
<td>5 (3%)</td>
<td>7 (4.1%)</td>
</tr>
<tr>
<td>Rumors</td>
<td>106 (62.7%)</td>
<td>42 (24.9%)</td>
<td>14 (8.3%)</td>
<td>4 (2.4%)</td>
<td>3 (1.8%)</td>
</tr>
<tr>
<td>Exclusion</td>
<td>129 (76.3%)</td>
<td>28 (16.6%)</td>
<td>9 (5.3%)</td>
<td>0 (0%)</td>
<td>3 (1.8%)</td>
</tr>
</tbody>
</table>

Table 5

Frequency of Participant Responses to Cyber Victimization Occurrence Items (N = 169)

<table>
<thead>
<tr>
<th>Cyber Victimization</th>
<th>0</th>
<th>1-2 Times</th>
<th>3-5 Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text-Message</td>
<td>154 (91.1%)</td>
<td>11 (6.5%)</td>
<td>4 (2.4%)</td>
</tr>
<tr>
<td>Internet</td>
<td>159 (94.1%)</td>
<td>9 (5.3%)</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Picture Phone</td>
<td>154 (91.1%)</td>
<td>13 (7.7%)</td>
<td>2 (1.2%)</td>
</tr>
</tbody>
</table>

Descriptive Statistics

The number of students who reported involvement in traditional and cyberbullying is reported in Table 6. Roughly 25.4% of the sample reported being a victim of some form of traditional bullying, whereas 19.5% reported victimization of cyberbullying. Of the various forms of cyberbullying, text-message (7.7%) and picture-phone (7.7%) victimization were more common than Internet (4.1%) victimization. Sixty% of students reported engaging in behaviors associated with traditional bullying and 23.7% reportedly engaged in cyberbullying. Although not statistically significant, slightly more individuals identified themselves as cyberbullies (n = 40) than cyber-victims (n = 33). Likewise, 101 individuals identified themselves as traditional bullies, while only 43 indicated that they were traditional victims.
### Table 6

Prevalence of Traditional and Cyberbullying and Victimization (N = 169)

<table>
<thead>
<tr>
<th>Form of Bullying</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Victims</td>
<td>43</td>
<td>25.4</td>
</tr>
<tr>
<td>Physical Victims</td>
<td>16</td>
<td>9.5</td>
</tr>
<tr>
<td>Teasing Victims</td>
<td>21</td>
<td>12.4</td>
</tr>
<tr>
<td>Rumors Victims</td>
<td>21</td>
<td>12.5</td>
</tr>
<tr>
<td>Exclusion Victims</td>
<td>12</td>
<td>7.1</td>
</tr>
<tr>
<td>Cyber Victims</td>
<td>33</td>
<td>19.5</td>
</tr>
<tr>
<td>Text-Message Victims</td>
<td>13</td>
<td>7.7</td>
</tr>
<tr>
<td>Internet Victims</td>
<td>7</td>
<td>4.1</td>
</tr>
<tr>
<td>Picture Phone Victims</td>
<td>13</td>
<td>7.7</td>
</tr>
<tr>
<td>Traditional Bullies</td>
<td>101</td>
<td>60</td>
</tr>
<tr>
<td>Physical Bullies</td>
<td>54</td>
<td>31.9</td>
</tr>
<tr>
<td>Teasing Bullies</td>
<td>72</td>
<td>42.7</td>
</tr>
<tr>
<td>Rumor Bullies</td>
<td>37</td>
<td>21.9</td>
</tr>
<tr>
<td>Exclusion Bullies</td>
<td>37</td>
<td>21.9</td>
</tr>
<tr>
<td>Cyberbullies</td>
<td>40</td>
<td>23.7</td>
</tr>
<tr>
<td>Text-Message Bullies</td>
<td>37</td>
<td>21.9</td>
</tr>
<tr>
<td>Internet Bullies</td>
<td>12</td>
<td>7.1</td>
</tr>
</tbody>
</table>

In order to determine whether the number of students involved in the various forms of bullying was significantly greater than that expected by chance, a series of chi-square goodness of fit analyses were conducted. The results of these analyses suggest that for all forms of bullying, reported involvement was significantly greater than zero. The number of students (n = 43) who reported traditional victimization was significantly greater than zero, $\chi^2 (1, N = 169) = 1019.87, p = .00$. Similarly, the 33 reported victims of cyberbullying were significantly greater than zero, $\chi^2 (1, N = 169) = 585.93, p = .00$. A total of 101 students reported engaging in behaviors associated with traditional bullying, leading the number of observed traditional bullies to be significantly greater than zero, $\chi^2 (1, N = 169) = 5894.73, p = .00$. Forty students reported cyberbullying
behaviors, which was also found to be significantly greater than zero, \( \chi^2 (1, N = 169) = 877.21, p = .00 \). Overall, involvement in traditional bullying and cyberbullying occurred at rates significantly greater than zero, indicating that students participate in the bullying process significantly more than expected by chance.

**Relationship Between Traditional Bullying and Cyberbullying**

To measure the relationship between the various forms of traditional bullying and cyberbullying, a series of chi-square tests of independence were conducted. Table 7 displays the relationships between traditional and cyberbullies and victims. There was a significant relationship between traditional bullying and cyberbullying, \( \chi^2 (1, N = 169) = 6.86, p = .01 \), Cramér's \( V = .20 \), with more traditional bullies reporting cyberbullying (30.7%) than expected. There was also a significant relationship between traditional bullying and being a victim of cyberbullying, \( \chi^2 (1, N = 169) = 4.36, p < .05 \), Cramér's \( V = .16 \). Of the individuals identified as a victim of cyberbullying, 75.8% also reported bullying others in the traditional form. In addition, a significant relationship existed between cyberbullying and being a victim of traditional bullying, \( \chi^2 (1, N = 169) = 4.02, p < .05 \), Cramér's \( V = .15 \), with 34.9% of participants reporting traditional victimization also reporting involvement in cyberbullying. Finally, there was a significant relationship between traditional and cyber victimization, \( \chi^2 (1, N = 169) = 14.69, p = .00 \), Cramér's \( V = .30 \). Of those identified as victims of traditional bullying, 39.5% also reported being a victim of cyberbullying. Overall, these results indicate that students involved in one form of bullying are likely to be involved in another form as well.
Table 7
Chi-Square Test of Independence Results (N = 169)

<table>
<thead>
<tr>
<th>Form of Bullying</th>
<th>Traditional Bullies</th>
<th>Cyberbullies</th>
<th>Traditional Victims</th>
<th>Cyber Victims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Bullies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyberbullies</td>
<td>6.86**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional Victims</td>
<td>19.63**</td>
<td>4.02*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyber Victims</td>
<td>4.36*</td>
<td>17.60**</td>
<td>14.69**</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05  **p < .01

To further analyze the relationship between traditional bullying and cyberbullying, a correlation matrix was completed to examine the individual relationship between specific items of both forms of bullying (see Table 8). All forms of traditional victimization were significantly related to one another at p < .01, including physical, teasing, rumors, and exclusion. Conversely, no form of cyberbullying was significantly related to another, implying that students victimized through one form of cyberbullying (e.g., text messages) were not likely to be victimized by another (e.g., Internet) as well. In addition, the only forms of cyber-victimization and traditional victimization related at p < .01 were picture-phone and rumors. For items concerning bullying, all forms of traditional bullying and cyberbullying were significantly related to each other at p < .01.

Relationship Between Gender and Bullying

The current study proposed the question of whether there was a relationship between gender and involvement in cyberbullying. In order to answer this question, chi-square tests of independence were conducted. The results of these analyses indicated that gender was not significantly related to being a victim of cyberbullying, \( \chi^2 (1, N = 164) = 2.27, p > .05 \), Cramér's V = .19. Similarly, gender was not related to cyberbullying others, \( \chi^2 (1, N = 164) = .80, p > .05 \), Cramér's V
Table 8

Correlation Matrix (N = 169) of Participant Experiences as Traditional and Cyberbullies and Victims

<table>
<thead>
<tr>
<th>Question Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victimization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Physical</td>
<td>.47&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victims</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Teasing</td>
<td>.37&quot;</td>
<td>.43&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victims</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Rumors</td>
<td>.27&quot;</td>
<td>.33&quot;</td>
<td>.39&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victims</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Exclusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyber Victims</td>
<td>.194*</td>
<td>-0.39</td>
<td>.15</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Text-Message</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victims</td>
<td>-0.03</td>
<td>.04</td>
<td>.04</td>
<td>.10</td>
<td>-0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Internet</td>
<td>.172&quot;</td>
<td>.12</td>
<td>.25&quot;</td>
<td>.20&quot;</td>
<td>.08</td>
<td>-0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victims</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Picture Phone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyberbullies</td>
<td>.12</td>
<td>.10</td>
<td>.25&quot;</td>
<td>.13</td>
<td>.12</td>
<td>.28&quot;</td>
<td>.12</td>
<td>.29&quot;</td>
<td>.38&quot;</td>
<td>.34&quot;</td>
<td>.33&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Physical</td>
<td>.19&quot;</td>
<td>.21&quot;</td>
<td>.29&quot;</td>
<td>.03</td>
<td>.04</td>
<td>.12</td>
<td>.04</td>
<td>.52&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bullies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Teasing</td>
<td>.01</td>
<td>.03</td>
<td>.22&quot;</td>
<td>-0.06</td>
<td>.07</td>
<td>.25&quot;</td>
<td>-0.05</td>
<td>.40&quot;</td>
<td>.56&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bullies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Rumor</td>
<td>-0.08</td>
<td>.07</td>
<td>.05</td>
<td>.10</td>
<td>-0.08</td>
<td>.21&quot;</td>
<td>.08</td>
<td>.32&quot;</td>
<td>.47&quot;</td>
<td>.49&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bullies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Exclusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyberbullies</td>
<td>.12</td>
<td>.10</td>
<td>.25&quot;</td>
<td>.13</td>
<td>.12</td>
<td>.28&quot;</td>
<td>.12</td>
<td>.29&quot;</td>
<td>.38&quot;</td>
<td>.34&quot;</td>
<td>.33&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Text-Message</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bullies</td>
<td>.05</td>
<td>.07</td>
<td>.11</td>
<td>.14</td>
<td>-0.07</td>
<td>.28&quot;</td>
<td>.09</td>
<td>.28&quot;</td>
<td>.38&quot;</td>
<td>.48&quot;</td>
<td>.53&quot;</td>
<td>.42&quot;</td>
<td></td>
</tr>
<tr>
<td>13. Internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * Indicates items significant at \( p < .05 \). ** Indicates items significant at \( p < .01 \).

= .07. However, gender was found to be significantly related to being a victim of traditional bullying, \( \chi^2 (1, N = 164) = 4.53, p < .05 \), Cramér’s V = .17. Of the study’s participants, 31.5% of females reported being a victim of traditional bullying, whereas 16.1% of males reported such victimization. In contrast, gender was not related to involvement as a traditional bully, \( \chi^2 (1, N = 164) = .37, p > .05 \), Cramér’s V = .05.

In order to further explore the relationship between gender and traditional victimization, a chi-square test of independence was run for gender and each category (i.e., physical, teasing, rumors, and exclusion) of traditional victimization. The results indicated that gender was not related to physical victimization, \( \chi^2 (1, N = 164) = 0.66, p > .05 \), Cramér’s V = .06. Gender was also unrelated to teasing victimization, \( \chi^2 (1, N = 164) = 0.33, p > .05 \), Cramér’s V =
There was not a significant relationship between gender and rumor victimization, $\chi^2 (1, N = 164) = 2.44, p > .05$, Cramérs $V = .12$. Finally, there was not a significant relationship between gender and exclusion victimization, $\chi^2 (1, N = 164) = 1.76, p > .05$, Cramérs $V = .10$.

**Relationship Between Ethnicity and Bullying**

The relationship between ethnicity and involvement in cyberbullying was another area of interest in the present study. Due to the fact that over 80% of the participants belonged to two of the possible six ethnic groups listed on the questionnaire, the ethnicities were reclassified as Hispanic, Caucasian, and Other, with “Other” combining the original ethnic groups of African-American, Asian or Pacific Islander, American Indian/Alaskan Native and Other. A series of chi-square tests of independence were performed in order to determine whether a relationship existed between ethnicity and bullying. The results of these analyses indicated that there was a significant relationship between ethnicity and cyber victimization, $\chi^2 (2, N = 168) = 8.07, p < .05$, Cramérs $V = 0.22$. Of the individuals categorized as “Other,” 37.5% reported being a victim of cyberbullying, whereas 17.1% of Caucasians and 14.9% of Hispanics reported such victimization. However, ethnicity was not related to cyberbullying others, $\chi^2 (2, N = 168) = 3.84, p > .05$, Cramérs $V = .15$. In addition, ethnicity was not found to be significantly related to traditional victimization, $\chi^2 (2, N = 168) = 3.14, p > .05$, Cramérs $V = .14$ or traditional bullying, $\chi^2 (2, N = 168) = 0.63, p > .05$, Cramérs $V = .06$. 
Relationship Between Electronic Devices and Bullying

The final research question of the current study pertained to the relationship between access to various electronic devices and involvement in bullying. A series of independent-samples t tests were conducted to answer this question. For each analysis, involvement in traditional bullying or cyberbullying was the dependent variable while access to electronic devices was the independent variable. The results indicated that those who reported victimization of traditional bullying (M = 3.35, SD = 1.53) did not have significantly different access to electronic devices than those who were not victims of traditional bullying (M = 2.94, SD = 1.57), t(167) = -1.50, p > .05. However, victims of cyberbullying (M = 3.88, SD = 1.27) reported significantly greater access to electronic devices than those who were not victims of cyberbullying (M = 2.84, SD = 1.57), t(167) = -4.03, p = .01, d = 0.81. Students who engaged in traditional bullying (M = 2.95, SD = 1.62) did not have significantly different access to electronic devices than those who were not traditional bullies (M = 3.18, SD = 1.49), t(167) = 0.93, p > .05. Likewise, those involved in cyberbullying (M = 3.38, SD = 1.46) did not have significantly different access to electronic devices than students who did not engage in cyberbullying behavior (M = 2.94, SD = 1.59), t(167) = -1.55, p > .05. Overall, the results indicated that students who had high access to electronic devices were more likely to be a victim of cyberbullying, but were not at a higher risk of being a cyberbully or to be involved in traditional bullying.

The Effects and Purpose of Cyberbullying

Two open-ended questions were included the current study. The data were reviewed in order to identify themes in responses. The first of the two questions was dependent on having responded “yes” to the previous question that
cyberbullying had affected them in some way. A total of 14 students responded to this question. In their responses, students indicated that their experiences as victims of cyberbullying have altered their attitudes about themselves and others in some way since being bullied. For example, one student stated, “It made me feel low about myself and that I was nothing.” Others stated, “It makes me more careful about what I say to them” and “It made me a little less forgiving for people who keep messing with me.”

The second question asked students to identify why they think some kids bully using electronic devices. The majority of the sample (n = 165) responded to this question. Of the diverse responses to this question, the most common theme found included a statement indicating that cyberbullies were trying to avoid acting in person or face to face. One student stated, “I think it is easier to let out your feelings when you are not face to face with that person, and it is easy to do.” Other students commented that people bullied electronically because they were scared of the person they were harassing or afraid to get caught. In fact, the second most common theme found among the responses suggested that students bully electronically to avoid getting caught. One response stated, “So they wouldn’t be caught by a grown up or teacher. It would be safer to text message” while another said, “I think some kids bully others using text-messages and Internet because it’s really hard to find out who does it like that but it’s easy to find out who bullied someone verbally or physically.” The two most common themes suggest that students engage in cyberbullying in order to avoid a face-to-face confrontation that may lead to getting in trouble. Although not as common as the previously discussed themes, many students indicated that cyberbullies bully others because they are jealous, insecure or “have no lives.” The following
section will compare the results of the present study to past research and discuss implications of the current findings.
Chapter 5

DISCUSSION

The current investigation was an exploratory study to better understand the number of students involved in traditional bullying and cyberbullying, as well as the demographic characteristics of those individuals. While past research has examined the relationships between gender and ethnicity to traditional bullying, few have considered these factors in terms of cyberbullying. In addition, there is currently little information regarding the relationship between cyberbullying and access to electronic devices. The present study sought to increase the existing information currently available regarding cyberbullying by investigating the relationships between cyberbullying and gender, ethnicity, and electronic devices.

A Comparison of Results to Prior Findings

The results showed that roughly 25% of participants were victims of traditional bullying and nearly 20% were victims of cyberbullying. These results are considerably lower than the results reported by Raskauskas and Stoltz (2007), who found that roughly 72% of their sample had been victimized in the traditional format and nearly 49% had been cyber-bullied. However, the results of the present study showed very similar results for students involved as bullies. The current findings indicate that roughly 60% of students were traditional bullies and 24% of students were cyberbullies. Raskauskas and Stoltz found that approximately 64% of their sample was identified as a traditional bully and 21% reported being a cyberbully. The findings of both studies appear to correspond to
Smith et al. (2008), who found that more individuals are involved in traditional bullying than cyberbullying.

While the number of students involved appeared to differ across the various forms of traditional bullying and cyberbullying, the results of the current study indicate that students involved in one form of bullying were likely to be involved in another. In addition to concluding that traditional victims were likely to bully others in the traditional form, the present findings reveal that those students were also likely to be victims and perpetrators of cyberbullying. This finding was consistent with previous research, suggesting that students who are involved in one form of bullying often participate in other forms as well (Li, 2005; Raskauskas & Stolz, 2007; Wolak et al., 2007).

Since the current study and Raskauskas and Stoltz (2007) utilized the same questionnaire and methodology for classifying participants and bullies and victims, the findings between the two should be comparable. It is possible that the noticeable difference in reported victimization between the two may be related to participant characteristics. The current study had over twice as many participants and a considerably more diverse sample, with nearly 60% Hispanic, 21% Caucasian, and 5% Asian or Pacific Islander. Of the 84 participants in the study by Raskauskas and Stoltz, nearly 90% identified themselves as Caucasian. In addition, the age range of their participants was relatively higher than the current study. The participants in the current study reported ages between 11 and 15 years, whereas Raskauskas and Stoltz included participants between the ages of 13 and 18 years. It may be that the differences in reported victimization are related to the age differences of participants, suggesting that older students may be more likely to experience cyber victimization.
Another potential explanation for the difference may come from differing perceptions of bullying. Sawyer et al. (2008) explored the idea that some ethnicities may be more or less likely to report that they had been bullied. In their discussion, the researchers presented the possibility that minority groups may perceive bullying and victimization different than their Caucasian counterparts. These individuals may associate a negative stigma with identifying themselves as a victim, and therefore avoid responding “yes” to questions such as, “During this school year have you ever been bullied through text-messaging?” It is possible that the ethnic differences between the two samples led to the observed differences in reported victimization.

The results of the current study found that ethnicity was significantly related to cyber victimization, with participants identified as “Other” significantly more likely to be a cyber victim than Caucasian or Hispanic participants. This finding is noteworthy in light of the ethnic breakdown of the current sample. Nansel et al. (2001) found that Hispanics were considerably more likely to be involved in bullying than other ethnic groups. Despite the large number of Hispanic students who participated in this study, our results did not support this finding. One possible explanation for this difference may come from ethnic breakdown of individual schools. In the participating schools, Hispanic students made up a majority of the student body. Individuals classified as “Other” were grouped together as a result of being a minority within the participating schools. These results may suggest that individuals who are ethnic minorities at school may be at an increased risk of becoming a victim of cyberbullying.

The present findings are also contradictory to the results of Sawyer et al. (2008). The identification of cyber victims in the current study was based on yes or no responses to questions such as, “During the school year have you ever been
bullied through text-messaging?” This question was posed after providing participants with a written definition of bullying. Sawyer et al. suggest that Caucasian students would be most likely to identify themselves as victims through a definition-based measure. However, this theory was not supported by the current findings. Again, it is possible that the differences in participant characteristics between the current study and past research may have influenced the current findings. Ninety% of participants in the study by Raskauskas and Stoltz (2007) and 64% of the participants in the study by Sawyer et al. were Caucasian whereas only 21% of the current study identified themselves as Caucasian.

The relationship between gender and involvement in bullying was explored in the current study. Of the various forms of traditional bullying and cyberbullying, only traditional victimization was found to be significantly related to gender. The present study found that females were more likely than males to identify themselves as a victim of traditional bullying. This finding is contrary to the findings of both Nansel et al. (2001) and Seals and Young (2003). Nansel et al. found that 12.9% of males reported bullying weekly, whereas only 5.2% of females reported this. In addition, 10.8% of males reported being bullied when 6.4% of females reported victimization. Seals and Young found that of all of students who reported bullying, 66.7% were male. The difference between previous research and the present study may have been influenced by the fact that two-thirds of the current sample was female.

Despite the disparity between genders represented in the current study, the lack of significant differences between gender and cyberbullying appears consistent with previous findings. Li (2005, 2006) suggested that the gender
difference in bullying is diminished in cyberbullying, as males and females are both likely to be the perpetrators and victims of cyberbullying.

**Electronic Devices and Cyberbullying**

Due to the fact that cyberbullying employs the use of electronic devices, the current study attempted to determine which devices were used most often, as well as their relationship to involvement in cyberbullying. The results of the current study indicated that while text-message, Internet, and picture-phone victimization occurred significantly more frequently than expected by chance, overall involvement was relatively low (i.e., roughly 8, 4, and 8%, respectively). Text-message and picture-phone victimization occurred more frequently than internet victimization, suggesting that cell phones may be a more commonly used device for cyberbullying than the Internet.

Because cyberbullying requires at least some access to the electronic devices used to cyberbully, the current study also examined whether student access to electronic devices was related to involvement in cyberbullying. The results indicated that a significant relationship existed between access to electronic devices and cyber victimization, with cyber victims more likely to have higher access. However, there was not a significant relationship between access to electronic devices and cyberbullies. These findings may indicate that students who spend more time utilizing electronic devices (i.e., cell phones and computers) are more likely to be victims of cyberbullying. As this was a new aspect of cyberbullying investigated by the current study, further research would be necessary in order to determine whether there is a relationship between time spent using electronic devices and cyberbullying, as high access to devices does not imply significantly more time using such devices.
While the present study did not specifically study the relationship between socioeconomic status and cyberbullying, the results of this investigation’s exploration into access to electronic devices may have implications on the relationship between socioeconomic status and cyberbullying. Access to electronic devices such as cell phones, computers, and digital cameras may be considered an indicator of socioeconomic status. The findings of the present study would indicate that students from higher socioeconomic backgrounds are more likely to be victims of cyberbullying. Future research into this topic would be necessary to determine whether cyberbullying is an upper class phenomenon or simply a product having access to the electronic devices necessary for cyberbullying.

**Qualitative Results**

The responses to the two open-ended questions included in the present study may serve to increase the current information available on the perceived effects of cyberbullying as well as the purpose for engaging in it. Students reported that they felt that being victimized electronically had altered their perceptions of themselves and the way they would choose to interact with others in the future. In regards to the motivation behind cyberbullying, many students suggested that others might engage in this behavior to avoid a face-to-face confrontation that may lead to getting caught. This explanation is consistent with what Mason (2008) described as the disinhibition effect and may be the result of the lack of accountability for electronic interactions, the anonymity of using such devices or a combination of both. Students clearly felt that others were not as likely to be held responsible for cyberbullying as they might for traditional bullying.
Suggestions for School Policy

The current investigation was an exploratory study intended to identify various factors associated with traditional bullying and cyberbullying. While a considerable amount of information is available on traditional bullying, few studies have explored the factors associated with cyberbullying. A significant impact on this lack of information can be seen in the schools that are forced to deal with the effects of cyberbullying. The results of this study may help increase the current information available on cyberbullying, with implications for school policy.

One of the most consistent findings of this study and previous works have been that students involved in traditional bullying are also likely to be involved in cyberbullying (Li, 2005; Raskauskas & Stoltz, 2007; Wolak et al., 2007). As indicated in the open-ended questions of the present study, one of the motivating factors for engaging in cyberbullying may be that students hope to avoid identification, and as a result, punishment. As schools are likely to have more power in identifying individuals involved in traditional bullying, they may be able to use this information to infer that the same students may be involved in cyberbullying as well, therefore allowing schools to intercede in more cyberbullying cases. In addition to higher identification, schools need to enforce strict anti-cyberbullying policies that convey the message that cyberbullying will not be tolerated and that students will be held responsible for their behavior on and off campus.

Another possible stance for schools to take may be a firm no cell phone policy. The findings from this study indicate that when students are victimized electronically, the device used is more likely to be a cell phone. While many schools likely prohibit cell phone use, the practicality of checking whether
students are carrying their phones in pockets or backpacks remains an issue. Increasing supervision in classrooms, bathrooms, and other remote locations where students may be able to utilize the text-messaging and picture applications on their cell phones may help reduce the amount of cyberbullying that occurs on campus. In addition, schools may need to establish safe methods for students to report cyberbullying without fearing punishment. Agatson et al. (2007) reported that some students may be reluctant to report cyberbullying through cell phones because they are banned on school campuses. Although there may be a need to forbid cell phones on campus, schools should make students aware of the greater need to help victims over punishing cell phone users. Informing parents about cyberbullying and the devices used to engage in this behavior may also help parents monitor their children’s activities outside of school and the technologies they bring with them to school. Finally, the results of the current study and past research (Raskauskas & Stoltz, 2007; Smith et al., 2008) indicate that traditional bullying continues to be more prevalent than cyberbullying. Schools should continue to utilize anti-bullying programs with an emphasis on traditional bullying. However, as cyberbullying may increase with the rise of technology, schools should seek programs with an anti-cyberbullying component. As students are likely to be involved in both forms of bullying, such a program would likely lead to the highest level of effectiveness.

Critiques and Limitations

One limitation of the present study was the lack of balanced ethnic groups represented in our sample. One of the research questions posed in this study sought to establish whether a relationship existed between ethnicity and involvement in bullying. The findings of the current study may have been
impacted by the differing size of ethnic groups in our sample. In order to
determine conclusively whether ethnicity was a significant factor, future studies
should seek to include similarly sized groups to better understand the relationship
of ethnicity to bullying. One way to accomplish this objective may be to include
participants from diverse locations with varying demographic characteristics.

In addition to imbalanced ethnic groups, the number of participants and the
rate of response from various schools were notably different from one another. A
total of 169 students participated in the current study from four different schools in
Central California. Of the 169 participants, 78 came from school “D,” who had a
response rate of 65%. Schools “A, B, and C” had significantly lower response
rates of 38, 16 and 21%, respectively, despite providing similar numbers of
students the opportunity to participate at each location. The differing
characteristics of students from schools with high and low participation may have
had an impact on the observed findings in the study. Demand characteristics may
have played a role in the way participants responded to items on the questionnaire
as well. Of the 35% of students who chose to participate in the study, some may
have felt pressured to answer questions as expected or to be a “good participant.”
This may have led to an increased number of students indicating involvement in
bullying. On the contrary, the need to be viewed in a socially acceptable way may
have led participants to under report their experiences in bullying. These factors
must be considered when exploring the results of self-report data.

Another possible limitation of the current study is the classification of
participants as traditional and cyberbullies. The current study used the same
methodology for classifying individuals as victims and bullies as Raskauskas and
Stoltz (2007), in order to make comparisons between the two studies. In their
study, Raskauskas and Stoltz classified all individuals who responded anything
other than “not at all like me” to questions 16 through 21 a bully. Therefore, students who circled “a little like me” to one item would be considered a bully. This definition may be too general and may have influenced the large number of students identified as traditional bullies in the current study. Future research should utilize more specific definitions of bullying, which encompass the consistent and targeted harassment associated with bullying.

As this study was considered exploratory, the questionnaire used was broad in order to include information on a variety of aspects associated with bullying. Future research may want to utilize a more detailed and extensive questionnaire to better answer specific questions regarding cyberbullying. The current study focused on three aspects of cyberbullying: text-message, Internet, and picture-phone. Additional devices and a more detailed classification of devices may have increased the current information on the devices used in cyberbullying. For example, as opposed to using the general term “Internet,” future research may want to provide participants with a list of potential Internet sites used to bully others (e.g., email, MySpace and Facebook, etc.). This would provide researchers and schools with specific examples of the websites on the Internet used most frequently to engage in cyberbullying behavior. Furthermore, the current questionnaire included only two questions regarding involvement as a cyberbully. More questions regarding cyberbullies and victims would advance the present information on the relatively new issue of cyberbullying.
REFERENCES
REFERENCES


APPENDIX A
INTERNET EXPERIENCES QUESTIONNAIRE
Appendix A

Internet Experiences Questionnaire

Background

Your age: _____ years. Gender (circle one): Girl Boy

Current Grade in School (circle one): 7th 8th

How would you describe your ethnic background:
- Black or African American
- White or Caucasian
- Asian or Pacific Islander
- Hispanic
- American Indian/Alaskan Native
- Other (Explain) ______________________________________________

Which of the following electronic devices do you have access to? (check all that apply)
- Computer with email
- Webpage building software
- Cell phones with text-message capabilities
- Cell phone with picture taking capabilities
- Digital Camera

Your Experiences

For this section, bullying is when someone says things or does things over and over to make you feel bad or uncomfortable. This includes teasing, hitting or fighting, threats, leaving you out on purpose, sending you messages or images, or starting rumors about you.

1. In the past school year have you been bullied? Yes No

2. In the past 30 days, how often have the following things happened to you at school?
   a. You have been hit, pushed, or shoved
      Not at all 1–2 Times 3–4 Times Once a Week Several Times A Week

   b. You have been teased or called mean names
      Not at all 1–2 Times 3–4 Times Once a Week Several Times A Week

   c. People have started rumors about you
      Not at all 1–2 Times 3–4 Times Once a Week Several Times A Week
d. People have left you out on purpose
Not at all  1–2 Times  3–4 Times  Once a Week  Several Times A Week

Text-message Bullying

3. During this school year have you ever been bullied through text-messaging?
    Yes  No

4. How many times did this occur?:  0    1–2    3–5    6–10    11–15    16 or more

5. Did you know who it was that was doing it?  Yes  No
    If yes, what was the gender of the person?  Male  Female

6. Was the text-message bullying the result of a failed romantic relationship?  Yes  No

Internet Bullying

7. During this school year have you ever been bullied by someone creating a website about you, using your pictures on-line without permission, or creating forums about you?
    Yes  No

8. How many times did this occur?: 0    1–2    3–5    6–10    11–15    16 or more

9. Did you know who it was that was doing it?  Yes  No
    If yes, what was the gender of the person?  Male  Female

10. Was the internet bullying the result of a failed romantic relationship?  Yes  No

Picture Phone Bullying

11. During this school year have you ever been bullied by someone taking pictures of you with picture phones without permission and showing the pictures to others to embarrass you?
    Yes  No

12. How many times did this occur?: 0    1–2    3–5    6–10    11–15    16 or more

13. Did you know who it was that was doing it?  Yes  No
    If yes, what was the gender of the person?  Male  Female

14. Was the picture phone bullying the result of a failed romantic relationship?  Yes  No
15. If you have been bullied by text-messaging, internet, or picture phone, do you think that it has affected you?  
   Yes  No

If Yes, How? ___________________________________________________________
______________________________________________________________________
______________________________________________________________________

The following items are statements about how some kids behave. Please circle how much this is or is not like you. Remember, no one will see your answers to these questions and do not put your name on your survey.

16. Some kids push, hit, or shove other kids at school.
   A lot like me   Kind of like me   A little like me   Not at all like me

17. Some kids call other kids mean names at school.
   A lot like me   Kind of like me   A little like me   Not at all like me

18. Some kids start rumors at school.
   A lot like me   Kind of like me   A little like me   Not at all like me

19. Some kids leave other people out of things on purpose.
   A lot like me   Kind of like me   A little like me   Not at all like me

20. Some kids send text-messages that are not nice.
   A lot like me   Kind of like me   A little like me   Not at all like me

21. Some kids make websites that say mean things about other people.
   A lot like me   Kind of like me   A little like me   Not at all like me

22. Why do you think that some kids bully others using text-messages and the internet?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
APPENDIX B

SCRIPT TO INTRODUCE QUESTIONNAIRE
Appendix B

Script to Introduce Questionnaire

“You are being asked to participate in a study that will examine student experiences with bullying and electronic devices such as text-messaging, the internet, and picture phones. The study will consist of a brief 10 minute questionnaire. All answers will remain anonymous and confidential. If you choose to participate, you will be given a form to take to your parent or legal guardian in order for them to consent to your participation in the study. Those students whose parents consent will also be asked to sign a form stating that they agree to participate in the study. I will return in one week to administer the questionnaire to all students who have both consent forms signed. You do not have to participate in this study. Deciding whether or not to participate will not have an effect on your relationship with this school or Fresno State. I will now pass out the parent consent forms. Please take the form home and return it to your teacher within one week if you would like to participate. Thank you all for your time and attention.”
APPENDIX C
INFORMED CONSENT FORM
Appendix C

Informed Consent Form

Your son or daughter has been invited to participate in a study conducted by Katelyn Kelly, under the supervision of Dr. Karl Oswald of California State University, Fresno. We hope to learn valuable information regarding the experiences of students with electronic devices such as computers and cell phones. As a student in the 7th, 8th, or 9th grade, your child was selected as a possible participant in this study.

If you decide to allow your child to participate, he or she will be asked to respond to questions regarding bullying on and off campus as well as his or her experiences with text-messaging, the internet, and picture phones. This study is considered low risk. Possible benefits for participating in this study include gaining knowledge about the effects of bullying through electronic media and what devices are commonly used to bully others. We cannot guarantee, however, that your child will receive any benefits from this study.

Any information that is obtained in connection with this study and that can be identified with your child will remain private and will be disclosed only with your permission or as required by law. If you give us your permission by signing this document, we plan to disclose only information about your child’s responses. Each participant’s responses will be listed without their name or identifying information. The data we collect will be disclosed to California State University, Fresno and possibly to other research institutions, conferences, or journals.

Your decision whether or not to allow your child to participate will not prejudice your future relations with California State University, Fresno. If you decide to allow your child to participate, you are free to withdraw your consent and to discontinue your child’s participation at any time without penalty.

If you have any questions, please ask. You may contact Katelyn Kelly at 559-909-2295 or Dr. Karl Oswald at 559-278-4215 and they will be happy to answer them. The Committee on the Protection of Human Subjects is also available for questions at 559-278-4468.

If you request, you will be given a copy of this form to keep.

YOU ARE MAKING A DECISION WHETHER OR NOT TO ALLOW YOUR CHILD TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO ALLOW YOUR SON OR DAUGHTER TO PARTICIPATE, HAVING READ THE INFORMATION PROVIDED ABOVE.

Name of Participant (Please Print)

Date Parent Signature

Date Signature of Investigator
APPENDIX D
FORMATO DE CONSENTIMIENTO INFORMADO
Appendix D

Formato de Consentimiento Informado

Su hijo o su hija ha sido invitado a participar en un estudio realizado por Katelyn Kelly, bajo la supervisión de la Dr. Karl Oswald de la Universidad Estatal de California, Fresno. Esperamos conocer valiosa información sobre los factores que afectan las aspiraciones a la universidad de los estudiantes de primaria. Como estudiante de 7º, 8º, 9º grado, su hijo fue seleccionado como un posible participante en este estudio.

Si usted decide permitir que su hijo participe, a él o ella se le pedirá que conteste algunas preguntas sobre el pelón en escuela y afuera de la escuela y de sus experiencias con los mensajes texto, el internet, y los teléfonos que tiene cámaras. No existen riesgos previstos asociados con esta encuesta. Los posibles beneficios por participar en esta encuesta incluyen el adquirir conocimiento sobre los efectos del pelón que usando los electrónicos y otros máquinas que se usan normalmente para ser peleones con otros. Sin embargo, no podemos garantizar que su hijo recibirá algún beneficio de este estudio.

Cualquier información que se obtenga en relación a este estudio y que pueda ser identificado con su hijo permanecerá de manera confidencial. La información que recopilaremos será revelada a la Universidad Estatal de California, Fresno y posiblemente a otras instituciones de investigación, conferencias o periódicos.

La participación es voluntaria. La decisión que usted tome en cuanto a la participación o no participación de su hijo no perjudicará sus futuras relaciones con la Universidad Estatal de California, Fresno. Si usted decide permitir que su hijo participe, usted tiene la libertad de retirar su consentimiento y de interrumpir la participación de su hijo en cualquier momento sin ninguna penalidad.

Si usted tiene alguna pregunta, favor de contactar a Katelyn Kelly al 559-909-2295 o al Dr. Karl Oswald al 559-278-4215 o la Comité de Humanidad a 559-278-4468.

Si así lo solicita, a usted se le proporcionará una copia de este formato para que la conserve.

Usted está tomando una decisión en cuanto a permitir o no que su hijo participe en una encuesta de la escuela. Su firma indica su decisión a permitir que su hijo o hija participe, habiendo leyendo la información arriba proporcionada.

<table>
<thead>
<tr>
<th>Nombre del Participante (en letra impresa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fecha</td>
</tr>
<tr>
<td>Fecha</td>
</tr>
</tbody>
</table>
APPENDIX E
MINOR CONSENT FORM
Your have been invited to participate in a study conducted by Katelyn Kelly of California State University, Fresno. We hope to learn valuable information regarding the experiences of students with electronic devices such as computers and cell phones. Your parents have already been told about the project. As a student in the 7th, 8th, or 9th grade, you have been selected as a possible participant in this study.

If you decide to participate, you will be asked to respond to questions regarding bullying on and off campus as well as your experiences with text-messaging, the internet, and picture phones. This study is considered low risk. Possible benefits for participating in this study include gaining knowledge about the effects of bullying through electronic media and what devices are commonly used to bully others. We cannot guarantee, however, that you will receive any benefits from this study.

Any information that is obtained in connection with this study and that can be identified with you will remain private and will be disclosed only with your permission or as required by law. If you give us your permission by signing this document, we plan to disclose only information about your responses. Each participant’s responses will be listed without their name or any other identifying information. The data we collect will be disclosed to California State University, Fresno and possibly to other research institutions, conferences, or journals.

Your decision whether or not to participate will not affect your future relations with California State University, Fresno. If you decide to participate, you are free to withdraw your consent and to stop your participation at any time without penalty. Even if your parents gave their permission, you can still decide not to participate or to stop at any time. The researchers will respect your decision.

If you have any questions, please ask. You may contact Katelyn Kelly at 559-909-2295 or Dr. Karl Oswald at 559-278-4215 and they will be happy to answer them. The Committee on the Protection of Human Subjects is also available for questions at 559-278-4468.

If you request, you will be given a copy of this form to keep.

YOU ARE MAKING A DECISION WHETHER OR NOT TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE, HAVING READ THE INFORMATION PROVIDED ABOVE.

Date ______________________ Signature of Minor ______________________

Date ______________________ Signature of Investigator ______________________
California State University, Fresno

Non-Exclusive Distribution License
(to make your thesis available electronically via the library’s eCollections database)

By submitting this license, you (the author or copyright holder) grant to CSU, Fresno Digital Scholar the non-exclusive right to reproduce, translate (as defined in the next paragraph), and/or distribute your submission (including the abstract) worldwide in print and electronic format and in any medium, including but not limited to audio or video.

You agree that CSU, Fresno may, without changing the content, translate the submission to any medium or format for the purpose of preservation.

You also agree that the submission is your original work, and that you have the right to grant the rights contained in this license. You also represent that your submission does not, to the best of your knowledge, infringe upon anyone’s copyright.

If the submission reproduces material for which you do not hold copyright and that would not be considered fair use outside the copyright law, you represent that you have obtained the unrestricted permission of the copyright owner to grant CSU, Fresno the rights required by this license, and that such third-party material is clearly identified and acknowledged within the text or content of the submission.

If the submission is based upon work that has been sponsored or supported by an agency or organization other than California State University, Fresno, you represent that you have fulfilled any right of review or other obligations required by such contract or agreement.

California State University, Fresno will clearly identify your name as the author or owner of the submission and will not make any alteration, other than as allowed by this license, to your submission. By typing your name and date in the fields below, you indicate your agreement to the terms of this distribution license.

Katelyn Kelly

Type full name as it appears on submission

March 10, 2010

Date