DON'T BE MEAN BEHIND THE SCREEN:

CYBERBULLYING PREVALENCE IN AN

OKLAHOMA SCHOOL DISTRICT

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Title of Study: DON'T BE MEAN BEHIND THE SCREEN: CYBERBULLYING PREVALENCE IN AN OKLAHOMA SCHOOL DISTRICT

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Abstract: Thanks to advances in technology, cyberbullying is a growing form of bullying over the last decade. This study examined cyberbullying prevalence based on experiences shared by 1,014 students at a rural public school in Oklahoma. Over 80% of all sixth through twelfth grade students completed the Cyberbullying and Online Aggression Survey, providing victimization and offending experiences. While most cyberbully studies have analyzed results based on gender and age, few, if any studies, include socioeconomic status and special education variables; this study included these two variables.

Results indicated 38.6% of students were victimized and 22.4% participated as an offender. Results of one-way ANOVA for gender, socioeconomic status, and special education revealed significance with victimization scores. However, gender and socioeconomic status did not show significance when compared with offending scores. Special education results were of concern with 59.8% of special education students reporting victimization and 36.1% admitting to offending others. Statistical significance was found when comparing the special education variable with victimization and offending scores. These findings indicate a cyberbully problem among special educations students.

Although gender and grade level findings were consistent with previous research studies and special education findings showed significance, the socioeconomic status variable found lower socioeconomic students report a higher frequency of victimization, yet there were no differences in reports of offending. Further findings revealed socioeconomic status was statistically significant with victimization but not with offending. All of the findings indicate a high prevalence of cyberbullying within the studied school district and provided a foundation for school administration to focus on preventative measures.

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CHAPTER I

INTRODUCTION

Introduction

When the term "school violence" is used, most individuals conjure up images of school shootings. In fact, it is usually just the extreme examples (i.e. Jonesboro, AR; Columbine; Virginia Tech; Sandy Hook) that catch the attention of America. However, Leary, Kowalski, Smith, and Phillips (2003) stated that from 1995 to 2001 school shootings have claimed the lives of nearly 40 students and injured many others. Chalmers (2009) identified through his research with teen killers that "bullying is present" (p. 89) in their lives. He stated, "Numerous national law enforcement studies expose the leading cause of school shootings to bullying" (Chalmers, 2009, p. 89). The death of innocent children often get attention, causing school administrators, teachers, and parents as well as local, state, and federal government entities, to heighten their awareness of stopping school violence. However, researchers believe that student bullying is often the driving force behind these extreme instances (Chalmers, 2009; Leary et al., 2003).

If school bullying is a potential predictor of school shootings, should not schools and government entities focus their attention on preventing bullying? The answer

undoubtedly is yes. In fact, that is exactly what is taking place among the majority of states and schools across the country. Although there are many hidden dangers within a school that impact the social, cognitive, and emotional well being of others (Gunzelmann, 2005), bullying is one of the greatest hidden dangers affecting schools throughout the United States (Dufresne & Dorn, 2005).

Although many relate bullying to school violence, these instances are merely extreme examples. School bullying is not a new phenomenon; it is, however, receiving more attention due to the mentioned school shootings and a growing research base focusing more on the effects the act has on victims. One of the leading researchers on student bullying, Dan Olweus (1993), defined bullying as being when a student "is exposed, repeatedly, and over time, to negative actions on the part of one or more other students" (p. 9). This type of student bullying happens everyday to many students, and the act can have negative implications on students' well-being; however, most of the time these effects never lead to extreme school violence. Statistics regarding the occurrence of bullying among students in schools are staggering; in fact, statistics in the United States reveal that at least one in every four students is bullied regularly (Bullying Statistics, "School Bullying Statistics", 2013, para. 1). Researchers found several behaviors that victims of bullying face, range from fighting to depression to suicide (Dufresne & Dorn, 2005; Hinduja & Patchin, 2008; Rothon, Head, Klineberg, & Stansfeld, 2011; Swearer, Espelage, Vaillancourt, & Hymel, 2010).

In addition to traditional bullying, cyberbullying has become a growing trend. Cyberbullying is a fairly new phenomenon, within at least the last ten years, rapidly growing among school-aged children. Hinduja and Patchin (2012) defined cyberbullying

as “willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices” (p. 32). Cyberbullying allows for anonymity for the bully and creates the opportunity for 24/7 access to the victim(s). The statistics for cyberbullying are surprising; an i-Safe America survey (2003) dating back to the early days of cyberbullying found that “42% of kids have been bullied while online” (Outreach & Parents, Cyber Bulling: Statistics and Tips, para. 3). While cyberbullying has not “taken over” the traditional types of bullying, in respect to prevalence, researchers found that victims of cyberbullying were also victims of traditional bullying (Wang, Iannotti, Luk, & Nansel, 2010).

Traditional bullying and cyberbullying are concerns among parents, students, and school administrators, with cyberbullying becoming more difficult to manage from a school perspective. Determining how to handle these situations is becoming more and more difficult; yet, each and every day numerous students deal with being cyberbullied. Although the act of bullying, no matter the method, may never end, continuing to gather data that helps school administrators better grasp the gravity of the situation within their own schools is important if students are to feel safe when they enter the school doors.

Statement of the Problem

Children today are always “connected.” With the emergence of the Internet, today’s generation is growing up in a digital world with access to unlimited information via the Internet; most have access to information at their fingertips on their smart phones. Hinduja and Patchin (2009) stated that as of November 2007, 1.26 billion people had access to the Internet, an increase of 249.6 percent since the year 2000. Another study in 2011 found that 93.6 percent of 1,426 children surveyed, aged 10 to 18 were using the

Internet for schoolwork (J. Patchin, personal communication, April 2, 2013) compared to a similar study two years prior showing only 73.7 percent (Hinduja & Patchin, 2009).

Although the Internet is used by billions of people worldwide, the popularity of social media like Facebook, Twitter, Instagram, and Vine is capturing the attention of millions of teenagers. Although these sites can provide a great communication outlet for students, they are also causing today's generation to focus less on face-to-face interactions and more on digital, sometimes anonymous interactions (Juvonen & Gross, 2008; Smith et al., 2008; Tokunaga, 2010).

The potential for anonymity through a new form of bullying—cyberbullying—is causing a problem for students and schools. Bully victims can no longer leave the harsh reality of physical or social bullying at school when they go home; with the availability of social media and the internet, cyberbullying can follow victims home, creating the potential for 24/7 bullying. Kowalski and Limber (2007) conducted a study on middle school students and found that 11 percent had been bullied by an electronic method within a period of two months. This number is rising, according to a survey conducted by the U.S. Department of Justice (2011) that reported 19.6 percent of students ages 12-18 have been a victim of cyberbullying at least once or twice a month, and 71.9 percent at least once or twice during a school year. Cyberbullying is a growing epidemic that is difficult to prevent.

The use and availability of the Internet are increasing at a rapid pace, providing students the avenue for participating in cyberbullying. The increase of cyberbullying results in the involvement of school administrators to deal with the growing phenomenon. State lawmakers must take the time to re-evaluate the bullying laws within their

respective states, ensuring that electronic bullying is included and school administrators must develop a plan of action to address the emergence of cyberbullying among their students. Although most of the 50 states have anti-bullying laws, a smaller number have included cyberbullying in their statutes (Hinduja & Patchin, 2013). Similar to state laws, school district policies guide decision making for administrators. Administrators use research to guide the creation or adaptation of policies; if administrators know the types of behaviors taking place among a school's students, they can use that data to guide policies designed to reduce cyberbullying. However, unless one knows the prevalence of cyberbullying within a particular school district, developing these policies may prove difficult.

Purpose of the Study

The purpose of this study is to examine cyberbullying as experienced by students at a rural public school in Oklahoma. The study will be an exploratory, descriptive study adding to the growing body of research focused on cyberbullying. With electronic media constantly changing for adolescents, this study will help determine the prevalence of cyberbullying for students in the sixth through twelfth grades based on four demographic variables: gender, grade level, socioeconomic status, and identified as special education. The outcome will help district and building administrators understand the prevalence of cyberbullying within the district and establish prevention and training plans for all students.

Research Questions

The overriding questions for this research study ask: What is the prevalence of cyberbullying among adolescents? In order to answer this question, the following four

research questions must be considered:

- What is the prevalence of cyberbully victimization and cyberbully offending among middle and high school students?
- Is there a significant difference in how students rate cyberbully victimization in their schools according to their gender, socioeconomic status, special services, or grade level, or combinations of those factors?
    a. Cyberbully victimization scores between male and female students at each grade level.
    b. Cyberbully victimization scores between students receiving free or reduced lunch and students who do not at each grade level.
    c. Cyberbully victimization scores between students who receive special services and students who do not at each grade level.
    d. Cyberbully victimization scores across grade level in regard to gender.
    e. Cyberbully victimization scores between genders in regard to socioeconomic status.
    f. Cyberbully victimization scores between genders in regard to special services.
- Is there a significant difference in how students rate cyberbully offending in their schools according to their gender, socioeconomic status, special services, or grade level, or combinations of those factors?
    g. Cyberbully offending scores between male and female students at each grade level.

h. Cyberbully offending scores between students receiving free or reduced lunch and students who do not at each grade level.
i. Cyberbully offending scores between students who receive special services and students who do not at each grade level.
j. Cyberbully offending scores across grade level in regard to gender.
k. Cyberbully offending scores between genders in regard to socioeconomic status.
l. Cyberbully offending scores between genders in regard to special services.

- Is there a relationship between cyberbully victimization and cyberbully offending among the students?

Theoretical Framework

The theoretical framework for this research study is Agnew's (1992, 2001) general strain theory (GST). GST "focuses on the individual and his or her immediate social environment" (Agnew, 1992, p. 48). Although GST was first used to study criminology and deviance, Agnew (2001) identified bullying–or "peer abuse"–as a potential strain of delinquency. Delinquency is defined as "conduct that is out of accord with accepted behavior or the law" (Merriam-Webster, n.d.). Given this definition, bullying is not an accepted behavior among individuals; therefore, bullies may be considered delinquents.

The main focus of GST is "negative relationships with others" (Agnew, 1992, p. 48); specifically, when individuals are not treated according to their own desires. Agnew (1992) identified three types of strains that refer to different types of negative

relationships with other individuals when these individuals "(1) prevent one from achieving positively valued goals, (2) remove or threaten to remove positively valued stimuli that one possesses, or (3) present or threaten to present one with noxious or negatively valued stimuli" (p. 50).

The act of bullying, while it may not lead to criminal behavior, does fall under deviant behavior and delinquency (Patchin & Hinduja, 2011) and can have profound effects on victims. In their study, Hay, Meldrum, and Mann (2010), found that bullying was consistent with delinquency, and there was a strong relationship between bullying and delinquency. Their study found this specific relationship especially true with cyberbullying (Hay et al., 2010). Hays et al. (2010) found that cyberbullying could be more problematic for individuals than traditional bullying and stated that bullying is a consequential strain of Agnew's GST.

Research Procedures

To research cyberbullying between sixth through twelfth grade students, a survey was used to collect data. Creswell (2009) stated that surveys are used to observe "trends, attitudes, or opinions of a population by studying a sample of that population" (p. 12). In order to gather data related to cyberbullying as both a victim and offender, the Cyberbulling and Online Aggression Survey Instrument (Hinduja & Patchin, 2015) was used (see Appendix A). This survey instrument is constructed of 49 questions divided into two sections: cyberbully victimization and cyberbully offending. Forty-six of the questions focus on the 30-day period prior to completing the survey. There were five answer responses: never, once, a few times, several times, and many times. Twenty-eight

questions focused on online environments used to cyberbully others; the remaining 21 questions focused on methods used by cyberbullies.

The survey was administered to students in grades six through twelve at a rural school district in northeastern Oklahoma. The sample included 1,260 students who were invited to participate. In addition to the survey listed, students answered six descriptive and demographic questions to help determine their gender, grade level, socioeconomic status, identification with special education, home internet access, and personal cell phone; however, all surveys were completed anonymously. Parents were made aware of the research being conducted within their students' school, and given the option to request their student(s) not participate in the survey. On the day of the survey, students were given the option to decline participation. Results and recommendations were shared with district administration to help them determine courses of action and potential policy changes to help combat potential bullying within the schools.

Significance of the Study

Although the term cyberbullying has become better known over the last decade, and the research surrounding this phenomenon is growing, understanding how to prevent cyberbullying remains the issue facing administrators (Borgwald & Theixos, 2013; Swearer et al., 2010; Willard, 2007). Research on traditional bullying is prolific—outlining the types of bullying, the effects that bullying has on the victims, and when bullying is most prevalent; however, research on cyberbullying is just beginning to scratch the surface of these same issues. Cyberbullying research is making great strides to answer some of the difficult questions related to electronic methods and victim effects, but with technology changing every day, it is difficult for researchers to keep up and for

administrators to understand their role in preventing this growing problem (Diamanduros, Downs, & Jenkins, 2008).

This study will add to the literature by investigating the occurrence of cyberbullying incidents among a specific group of adolescents. In addition, specific demographic variables were analyzed to determine trends among each variable. Research has shown that cyberbullying others increases with age (Hinduja & Patchin, 2008; Kowalski & Limber, 2007; Mishna et al., 2010; Smith et al., 2008; Vandebosch & Van Cleemput, 2009; Ybarra & Mitchell, 2004) but not among gender (Kowalski & Limber, 2007; Li, 2007; Mishna et al., 2010; Walrave & Heirman, 2011); however, other than age and gender, limited research focuses on the stated demographic variables and the prevalence that each plays in victimization and offending.

Exploring these additional variables in terms of victimization and offending also adds to the research field of this phenomenon and continues to grow the literature. Adding to existing research is important because just as technology is constantly changing, adolescents adapt and change along with new technology. Therefore, given the rapid change in technology, what might have been true even three years ago may not be the norm today.

Assumptions and Limitations

There are assumptions and limitations the researcher made for this particular study. The first assumption was that all students in this specific school district have access to technology outside of the school day. This assumption is also a limitation of the study. In order to be cyberbullied, students must have access to a cell phone and/or the ability to access the Internet; if a student does not have regular access to one of these

technologies, their personal experience with cyberbullying may be limited, potentially impacting their ability to provide experiences.

Another assumption was that all students completed the surveys with honesty. The surveys were conducted anonymously, which provided reassurance for students to answer candidly.

Finally, the scope of each survey provides a limitation and assumption. Due to the survey instrument chosen, the data represents only a specific 30-day period of events. This established a limitation of time for the research. However, this time restraint assumes that the 30-day period is representative of bullying incidents compared to other similar time periods and that bullying is consistent throughout the school year.

Definition of Terms

The following terms are operationally defined for this study:

1. Bully – an individual who consciously, willfully, or deliberately engages in activity designed to harm, induce fear through threats of aggression, or create terror toward another individual (Coloroso, 2003).
2. Cyberbullying – intentional and repeated form of aggression through the use of cell phones, computers, or other forms of electronic devices (Hinduja & Patchin, 2012).
3. Physical bullying – harm or threatened harm to an individual's body or property.
4. Social bullying – deliberate harm to an individual through isolation, rejection, or exclusion with the intent to damage the position and relationship of an individual within a social group; also referred to as relational bullying (Hinduja & Patchin, 2009).

5. Traditional bullying – an intentional and repeated form of aggression involving an imbalance of power between the victim and offender (Wang, Iannotti, & Nansel, 2009).
6. Verbal bullying – deliberate infliction of harm to the self-esteem of an individual through insults, cursing, threatening, or expressing any form of unkind word(s) toward another individual; also referred to emotional bullying (Hinduja & Patchin, 2009).
7. Victim – an individual who is subjected to verbal, physical, or relational aggression, just because they are different in some way (Coloroso, 2003).

Summary

All types of bullying are increasing among schools within the United States and around the world. Although states have developed laws governing bullying, with most identifying cyberbullying as part of their statutes, school administrators still deal with a growing number of bullying reports. Traditional bullying research spans several decades and provides administrators the knowledge of how bullying affects victims and the impact the act of bullying can have on the future of bullies. In addition to the ever-increasing trends of technology, cyberbullying is rapidly growing as a new form of bullying, and researchers are working to fully explain cyberbullying and the effect it has on victims and bullies. This study will attempt to identify and understand the prevalence of cyberbullying, as an offender or victim, using four demographic variables within a specific school district in northeastern Oklahoma.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Cyberbullying has developed into a growing research topic within the last ten years (Tokunaga, 2010), primarily due to the increase in students' use of technology. Although traditional bullying is still a concern and has been for decades (Beran & Li, 2007), parents, school administrators, and legislators are just beginning to grasp the effects of cyberbullying. While bullying is a continued concern, cyberbullying is creating issues that parents, administrators, and legislators must determine how to best handle.

Today's teenagers are growing up in a technologically advanced society. They have no knowledge of life without a cell phone or the Internet; in fact, for the most part, they are always "connected." With today's technology, a teenager can communicate with friends 24 hours a day, seven days a week using their smartphones and computers. Smartphones are cell phones "built on a mobile operating system, with more advanced computing capabilities and connectivity than a feature phone" ("Smartphone", n.d.). Hinduja and Patchin (2011) found that 91.7% of teenagers use a cell phone (personal communication, April 2, 2013); it is estimated that nearly 70% of teenagers carry a

smartphone ("Ring the Bells", 2013), up from 36% in 2011 ("Young Adults and Teens", 2012).

Since the majority of teenagers have smartphones, their capabilities of accessing friends via text messages, email, and social media sites are virtually unlimited. In 2011, The Nielsen Company analyzed cell phone usage trends and found that teenagers (ages 13-17) average 3,417 text messages per month, 44% higher than individuals ages 18-24 ("New Mobile Obsession", 2011); this average almost doubles the average number sent by teens just three years prior ("SMS Text Messaging", 2008).

While text messaging is a popular communication avenue for teens, social media also plays a large role. Dabbagh and Kitsantas (2012) defined social media as "a variety of networked tools and technologies that emphasize the social aspects of the Internet as a channel for communication, collaboration, and creative expression" (p. 3). There are a large number of social media sites, but some of the most popular for teenagers include Facebook, Twitter, Instagram, and Snapchat. These websites are accessed from web-based applications on smartphones and directly through an Internet browser on computers. Schneider, O'Donnell, Stueve, and Coulter (2012) found that 93% of teenagers are active users of the Internet, which provides another high frequency area that teenagers may be considered "connected" to their friends.

Advancement in technology has provided some positive attributes to society. However, these technological advancements have created a whole new world for teenagers that their parents never encountered when they were growing up, specifically the "dark" side to pre-teens and teenagers usage of technology. Although this chapter will focus primarily on cyberbullying, it is important to first gain an understanding of the

long-standing problem of bullying. Therefore, the first section of this chapter will focus on defining bullying and progress to the different types of bullying, cyberbullying included. Next, the effects that bullying has on the bully and the victim will be discussed as well as research related to offending and victimization between gender and grade level. Following this brief discussion on bullying, the next section will focus on cyberbullying, beginning with an explication of its definition. Once a foundation has been laid, the remaining subsections will focus on cyber-bullies and cyber-victims outlining specific types of cyberbullying, methods that are used to cyberbully and effects on their well-being as well as differences between gender and age; the final cyberbullying subsection will discuss prevention strategies. The final section of the chapter will emphasize legislation surrounding cyberbullying.

Bullying

Bullying is not a new issue within school walls; in fact, researchers began focusing on school bullying during the late 1960s and early 1970s (Beran and Li, 2007; Olweus, 1993). However, bullying in schools did not begin receiving public and research attention until the late 1980s, early 1990s (Olweus, 1993). Today, it is estimated that nearly 160,000 students skip school each day in the United States in fear of being bullied ("Bullying Statistics 2010", 2010; Murray, Hewitt, Maniss, & Molinatti, 2012). Laws have been created, and amended, to address the increasing amount of bullying taking place within school buildings. In fact, Hinduja and Patchin (2013) found that 49 states have a bullying law in place.

In defining bullying, many researchers use the definition developed by Dan Olweus, who by most is considered the grandfather of bullying research; or they develop

their own definition using many of the same conditions. Olweus (1993) used a general definition when he stated, "A student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students" (p. 9). He added that there must also be an imbalance of power between the bully and the victim. Other researchers such as Wang, Iannotti, and Nansel (2009) defined bullying as "a specific form of aggression, which is intentional, repeated, and involves a disparity of power between the victim and perpetrators" (p. 368). Similarly, Raskauskas and Stoltz (2007) focused on the intent to harm another, occurring over time, or a power or strength imbalance which causes the victims to believe they cannot stop the contact.

There is one interesting difference between these two definitions: the conjunction between the stated criteria is listed as "and" in one definition and "or" in the other. Ortega, Elipe, Mora-Mechán, Calmaestra, and Vega (2009) also uses the conjunction "or" in their definition stating that bullying occurs "when an individual or group intimidates, excludes, harasses, or mistreats, another or others, directly or indirectly" (p. 197); however, Coloroso (2003) uses the "and" conjunction in her definition stating, "Bullying is a conscious, willful, and deliberate hostile activity intended to harm, induce fear through the threat of further aggression, and create terror" (p. 13). With this minor alteration does that mean all conditions must be met for others to consider an act bullying, or just one? There may not be an answer within research for this difference.

Regardless which definition is given in research and which conjunction is used, most researchers identify the same characteristics of bullying. James (2010) summarized

multiple definitions of bullying and identified five essential components of general aggressive behavior:

- Intention to harm - bullying is a deliberate action designed to harm another individual(s);
- Harmful outcome – bullying is designed to cause physical or emotional harm to another;
- Direct or indirect acts – bullying can be either direct like physically hitting an individual or indirect like spreading rumors about others;
- Repetition – bullying deals with repeated aggressive acts, not isolated events; and
- Unequal power – this component deals with a perceived power imbalance and can be based on age, physical strength, or psychological resilience. (pp. 4-5)

Coloroso (2003) identified three of these elements when discussing bullying, but added a fourth component. If the bullying behavior escalates unabated, then a terror component is added rendering the victim powerless (Coloroso, 2003). Understanding these components may provide support to parents and school administrators when dealing with potential bullying situations.

Types of bullying. The act of bullying another individual may take place in a variety of ways. In fact, bullying has been categorized in two different classifications: direct and indirect bullying. Direct bullying involves open attacks on the victim through a variety of methods, including physical contact, verbal comments, and obscene gestures (Kowalski & Limber, 2007; Olweus, 1993; Ortega et al., 2009; Raskauskas & Stoltz, 2007; Safran, 2008; Vandebosch & Van Cleemput, 2009; Wang, Iannotti, Luk, & Nansel, 2010). Indirect bullying, also called relational aggression, involves isolation from a

group, spreading rumors about an individual, and threatening relationships (Kowalski & Limber, 2007; Olweus, 1993; Ortega et al., 2009; Raskauskas & Stoltz, 2007; Safran, 2008; Vandebosch & Van Cleemput, 2009; Wang, Iannotti, Luk, & Nansel, 2010).

Using direct and indirect bullying as a guide, researchers have outlined a variation of four types of bullying, they are: physical, verbal harassment, social exclusion, and cyberbullying (Coloroso, 2003; Jackson, Cassidy, & Brown, 2009; Raskauskas & Stoltz, 2007; Smokowski & Kopasz, 2005; Wang & Iannotti, 2012; Wang, Iannotti, & Nansel, 2009; Williams & Guerra, 2007). Although physical bullying (i.e. hitting, punching, fighting) may typically enter an individual's thoughts when he hears the word bullying, often it is not the most prevalent of types used by bullies. Wang et al. (2010) found in their study of the various types of bullying that only 13.2% of victimization was through physical means, the second lowest among the five types studied.

The most prevalent type of victimization is verbal bullying, also referred to as emotional bullying (Wang et al., 2010; Williams & Guerra, 2007). Verbal bullying can be defined as deliberate infliction of harm to the self-esteem of an individual through insults, cursing, threatening, or expressing any form of unkind word(s) toward another individual (Hinduja & Patchin, 2009; Raskauskas & Stoltz, 2007; Wang & Iannotti, 2012). Although verbal bullying was highly prevalent within some studies, Jackson et al. (2009) found relational aggression to be the primary method that girls use to bully. Relational bullying is "characterized by psychological attacks such as humiliation and/or manipulation of relationships" (Raskauskas & Stoltz, 2007, p. 565); relationships tend to be the area of life that girls value most. Their "weapons" include rumors, gossip, and exclusion from social groups (Jackson et al., 2009).

The final type of bullying identified by researchers is cyberbullying. Even though cyberbullying has the lowest prevalence rate, 10.1% (Wang et al., 2010), there is growing research into the effects the acts of cyberbullies can have on cyber-victims. Cyberbullying will be addressed in detail later in this chapter.

Effects of bullying. There are three different groups involved in bullying. The two main individual(s) impacted by bullying are the bully and the victim; research shows that both of these groups experience several negative symptoms. The third group, bystanders, are not always around while the action takes place nor do they experience negative effects from the act; however, bystanders can play an important role in either encouraging or preventing the bullying behavior (Hawkins, Pepler, & Craig, 2001). Research identified one other category of bullies, the bully-victim. The bully-victim has experienced bullying which leads to bullying others (Diamanduros, Downs, & Jenkins, 2008). This unique group also develops adverse effects due to their connection to victimization and perpetration.

Bullies. Bullies come in all shapes and sizes. There is not a list of characteristics or a one size fits all model to identifying bullies. Individuals who bully others are not born bullies, but they are taught to bully by influences that encourage this type of behavior; some of the influences include "a children's home life, school life, and the community and culture (including media)" (Coloroso, 2003, p. 18). Even though bullies do not all look or act the same, Diamanduros et al. (2008) found that bullies desire to feel powerful, must be in control and dominate the situation, and they gain satisfaction from harming others. Coloroso (2003) identified some common traits among bullies stating that they all

1. Like to dominate other people.
2. Like to use other people to get what they want.
3. Find it hard to see a situation from the other person's vantage point.
4. Are concerned only with their own wants and pleasures and not the needs, rights, and feelings of others.
5. Tend to hurt other kids when parents or other adults are not around.
6. View weaker siblings or peers as prey.
7. Use blame, criticism, and false allegations to project their own inadequacies onto their target.
8. Refuse to accept responsibility for their actions.
9. Lack foresight – that is, the ability to consider the short-term, long-term, and possible unintended consequences of their current behavior.
10. Crave attention. (p. 20)

Each of these traits is learned behavior and has lasting effects. Students who bully others have been found to experience loneliness, low academic achievement, poor social adjustment, and a greater risk of drug and alcohol use than their peers (James, 2010; Nansel et al., 2001). Other negative factors have been identified by researchers who state that bullies have poorer psychosocial functioning than their peers and are typically aggressive, hostile, and domineering to other students (Haynie et al., 2001; Olweus, 1993). Bullies also experience a lack of emotion and sympathy when they witness others being bullied, and the bullies believe the victims deserve the negative treatment (Campbell, Slee, Spears, Bulter, and Kift, 2013). These are not exhaustive lists; bullies experience multiple adverse effects due to their actions toward others.

The act of bullying not only causes numerous emotional and psychological issues; the involvement in bullying can also be a predictor of criminal behavior both as a child and as an adult. Research has found that bullies develop rule-breaking behaviors and are involved in behaviors such as vandalism, shoplifting, frequent drug and alcohol use, crime, and truancy (Aluede, Adeleke, Omoike, and Afen-Akpaida, 2008; Haynie et al., 2001). These behaviors do not go away when a student stops bullying other students at school; in fact, Kumpulainen (2008) stated, "rarely does any single behavior predict future problems as clearly as bullying does" (p. 121). James (2010) identified a link between bullying as a child and violence in adulthood; he found that bullies exhibit aggressive behavior toward partners, use severe physical discipline with their children, and often times their children become bullies when they become school age. In fact, according to Haynie et al. (2001), "Bullies identified by 8 years of age are six times more likely to be convicted of crimes as young adults and are five times more likely to have serious criminal records by the age of 30" (p. 31).

Victims. Similar to bullies, victims also come in all shapes and sizes. There are no identifying factors that apply to all victims that could help school administrators or parents identify a victim. However, Elias and Zinsd (2003) found that bullying impacts up to 70% of a given student body. Coloroso (2003) stated about victims, "some are big, some are small; some bright and some not so bright; some attractive and some not so attractive; some popular and some disliked by almost everybody" (p. 41-42). The fact is students become victims for the sole reason that a bully decided to target them.

Victims respond to bullying in different ways. However, victimization can cause several social and emotional problems; there are also academic struggles often involved

with bullying (Rothon et al., 2011). It has already been stated that 160,000 students skip school every day due to bullying ("Bullying Statistics 2010", 2010; Murray et al., 2012). Even though skipping school creates the obvious academic struggle for victims, most of the other problems that research has identified can also have an indirect impact on a student's academic achievement. Substantial research indicates that victims suffer from anxiety, low self-esteem, and depression (Beran & Li, 2007; Diamanduros et al., 2008; Haynie et al., 2001; James, 2010; Olweus, 1993; Roland, 2002; Rothon et al., 2011; Wang et al., 2010). Researchers have also found that childhood victims continued to suffer from low self-esteem and depression into their adult years (James, 2010; Olweus, 1993).

There are other symptoms that victims experience because of being bullied. Beran and Li (2007) identified two types of problems that victims may experience: internalizing and externalizing. Internalizing problems included loneliness, sadness, insecurity, and over-compliance; impulsiveness and hyperactivity made up the externalizing category (Beran & Li, 2007). Haynie et al. (2001) said that victims also exhibit lower social skills than their non-victimized peers. They found that several victims were more withdrawn, worried, and even fearful of new situations. In their meta-analysis, Cook, Williams, Guerra, Kim, and Sadek (2010) found that a typical victim has the internalizing and externalizing behaviors, but they also "lack adequate social skills; possess negative self-related cognitions; experience difficulties in solving social problems; come from negative community, family, and school environments; and be noticeably rejected and isolated by peers" (p. 76). One final effect for victims, which often is an extreme outcome, is suicidal thoughts or attempts (Haynie et al., 2001; James,

2010; Pellegrini, Bartini, & Brooks, 1999; Roland, 2002). Surprisingly, when students were asked what effects bullying has on its victims, they identified several of the same issues outlined by researchers saying it "causes fear, reduces self-confidence, isolates students, and creates a negative reaction toward school or school duties that may even result in total absence or change of school environments" (Athanasiades & Deliyanni-Kouimtzis, 2010, p. 334).

Safran (2007) identified two categories of victims: passive and aggressive. Passive victims normally are "physically slight, unassertive, and too reticent to retaliate" (p. 59); aggressive victims tend to be hot-tempered and emotional, and sometimes this group will also lose control in response to being bullied. While most victims typically experience some type of negative effect from being bullied, some research has found that if victims defend themselves, the bullying is quickly diminished (Ortega et al., 2009). Ortega et al. (2009) stated that if victims will promptly defend themselves, there might be only minor negative effects. However, defense is difficult for most victims because of the experiences they have had with bullying and the negative effects that it had on them.

Bully-Victims. Although most students involved in bullying are either a bully or a victim, there is a small group who fall into both categories – bully-victims. Diamanduros et al. (2008) defined this group as "students who become bullies after being victimized" (p. 694). This small group of individuals, the bully-victims, is considered the most aggressive group when compared to either bully or victim groups (Salmivalli & Nieminen, 2002).

Similar to bullies and victims, bully-victims deal with negative symptoms related to their actions. This category of students typically has poor social skills, low self-

esteem, attention difficulties, and they tend to struggle academically (Cook et al., 2010; Diamanduros et al., 2008; Haynie et al., 2001; James, 2010). Depression is another consequence for bully-victims (Haynie et al., 2001), which comes as no surprise since these students were victims first. Cook et al. (2010) identified additional effects associated with bully-victims, stating they hold "significantly negative attitudes and beliefs" (p. 76) about themselves and others; not only is this group "rejected and isolated by peers but also negatively influenced by the peers with whom he or she interacts" (p. 76). Not surprisingly, bully-victims share many of the same problems that their peers experience who are bullies and/or victims.

Bystanders. The third category of individuals involved in the act of bullying is the bystanders. Howard, Landau, and Pryor (2014) identify these individuals as either passive bystanders: students who stand around and watch the bullying take place, or active interventionists: those who attempt to stop the behavior from happening. Williams and Guerra (2007) found that peers greatly influence bullying by either encouraging and validating the bully or intervening by providing acceptance, trust, and belonging to the victim. A majority of the time, peers do not intervene. Salmivalli et al. (2011) found that "by reinforcing the aggressive acts, the bystanders communicate to the bullies that (a) their behavior is acceptable, even admired, and (b) they do not have to fear retaliation from peers" (p. 674).

In a study conducted by O'Connell, Pepler, and Craig (1999), researchers videotaped children on the playground and analyzed the video of bullying behavior. The researchers found that when bullying was taking place, 75% of the time peers did not attempt to help the victim. In a similar study conducted by Hawkins et al. (2001), the

researchers also videotaped children on the playground and determined what happened when or if peers intervened. This study found that 88% of the times, during bullying episodes, peers were present, but only 19% of them intervened. Coloroso (2003) identified four reasons that peers give for not stepping in to help victims: (a) the person intervening is afraid they may get hurt; (b) they are afraid they might become a target of the bully; (c) the peer is afraid they might make the situation worse if they intervene; and (d) the bystander is unsure of the appropriate method for helping to stop the behavior.

Although a majority of the time bystanders passively watch the bullying behavior taking place, research has shown that if bystanders attempt to stop the bullying, the actions usually cease (Hawkins, Pepler, & Craig, 2001; Rothon et al., 2011; Salmivalli, Voeten, & Poskiparta, 2011). Teaching bystanders to intervene might be one answer to reducing bullying within schools. O'Connell et al. (1999) identified two components to effective interventions for peers. The first was to "raise peers' awareness of individual responsibility and increase empathy for the victim" (p. 450). The second component was encouraging children to withstand the pressure of being a part of a peer group of passive bystanders.

Gender differences. The act of bullying is not associated with only one gender. Boys and girls both participate in bullying others; however, boys tend to bully more than girls (Murray et al., 2012; Olweus, 1993). Boys are usually bullied by other boys; but girls are often the victims of both boy and girl bullies (Murray et al., 2012). Despite the frequency of bullying by each gender, there are differences among the type of bullying used to harass victims. Boys typically engage in physical or verbal bullying (Wang et al.,

2010; Williams & Guerra, 2007), while girls usually spread rumors about their victims or socially exclude them from groups (Wang et al., 2010).

Not only does gender define the form of bullying that victims must endure, there are also specific characteristics outlined for both genders. Safran (2008) stated that males use bullying to cover their insecurities, because they desire a need to establish power, and often they are bored; because of these desires boys generally bully younger or smaller boys. In addition, male bullies enjoy confrontation and are persistent and relentless in their attacks on victims. Male bullies lack empathy for others and are considered selfish as a whole. Safran (2008) did not just focus on boys when categorizing bullies; he also found that girls are quite the opposite of their counterparts. Female bullies were described as "cold and mean" (p. 54) and over-dramatic as well as subtle and sneaky when it comes to bullying. Girls tend to lengthen the bullying process for a victim by spreading the behavior out over several weeks or months.

Even though gender plays a role in the way victims are bullied, grade level also indicates when individuals are bullied. Studies have found that bullying is the worst during the seventh grade (Pellegrini et al., 1999; Safran, 2008); traditional forms of bullying decreases by nearly half from the time a student enters ninth grade until they graduate (Schneider et al., 2012). Although bulling may decrease with the grade level of a student, the difficulties that schools face concerning bullying are not going away. In fact, in a study conducted by Nickelodeon and *Talking with Kids* (2001), bullying was found to be a bigger concern among students than violence, drugs or alcohol, and sex.

Cyberbullying

Bullying has changed over the years; even though the majority of bullying is still physical or relational, a growing form of bullying has entered the cyber space. Cyberbullying, although not the most prevalent of bullying methods, is quickly becoming a new phenomenon among students. Tokunaga (2010) conducted a meta-synthesis of literature related to cyberbullying and could not find any published articles dated earlier than 2004. However, cyberbullying did not become an issue overnight. A study conducted by i-Safe (n.d.) during the 2003-04 school year found that 42% of the students said they had been bullied online. More recently, Juvonen and Gross (2008) found that 72% of students reported they experienced at least one incident of cyberbullying; however, Mishna, Cook, Gadalla, Daciuk, and Solomon (2010) surveyed students, but focused specifically on a three month period, and found that 49.5% of students indicated they had been the recipient of cyberbullying.

Although cyberbullying is considered a type of bullying, there are some distinguishing characteristics. Researchers have identified a conglomeration of seven differences between traditional bullying and cyberbullying:

- There must be some technological expertise;
- There is a degree of anonymity rather than face-to-face interaction;
- The perpetrator typically does not get to see the victim's reaction;
- The role of the bystander;
- In traditional bullying, often times the motive is gaining status by demonstrating power over another individual; however, in cyberbullying this is not the case;

- The breadth of the audience increases because technology can reach larger audiences than a small group viewing traditional bullying; and
- It is difficult to escape from the contact of a cyberbully, since technology can follow you anywhere you go. (Slonje, Smith, and Frisén, 2013; Smith & Slonje, 2010; Sourander et al., 2010)

Most, if not all, of these characteristics are distinguishing factors because of the increase in technology among today's children.

The landscape of children's lives has been transformed by technology. In fact, the increasing access that youth have to technology, and its constant use, is believed to be a contributing factor to involvement in cyberbullying whether as a bully or victim (Mishna, Khoury-Kassabri, Gadalla, & Daciuk, 2012). Hinduja and Patchin (2011) found that 91.7% of teenagers use a cell phone and 93.6% access the Internet (personal communication, April 2, 2013). Having unlimited access to technology, whether a cell phone or the Internet, provides numerous opportunities to cyberbully others or become a victim of cyberbullying. Social interactions among students have increasingly changed from direct, face-to-face, contact with another individual at school to virtual contact (Williams & Guerra, 2007). In fact, Hinduja and Patchin (2008) found "the more time respondents spent on the Internet, and the more computer proficient they were, the more likely they experienced cyberbullying" (p. 143).

With technology ever changing, the possibilities for cyberbullying are changing as well. Within the last couple of years three new smartphone applications have emerged among teenagers that might create on-going issues within the cyberbully arena. Snapchat is an application that allows smartphone users to send pictures to others for a short

amount of time–usually one to ten seconds—before it disappears from the receiver's screen permanently (Alba, 2012). While this could be positive for individuals who send pictures inappropriate in nature, the downside for cyber victims is the lack of proof that any media was actually received.

The second new application, and quite possibly one of the most dangerous, is called Cyber Dust. Cyber Dust was developed by billionaire Mark Cuban with the slogan "Every spoken word isn't recorded why should your texts be?" (Cyber Dust, n.d.). Similar to Snapchat, Cyber Dust is designed to send text messages to others, using their server, and after a pre-determined amount of time from the point the text message was read, the message is deleted off of the receiver's device and server (Baig, 2014). If a student receives these messages, like Snapchat, and the messages disappear, then the student has no proof that they received anything. Although pictures may not be a prevalent way to cyberbully others, sending degrading or rude text messages constitutes cyberbullying. Smith et al. (2008) found text messaging was not the most frequently used method of cyberbullying, even though the students thought it might be. The explanation given by the students was the lack of evidence, stating, "It's evidence as a text message, you can show it" (p. 379).

The third application, which claims to provide complete anonymity, is Yik Yak. This application does not require users to provide a name, address, or email address; in fact, they do not even create user account names (Yik Yak, 2014, para. 3). Yik Yak "allows users to post anonymous comments that can be viewed by anyone who is within 5 miles of the person who posted it" (Patchin, 2014, para. 1). Given this information, students who are reading Yik Yak at school are quite possibly reading comments by their

fellow classmates. The developers of Yik Yak were quoted in an article defining their application as, "Yik Yak allows the truth to come out unfettered by identity…Free speech without backlash from the thought police" (Wassell, 2014, para. 3). Although not all "yaks" are bullying, this method of saying what you want, hidden behind anonymity, is quite inviting to a potential cyberbully. There is one method of saving grace for school administrators; Yik Yak has provided a geo-fence for many elementary and secondary schools which blocks the app within that geo-fence area (Newcomb, 2014, para. 3). While this preventative method may help while students are at school, the cyberbullying may still take place anonymously outside of the school day.

From a bully perspective, these are great applications to harass and threaten victims; however, for the victim, parents of victims, local law enforcement, and school administration, these applications may redefine the cyberbullying landscape in the near future. There is one mechanism with smartphones that might actually help a victim—screen shots. Despite the possibilities for bullies using these disappearing pictures and text messages, they must remember that in those short seconds the individual receiving the picture or text may still be able to take a screenshot of the message, possibly providing the needed proof of cyberbullying; however, Cyber Dust now claims screen shot detection which provides notification if a screen shot is taken, "plus, no proof of who sent or received the message" (Cyber Dust, n.d.). These applications are not completely risk free for cyberbullies, but they do provide a new way for them to anonymously attack their victims and anonymity is one component distinguishing cyberbullying from traditional bullying.

Cyberbullying definition. When researchers define cyberbullying, similar to traditional bullying, there are basic and detailed definitions. For example, Ybarra and Mitchell (2004) defined internet harassment, cyberbullying, as "an overt, intentional act of aggression towards another person online" (p. 1308), Mesch (2009) said cyberbullying "is an act of aggression that can take the form of purposeful harassment" (p. 388), and Slonje, Smith, and Frisén (2013) stated, "Cyberbullying is a systematic abuse of power which occurs through the use of information and communication technologies" (p. 26). Other researchers have incorporated specific methods in their definitions of cyberbullying; for example, cyberbullying involves the use of electronics, like email and instant messaging, to engage in behaviors that threaten, offend, terrorize, intimidate, and torment other individuals (Campbell et al., 2013; Hazelwood & Koon-Magnin, 2013; Raskauskas & Stoltz, 2007; Willard, 2007). Jackson, Cassidy, and Brown (2009) defined cyberbullying "as the use of the Internet, cell phones, text messages and other technologies to send cruel, untrue, or hurtful messages about someone or to someone that causes harm" (p. 70). Li (2010) defined cyberbullying:

> the use of information and communication technologies, such as e-mail, cell phone and pager text messages, instant messaging, defamatory personal Web sites, and defamatory online personal polling Web sites, to support deliberate, repeated, and hostile behavior by an individual or group that is intended to harm others. (p. 373)

Although each definition has unique wording, they all include some form of aggression, harm, or hostility directed at another person through any type of electronic device (Kiriakidis & Kavoura, 2010; Tokunaga, 2010). Dehue, Bolman, and Völlink

(2008) identified three conditions that must be met in order for an incident to be considered cyberbullying: repeated behaviors, psychological torment, and intent to harm. These components are inherent among the previously stated cyberbullying definitions as well as Tokunaga's (2010) definition of "any behavior performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others" (p. 278). Williams and Guerra (2007) also identified these components in their definition stating cyberbullying is the willful use of technology, such as the Internet, to repeatedly and intentionally inflict harm or discomfort toward a specific person or group. Finally, Smith et al. (2008) stated, "cyberbullying is an aggressive intentional act…using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself" (p. 376).

While several of the definitions are filled with various methods and outcomes affecting the victims, there is one definition that is concise, yet encompasses the overall premise of cyberbullying. Hinduja and Patchin (2012) defined cyberbullying as "willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices" (p. 32); this definition will be the foundation for this study. Patchin and Hinduja (2010) summarized this act and all of the researchers' definitions when they identified three distinguishing characteristics of cyberbullying. First, the act of cyberbullying is a deliberate and intentional behavior that is repeatedly carried out over time. Second, the victim experiences real pain. Finally, the bully uses various electronic devices to carry out their actions. Understanding the act of cyberbullying, through each

definition, can better prepare students, parents, and school administrators for the challenging working facing students at school and at home.

Types and forms of cyberbullying. Similar to traditional bullying, Vandebosch and Van Cleemput (2009) identified two types of cyberbullying: direct and indirect. Direct cyberbullying focuses on physical actions in which the victims are directly involved; for example, property, verbal, non-verbal, and social. In the realm of cyberbullying, property action would be "purposely sending a virus-infected file" (Vandebosch & Van Cleemput, 2009, p. 1352) to another individual. Similar to verbal traditional bullying, verbal cyberbullying uses electronic devices to threaten or insult others. Non-verbal cyberbullying examples include sending threatening messages via text message or sharing obscene pictures with the victim or a group of individuals. Finally, the social element of direct cyberbullying, similar to exclusion in traditional bullying, is online exclusion. Indirect cyberbullying might take place without the victim even noticing that something has happened against them, at least not immediately noticing. A few examples of indirect cyberbullying, according to Vandebosch and Van Cleemput (2009) include sharing others' email information, pretending to be someone you are not in an effort to deceive the victim, using email or text messages to spread gossip, and voting on a "defamatory polling website" (p. 1352). Each of these examples of indirect and direct cyberbullying shows similar characteristics to traditional bullying; however, these actions can all be done electronically and with some anonymity for the cyberbully.

In addition to direct and indirect cyberbullying, Willard (2007) identified eight different forms of cyberbullying. These different forms identify additional ways that perpetrators might use in cyberbullying others. These eight forms include the following:

1. Flaming – online fights using electronic messages with angry and vulgar language.
2. Harassment – repeatedly sending nasty, mean, and insulting messages.
3. Denigration – sending or posting gossip or rumors about a person to damage his or her reputation or friendships.
4. Impersonation (also known as Masquerading) – pretending to be someone else and sending or posting material to get that person in trouble or danger or to damage that person's reputation or friendships.
5. Outing – sharing someone's secrets or embarrassing information or images online.
6. Trickery – talking someone into revealing secrets or embarrassing information, then sharing it online.
7. Exclusion – intentionally and cruelly excluding someone from an online group.
8. Cyberstalking – repeated, intense harassment and denigration that includes threats or creates significant fear. (pp. 1-2)

In addition to these eight types, Slonje, Smith, and Frisén (2013) identified three other forms of cyberbullying that impact victims: (a) sexting is "the circulation of sexualized images on mobile phones or the Internet without the person's consent" (p. 28); (b) trolling describes individuals who persistently post "abusive comments on a website" (p. 28); (c) griefing describes "harassment of someone in a cyber game or virtual world" (p.

28). Each of these forms provides various ways for individuals to suffer at the hands of cyberbullies, plus they open up numerous possibilities for inflicting hurt and pain that traditional bullying cannot offer.

While there are similarities between cyberbullying and traditional bullying, research studies also identify differences. Beran and Li (2007) said one difference allows for harassment through a computer or phone screen, not face-to-face. Hinduja and Patchin (2008) stated cyberbullying adds an element of anonymity providing a sense of safety and security by hiding behind a computer screen to bully another person. In addition to this perceived anonymity, "there are not any regulatory bodies or authorities policing conversations and interactions in cyberspace" (Patchin & Hinduja, 2010, p. 615) unlike with traditional bullying where individuals can see the act of bullying take place and can intervene to prevent further actions. Also, cyberbullying provides an easier thought process for engagement because perpetrators can hide behind a malicious text message or email (Patchin & Hinduja, 2010). These actions are a few of the distinguishing differences between bullying and cyberbullying. However, there are some similarities between the negative effects that cyberbullying can have on both the bully and victim; these impacts will be discussed in a later section.

Method of cyberbullying. The definition of cyberbullying considered not only the reason for the action (i.e. to frighten, threaten, or harm), but also specified, whether specifically or generically, the methods that cyberbullies use against their victims. Unlike traditional bullying, thanks to technology, cyberbullying methods constantly leave the victim within reach of the cyberbully. Cassidy et al. (2009) found that cyberbullying is typically a reaction to something that happened between two individuals at school but

became online exchanges once the individuals left school; in fact, their study revealed that 64% of their respondents indicated their personal experience with cyberbullying began at school but continued online once at home.

Numerous methods can be used to engage in cyberbullying. Strom and Strom (2012) identified "texting, instant messaging, chat rooms, blogs, online voting booths, and email" (p. 48) as methods that cyberbullies use to inflict fear, helplessness, and humiliation against cybervictims. Smith and Slonje (2010) identified seven types of cyberbullying broken into two categories: mobile phone and Internet. Mobile phone included bullying through a phone call (i.e. silent calls), text messaging, and pictures or video clips. Internet methods included email, chat-rooms, instant messaging, and websites (i.e. creating a website that shows abusive information about a specific individual). While these are not exhaustive lists of methods used for cyberbullying, they do encompass a broad range of actions that rely on technology to bully individuals.

Several studies have found that many of the stated methods are common among the respondents of each survey. Text messaging, including picture or video clip bullying, is a common form of cyberbullying, and although it does not have complete anonymity, it is an easy method to bully another individual (Patchin & Hinduja, 2010; Raskauskas & Stoltz, 2007; Smith et al., 2008; Vandebosch & Van Cleemput, 2009). Text messaging also allows the bully to spread hatred, threats, and fear toward an individual while also including a group of friends in the same message. Email is also a common form of cyberbullying. Li (2007) found that 22.7% of victims had been bullied via email; in the same study only 9% of bullies reported using email as their method of choice. Mishna et al. (2010) found the same discrepancy among victims and bullies; victims stated that

email cyberbullying occurred 25% of the time, but the bullies stated they used email only 10% of the time to bully another individual. In one study the percentage was even higher showing that email was used 37% of the time (Cassidy et al., 2009). Another method used by individuals to engage in cyberbullying is the use of instant messaging. Several studies have found that instant messaging is highly prevalent. Kowalski and Limber (2007) found instant messaging to be frequently reported by victims and bullies agreed that this method was most often used. Mishna et al. (2010) found that nearly 60% of cyberbullying was due to instant messaging.

The method of cyberbullying is not limited to the few specific methods mentioned; any available technology can be used by bullies to reach their targets. Regardless of the method, victims have identified different bullying behavior that caused them hurt, and even fear. Some of these practices included threatening or harassing behavior (Cassidy et al., 2009; Slonje et al., 2013; Vandebosch & Van Cleemput, 2009), name calling (Mishna et al., 2010), making fun or telling jokes (Patchin & Hinduja, 2010; Slonje et al., 2013), spreading rumors (Slonje et al., 2013; Vandebosch & Van Cleemput, 2009), and using the victim's online identity to pretend to be them (Cassidy et al., 2009). These practices can be hurtful and incite fear on the victim. Cassidy et al. (2009) found that a small percentage of victims wanted to engage in bullying against the perpetrator.

Finally, given the methods and practices used against victims, anonymity is not necessarily as prevalent as one might think. Early on in cyberbullying research, Ybarra and Mitchell (2004) found that 84% of cyberbullies knew their victims, whereas 69% of victims claimed they did not know who bullied them. A few years later, Li (2007) found that nearly 41% of victims said they did not know who was bullying them. This statistic

has continued to decline with one study finding that only 11% of victims stated the bully was unknown (Mishna et al., 2010). In fact, Mishna et al. (2010) found in their study that friends were the most common perpetrators of cyberbullying and 89% of victims reported that they knew the identity of the bully. This shift in anonymity could be due to various factors, but one could be the increase in technology use by children and teenagers.

Effects of cyberbullying. Similar to traditional bullying, cyberbullying also has a negative impact on victims; however, bullies also experience negative effects both short- and long-term. Even though cyberbullies experience effects due to their actions, a majority of them do not believe they impact victims' lives; in fact, 57% did not even think they were being mean to others (Campbell et al., 2013). Cassidy et al. (2009) found that 46% of victims stated that cyberbullying was just part of life; while 32% believed it was just words in cyberspace. No matter the thought processes of each group, research is clear on the negative effects that bullying can have on both the victim and the bully.

Bullies. Cyberbullies engage in the act of perpetration for various reasons, yet their victims often believe they understand the bully's intentions. Li (2010) identified several of these purposes for why individuals engage in cyberbullying: cyberbullies consider their behavior to be "cool"; cyberbullies feel insecure so they must pick on others; these individuals are angry or jealous; some believe it is done for fun; cyberbullies are mean or bored; these individuals have family problems that cause them to act like they do; and a majority of victims believed the action is used as a defense mechanism. Despite the reasoning, the individuals who participate in cyberbullying often suffer from different negative effects.

Cyberbullies show "higher levels of stress, depression, and anxiety" (Campbell et al., 2013, p. 623). Low self-esteem has been shown to be correlated with cyberbullying offenders (Patchin & Hinduja, 2010; Ybarra & Mitchell, 2004). Ybarra and Mitchell (2004) stated that bullies are aggressive toward their peers and adults; while Slonje, Smith, and Frisén (2012) found cyberbullies were less remorseful than traditional bullies. This might be from lack of face-to-face interaction with the victims and not being able to see the reactions or hurt they have caused. Kowalski, Giumetti, Schroeder, and Lattanner (2014) stated that if the perpetrator could see the reaction of the victim, it might deter further acts of bullying. Campbell et al. (2013) said that cyberbullies showed a lack of empathic awareness and moral engagement. Although many of these negative characteristics may only last during the bully's childhood, there are some long-term effects that research has seen in adulthood. Ybarra and Mitchell (2004) identified three of these effects: alcohol abuse, crime, and delinquency.

Research shows there may be life-long impacts on individuals who participate in cyberbullying. There are, however, some warning signs that might help parents or school administrators identify potential cyberbullies. Diamanduros et al. (2008) identified six warning signs: (a) quickly closes the program in use or switching screens entirely if someone walks by the computer; (b) becomes extremely upset if they are not allowed to use the computer; (c) stays up all hours of the night using the computer; (d) excessively laughs while using the computer; (e) avoids conversations related to what they are doing on the computer; and (f) has multiple online accounts or uses an account that is not theirs (p. 695). Understanding each of these indicators may be the difference in preventing

cyberbullying and eliminating the potential negative effects that cyberbullying may have on both the bully and the victim.

Victims. While it may be surprising that bullies experience negative effects associated with their actions, it may be of little surprise that victims deal with numerous negative effects from being cyberbullied. For some victims, being cyberbullied may not appear to bother them, but these actions may subconsciously create some negative emotions such as anger, sadness, frustration, or embarrassment (Hinduja & Patchin, 2011; Mishna et al., 2010). These emotions may seem minor at first, but they may lead to more serious issues for victims.

Mesch (2009) found that victims displayed a low commitment toward their schoolwork; they were involved in the consumption of alcohol and smoking; and about one third of their subjects reported psychological stress due to online bullying. Ybarra and Mitchell (2004) found that most victims typically are more introverted and show signs of sensitivity, anxiousness, extreme caution, loneliness, and they withdrawal from the situation. Similar to traditional bullying, victims also suffer from low self-esteem (Campbell et al., 2013; Hinduja & Patchin, 2011; Patchin & Hinduja, 2010; Völlink et al., 2013; Ybarra & Mitchell, 2004). While all of the effects listed cause serious short and long-term issues for victims, the act of cyberbullying may also have a devastating impact on some victims through suicidal ideation and even the act of suicide itself (Bauman et al., 2013; Hinduja & Patchin, 2011; Li, 2010; Litwiller & Brausch, 2013; Luxton et al., 2012; Schnieder et al., 2012; Slonje et al., 2013; Staugger, Heath, Coyne, & Ferrin, 2012).

In addition to psychological or mental concerns, victims also experience school-related consequences from being cyberbullied. Ybarra, Diener-West, and Leaf (2007) found that victims, when compared to those not bullied online, were assigned more detentions, were suspended more often, skipped school frequently, and were more likely to carry a weapon to school. Hinduja and Patchin (2011) also identified school related concerns stating that victims have academic difficulties at school; they experience assaultive conduct, carry weapons to school, and abuse substances. These negative effects do not stop when they graduate from high school. Long-term effects for victims that carry over into adulthood include depression and low self-esteem (Ybarra & Mitchell, 2004).

In an article published in the *Vanderbilt Law Review*, King (2010) stated, "The negative effects of cyberbullying are often more serious and long lasting than those of traditional forms of bullying" (p. 850). She provided three reasons: (a) technology provides a veil of anonymity that allows users to say things to others they may not typically say face-to-face; (b) with the click of the mouse information can reach a larger group of individuals; and (c) for a victim, the actions of a cyberbully linger due to hurtful comments remaining online indefinitely (King, 2010). Despite these negative effects, there are some cyberbully victims warning signs that may help parents and school faculty or administration identify individuals potentially being bullied online. These warning signs include anxiousness when a text message or email appears, suddenly stopping using the computer or technology, appearing upset or depressed when done using the phone or computer, demonstrating an uncomfortable demeanor about going to school, avoiding conversations about what they were doing on the computer, and becoming withdrawn

from friends and family (Diamanduros et al., 2008, p. 695). Although identifying bullies and helping them discontinue their actions related to cyberbullying is critical, understanding and identifying victims can also be a vital step in helping overcome the issues that develop related to experiences with online bullying.

Gender/Age differences. Like traditional bullying, gender does not play a large role in predicting cyberbullying. Research shows that both genders equally and actively engage in the act of cyberbullying (Kowalski & Limber, 2007; Li, 2007; Mishna et al., 2010). Wang et al. (2009) found that boys were slightly more likely to be a cyberbully than were girls, but other research found that girls were slightly more likely than boys to be cyberbullies (Jackson et al., 2009). Despite the equality among gender as bullies, there is a distinct difference between which gender falls prey to cyberbullying. Some studies have found that girls are more inclined to be victims of cyberbullying over boys (Kowalski & Limber, 2007; Li, 2007; Mesch, 2009; Schneider et al., 2012; Smith et al., 2008; Wang et al., 2009).

Studies have determined which method of cyberbullying each gender typically practices. Boys who engage in cyberbullying will call others names or threaten individuals while online (Mishna et al., 2010). Similarly, Rivers and Noret (2010) found that male victims receive threatening and offensive text messages and emails from perpetrators. In contrast, girls were more likely to cyberbully others by spreading rumors (Mishna et al., 2010), creating a social issue for the victim; from a victim perspective girls were cyberbullied most through name calling and methods that caused unpopularity among peers (Rivers & Noret, 2010). Various reasons were given as to why both genders participate in cyberbullying ranging from the victim upset them during the day to just

because it is "fun," although when gender is considered, an overwhelming number of girls versus boys (Jackson et al., 2009) cyberbully because they do not like the victim. Both male and female cyberbullies claim that other students may be chosen as victims based on specific attributes including "special needs, academic abilities, un-popularity, physical appearance, physical and mental disabilities, unfashionable clothing and ethnicity" (Cassidy et al., 2009, p. 389).

Several research studies have analyzed cyberbullying from a gender perspective, but few have focused on the age of students involved in cyberbullying. Unlike traditional bullying which decreases as students progress through school (Schneider et al., 2012), the majority of research suggests that cyberbullying increases with age (Hinduja & Patchin, 2008; Kowalski & Limber, 2007; Mishna et al., 2010; Smith et al., 2008; Vandebosch & Van Cleemput, 2009; Ybarra & Mitchell, 2004). Smith et al. (2008) found older students are more likely to cyberbully others. This particular study found that only 8% of seventh graders cyberbullied others, yet by the time a student reached eighth and ninth grade the percentage increased to 12%. This figure increased even more for students in grades tenth and eleventh reaching as high as 23% of students cyberbullying others. Schneider et al. (2012) contradicted the results of Smith et al., finding that cyberbullying slightly decreased, 3.8%, from when a student entered high school and when they graduated. No matter the gender or age of the perpetrators, cyberbullying is an increasing issue among students.

Prevention. School administrators, faculty, and parents all want to answer the overriding question of how they can prevent cyberbullying. One of the problems with preventing cyberbullying is the lack of research specifically focused on cyberbullying

prevention (Snakenborg, Van Acker, & Gable, 2011). Another problem with this question is the phenomenon cannot be prevented if no one knows that cyberbullying is taking place. Often, victims do not tell adults they are being threatened or harassed; however, Li (2007) found that the majority of respondents believed that if they told an adult about the situation they would attempt to stop the cyberbullying. Hinduja and Patchin (2013) found that students believed that their school, or parents, would take the incident seriously and even punish such behaviors; however, the respondents also stated they would not report if they were victims or perpetrators. Other research studies have found that students often will not report the incident to school officials (Cassidy et al., 2009; Hinduja & Patchin, 2013; Li, 2010; Mishna et al., 2010). Nearly 80% of victims said they would not report being cyberbullied; in the same study only 15% said when they did tell a school official about the incident, the situation actually got better (Li, 2010).

Why do students not inform parents or school officials when they are being cyberbullied? To answer this question, research has identified several reasons respondents gave for not confiding in school officials regarding their cyberbullying experiences: (a) they were afraid of retribution from the cyberbully; (b) they felt it was not the schools problem but the students to deal with; (c) they did not believe the school would be able to stop it even if they knew; (d) they thought their parents might restrict technology access; (e) they did not want other student to label them as a 'rat' for telling on another student; (f) they were afraid school personnel would not believe them or understand what they were dealing with; (g) they were afraid they would get into trouble; and (h) they believed they needed to learn to deal with the situation on their own (Cassidy

et al., 2009; Li, 2010). If schools are going to counteract these reasons, students must understand the importance of telling an adult about the cyberbullying incident.

When asked what solutions schools could offer to help prevent cyberbullying, students said: (a) use anonymous tip lines for students to report an incident to school officials; (b) develop and implement programs that teach students about cyberbullying and its effects; and (c) punish students who cyberbully others (Cassidy et al., 2009; Jackson, 2009). Hinduja and Patchin (2013) asserted, "the disciplinary efforts of school districts should also be supported by strong and detailed policies outlining what online behaviors are and are not acceptable, and what penalties will follow if the policy is contravened" (p. 76). From a school administration perspective, a prevention program should include an anti-bullying policy that would focus on media use at school and media abuse as well as curricular and awareness-raising activities designed to educate students on cyberbullying (Slonje et al., 2013; Snakenborg et al., 2011). Diamanduros et al. (2008) stated that the first step in developing a cyberbullying prevention plan is to conduct research in the school in order to understand the involvement of students. Although the research devoted to successful cyberbullying prevention plans is limited, there have been some specific components suggested to include in these plans. They include the following:

- students have the right to feel safe at school,
- definition of cyberbullying,
- details on how cyberbullying may occur,
- how often cyberbullying takes place,
- the impact the action has on perpetrators and victims,

- understanding that text messages and emails can be traced even if they have been deleted,
- legal ramifications,
- the importance of reporting incidents to an adult,
- the importance of keeping personal information private, and
- internet safety (Couvillon & Ilieva, 2011; Diamanduros et al., 2008)

Schools should not be the only group of stakeholders involved in preventing cyberbullying; parents and students must also be actively involved (Couvillon & Ilieva, 2011; Diamanduros et al., 2008). There are several actions students can take to curb cyberbullying actions against themselves. Parris, Varjas, Meyers, and Cutts (2012) suggested that students should increase their security measures as well as overall online awareness in order to prevent cyberbullying. Some specific acts include knowing safe websites to visit, developing strong passwords, and limiting the amount of identifying information posted online. Other prevention strategies for students may include blocking screen names, emails, or phone numbers, unfriending people on social media, and send a warning to the website host regarding potential cyberbullying (Juvonen & Gross, 2008; Snakenborg et al., 2011). Although not all cyberbullying will be prevented, if all stakeholders can develop strategies and policies to deal with potential cyberbullying, the overall impact that the act can have on students may be reduced.

Legislation

Preventing cyberbullying, or any bullying, has become a topic among school administration, faculty, and even parents. While implementing prevention programs has proven successful, at least in the arena of traditional bullying, school policies and state

legislation must play a large part in reducing all types of bullying. However, there currently are no federal statutes that explicitly prohibit cyberbullying or bullying among students (McCallion & Feder, 2013). In fact, the federal government leaves it up to each state to implement an anti-bullying statute.

The state of Georgia was the first to adopt an anti-bullying law in 1999 (Weaver, Brown, Weddle, & Aalsma, 2013). Three years later there were 15 state laws specifically addressing bullying among students (Limber & Small, 2003). Despite the minimal number of state laws during this time, nine of the states defined the specific behaviors that constituted bullying (Limber & Small, 2003). By the year 2007, a total of 35 states had enacted laws designed to address bullying (Srabstein, Berkman, & Pyntikova, 2008). As of April 2014, 49 states had adopted anti-bullying laws; Montana is the only state without an anti-bullying statute (Hinduja & Patchin, 2014). Sacco, Silbaugh, Corredor, Casey, and Doherty (2012) found some differences among several of the state statutes adopted over the past decade. For example, 41 states specifically define bullying behaviors within the definition, while five states allow the state department of education to decide, and two states allow complete autonomy allowing local school districts to develop their own definition within policy. Only 32 states require school districts to develop procedures for investigating incidents of bullying and 17 states require staff to report incidents of bullying that they witness (Sacco et al., 2012).

With states continually working on anti-bullying legislation, The Anti-Defamation League (2009) identified 12 elements for comprising a comprehensive anti-bullying law:

1. Require each school district to adopt an anti-bullying policy.
2. A strong definition of intimidation, harassment, and bullying is necessary.

3. Enumerated characteristics must be included in any definition of bullying.
4. "Electronic communications" must be included in any definition of bullying.
5. Off-campus cyberbullying, which affects and interferes with a school's educational mission, must be covered by the Act.
6. In school reporting: a process within the school for reporting and investigating bullying must be established.
7. District reporting: a systematic process by which the school reports to the school district, and the school district reports to the State, must be established.
8. Establish consequences for unacceptable activity.
9. Mandate training for faculty and students.
10. Include counseling for victims and perpetrators.
11. Give notice to parents and guardians.
12. The State Board of Education should play a significant role. (pp. 4-7)

Based on these components, states are beginning to update their laws to include cyberbullying. There currently are 20 states that include the term "cyberbullying" in their state laws while 48 states also, or only, include the term "electronic harassment" (Hinduja & Patchin, 2014). The state of Oklahoma was identified by Hazelwood and Koon-Magnin (2013) as one of four states with the most comprehensive cyber harassment/cyber stalking legislation, and Oklahoma is one of only two states that indicate anonymity among message communication constitutes a cyber-crime.

Even though the federal government has not developed a federal statute to govern bullying or cyberbullying, the most often used federal statute voiced by cyberbullying perpetrators is infringement on their First Amendment rights. Restricting a student's free

speech, or expression, is a key issue that school administrators face when dealing with cyberbullying. The landmark case that first addressed this issue of free speech for schools was *Tinker v. Des Moines Independent Community School District* (1969) in which the Supreme Court held that schools could not punish a student's free speech unless that speech causes a disruption of the educational process at school. Several years later the Supreme Court reaffirmed the *Tinker* decision in the *Bethel School District v. Fraser* (1986) case; the Court reminded schools they have the right to restrict behavior and speech that is considered highly offensive or threatening to others. In addition to limited free speech restrictions for students, schools also may be held liable for not protecting students from possible infliction of harm (*Davis v. Monroe County Board of Education,* 1999). Additionally, the Supreme Court ruled in 2007 that students might be disciplined for actions that take place off-campus if the activity was a school event (*Morse v. Frederick*, 2007). Each of these cases provided opportunities for schools to exercise discipline on students. Hinduja and Patchin (2011) stated:

> Educators have the authority to restrict expressions and discipline students for inappropriate speech or behavior that occurs at school if that speech causes a substantial disruption at school (*Tinker*), interference with the rights of students (*Tinker*), or is contrary to the school's educational mission (*Fraser* and *Morse*). Further, if that speech has created a hostile environment for a student, school personnel have the responsibility to do so [restrict or discipline] (*Davis*). (p. 73)

Most of these cases have been applied to various in-school situations, including face-to-face bullying. In recent years they have also been used as a way for school administrators to address cyberbullying as well. The over-riding problem with

cyberbullying is that most incidents occur away from school and except for the previously mentioned *Morse* case; most of the other rulings have been rendered from an on-campus situation. Hinduja and Patchin (2011) identified the U.S. District Court case *Beussink v. Woodland R-IV School District* as one of the first major cases dealing with online harassment by a student. Similar to *Tinker* or *Fraser*, *Beussink v. Woodland R-IV School District* (1998) rendered a decision that schools must be able to demonstrate that the off-campus action provided a substantial disruption to school activities or the school environment. As seen through several court cases, the United States legal system supports First Amendment rights of free expression; "certain expressions, however, are not protected and allow intervention and discipline, including those that substantially or materially disrupt learning; interfere with the educational process or school discipline; use school-owned technology to harass; or threaten other students or infringes on their civil rights" (Hinduja & Patchin, 2011, p. 76).

States must consider the opinions in these court cases when developing their laws; yet, more importantly, school districts must understand state statutes so they can develop local school policies. The same 49 states with state legislation against bullying also require schools to develop policies that will govern bullying within their particular districts (Hinduja & Patchin, 2014). United States Secretary of Education Arne Duncan (2010) addressed school bullying policies stating,

> Though laws are only a part of the cure for bullying, the adoption, publication, and enforcement of a clear and effective antibullying policy sends a message that all incidents of bullying must be addressed immediately and effectively, and that such behavior will not be tolerated. (para. 6)

Hinduja (2012) stated that most states require a comprehensive policy in each district, with those policies generally include the following elements:

- requirement to add "cyberbullying" or "electronic bullying" to current anti-bullying policies;
- provision of specific graduated consequences and remedial actions for cyberbullying;
- provision to allow administrators to take reasonable action when off-campus actions have affected on-campus order;
- requirements to develop new investigative, reporting and disciplinary procedures in cyberbullying cases; and
- mandate that schools create and implement prevention programming (such as Internet safety, ethics, etiquette training, and curricula). (para. 2).

As previously stated, one of the critical components for district policies includes specific consequences for the bullying actions. These consequences may begin with a student conference discussing the action taken and the negative impact their actions had on others. If the action continues, the consequence may gradually increase and may involve guidance counseling, parental contact, loss of school privileges, detentions, alternative placement, and even suspension (Hinduja, 2012). Developing policies in line with state statutes and federal precedence as well as proper implementation will help school officials manage the negative impact that cyberbullying can have on both students and the climate of a school environment.

Summary

Schools are faced with challenging times when it comes to bullying and cyberbullying. Although traditional bullying has been a concern among schools, parents, and students, the emergence of technology has paved the way for cyberbullying to become a growing concern as well. The prevalence of cyberbullying may not have reached the percentages of traditional bullying, but the impact the act has on victims is equally as great. The methods in which victims are cyberbullied are numerous and constantly change with new technology. No longer are students merely physically or verbally attacked while at school; these actions now follow them home providing a reality that never ends for the victim. In fact, Kowalski, Morgan, and Limber (2012) stated that traditional bullying often leads to cyberbullying. Identifying the prevalence of cyberbullying among individual schools may be a pivotal step in determining the most effective way to decrease cyberbullying from taking place among school age children.

CHAPTER III

METHODOLOGY

Introduction

Students from all across the globe are bullied each day in numerous ways. Some individuals face physical torment while others deal with verbal and social anguish at the hands of others; yet in recent years, with the use of technology, a new type of bullying is becoming prevalent: cyberbullying. Cyberbullying has been defined as "willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices" (Hinduja & Patchin, 2012, p. 32).

This research study examined this phenomenon to determine if cyberbullying is a cause for concern among the students within a rural school district in northeastern Oklahoma. The data gathered identified the number of students who engage in cyberbullying and how many are victims of the act. Demographic variables were gathered to analyze which variable(s), if any, are common among offenders and victims. Ultimately, this study may help administrators obtain a better grasp on cyberbullying in order to develop ways to better teach their students the negative effects that cyberbullying may have on individuals.

Research Design

This study adds to the growing body of research on cyberbullying. The research was exploratory in nature, designed to examine the prevalence of cyberbullying among middle and high school students. In addition, the study explored whether demographic variables might be useful in determining whether a student has a propensity to be a cyberbully or victim. The study used gender, grade level, socioeconomic status, and academic special services to analyze if any variable, or combination of variables, prominently reveals the presence of cyberbullying for either the bully or the victim. Finally, information was gathered to identify key methods used by bullies against victims as well as to identify methods victims feel are most commonly used to harass them.

A survey was used to collect data from a large group of students at a single middle school and high school in northeastern Oklahoma. Cross-sectional survey data, gathered at a specific time, was used to examine the self-reported experiences with cyberbullying among these students. Data was gathered through a nonprobability sample, specifically purposive sample; individual responses will remain anonymous. Data from the survey and subsequent data analysis determined statistical significance using $\alpha = .05$.

Setting

The research for this study took place within a public school district in a rural community, north of the second largest city in Oklahoma. This district was selected based on access since the researcher had a former working relationship with the administration, parents, and students within this district and a vested interested in the wellbeing of the student body. Although the district size is ranked in the top 12% out of

531 statewide districts, its rural location makes it more representative of the majority of districts within the state.

In 2010, the population of this community was over 26,000 patrons. The school district consists of five school sites; construction on the fifth school building was recently completed. The district consists of three elementary buildings with each building housing specific grades, one middle school, and one high school, with a total district student count, as of October 2014, of 2,532 students. In the state of Oklahoma, this district is classified by the Oklahoma Secondary Schools Activities Association (OSSAA) as a 5A district with an Average Daily Membership (ADM) over 700, (OSSAA, 2014). From an ethnicity perspective, the district is 62.2% Caucasian; there is also a large Native American population, comprising 29.8% of the student body. Finally, the school district reported that 51% of students qualify for free or reduced lunch, which is often used as an indicator of lower socioeconomic status.

Participants

Research suggests that traditional bullying increases during the middle school years (Haynie et al., 2001; Nansel et al., 2001), yet decreases during high school (Nansel et al., 2001; Schnieder et al., 2012). Even though studies indicate traditional bullying declines as a student progresses through high school, research has found cyberbullying increases with age (Hinduja & Patchin, 2008; Kowalski & Limber, 2007; Mishna et al., 2010; Smith et al., 2008; Vandebosch & Van Cleemput, 2009; Ybarra & Mitchell, 2004). This study looked at all sixth through twelfth grade students to determine cyberbullying prevalence. Based upon the district accreditation report from October 2014, which is the state required child count and determines state funding for a district, the sample

population included 1,302 students spanning the sixth through twelfth grade years. There was minimal disparity between genders with males making up 50.7% and females 49.3% of this population. The demographic characteristics from this report are highlighted in Table 1.

Table 1

Demographic Characteristics of the Sample Population

	6th	7th	8th	9th	10th	11th	12th	Total	Percent
Male	82	99	85	110	94	98	92	660	50.7%
Female	88	75	97	129	93	75	85	642	49.3%
African American	2	2	1	7	3	3	4	22	1.7%
Asian	0	0	0	1	1	0	0	2	0.2%
Caucasian	98	105	120	145	122	121	117	828	63.6%
Hispanic	3	9	2	9	4	5	2	34	2.6%
Native American	65	53	57	72	55	42	53	397	30.5%
Two or more races	2	5	2	5	2	2	1	19	1.5%
Total by grade	170	174	182	239	187	173	177	1302	

At the time of the survey, the middle school had 532 students across grades six, seven, and eight. There was one principal and one assistant principal as well as one counselor, 40 teachers, and an academic advisor who also has the role of Bullying Prevention Coordinator. Within the middle school, the seventh and eighth grade classes are the same size, each making up 33.6% of the student body with the sixth grade comprising 32.7%. Based on the accreditation report 94.7% of the middle school student body is either Caucasian or Native American.

The high school at the time of the survey contained four grades, nine through twelve with 728 students. In addition to one principal, there are two assistant principals as well as two counselors and 49 teachers. The ninth grade class is the largest, making up 30.7% of the high school student body while the eleventh grade class is the smallest

comprising 21.6%. Similar to the middle school, the high school student body is comprised of 93.7% Caucasian and Native American students based on the district accreditation report.

The enrollment numbers presented in Table 1 changed from the date the district filed the accreditation report and the date the survey was conducted. This discrepancy is common among communities and school districts, since families' move out of or into town during the year, students are suspended or drop out of school, or students transfer to neighboring districts, among other reasons that account for a change in student enrollment. Table 2 compares the difference between accreditation enrollment and number of enrolled students on the day the survey was administered.

Table 2

Enrollment Comparison of the Sample Population

	October 2014	May 2015	% Change
6th	170	174	+2.35%
7th	174	179	+2.87%
8th	182	179	-1.65%
9th	239	224	-6.28%
10th	187	178	-4.81%
11th	173	157	-9.25%
12th	177	169	-4.52%
Total	1302	1260	-3.23%

Surveys were completed by 81.5% (n=1,027) of the students, 77.8% (n=414) were collected from the middle school and 84.2% (n=613) from the high school. After review of each submitted survey, 13 surveys were removed from the data analysis due to lack of information. Nine surveys provided no demographic information and four surveys provided only demographic information and nothing additional. After removing these 13 surveys, there were 405 usable middle school surveys and 609 usable high school

surveys; the combined participation rate was 80.4% (n=1,014). Usable surveys were those in which a participant included demographic information and some type of victimization or offending data; these surveys provided the information used for the study.

Procedures

The school district's superintendent provided verbal and written consent for this research project to be conducted (see Appendix B). Further, this researcher received study approval from the dissertation committee and the Oklahoma State University Institutional Review Board (IRB) (see Appendix C). Parents were notified in writing from the researcher, one week prior to selected survey dates, through a letter approved by the superintendent with an explanation of the research (see Appendix D). The letter also explained the method for refusing participation for their student(s) in the cyberbullying survey. With IRB approval, passive parental consent was used; not a single parent requested non-participation. In addition to a written letter, the researcher also received permission from the district superintendent to post a summary of the survey on the district website prior to conducting the research (see Appendix E).

Dates for administering the survey at each school were decided based on conversations with both building principals. The desire of this researcher was to conduct the survey late in the spring semester to ensure faculty and staff that instruction time would not be interrupted until state testing had concluded. The middle school survey was conducted on May 13, 2015, and the high school survey on May 14, 2015. Determining a time during the school day to administer the survey was also decided by the researcher and building administrators. Although the researcher felt asking English teachers to

administer the survey to all of their classes would be the most efficient way to reach almost every student since all students are required to take an English class every year they are in school, the building administrators decided to have surveys administered at one time during their respective survey days.

The middle school principal decided that students would complete the survey during their T.E.A.M. time. T.E.A.M. stands for Teacher as Educators, Advisors, and Mentors; all students are assigned a T.E.A.M. teacher, and the whole school meets in these groups at an assigned time each month. The day of administration at the middle school consisted of an all-school talent show and afternoon eighth grade picnic; therefore, the principal called an all-school T.E.A.M. meeting at the start of the school day so students could complete the survey. Some T.E.A.M. leaders were not able to meet with their students due to talent show preparations, so other leaders administered surveys to multiple T.E.A.M.s.

The high school principal also made the decision, after communicating with his faculty, to have all students sitting in a second hour class to complete the survey at one time school-wide. Three groups of students that were not immediately available during second hour: absent students, a small number of students off-site completing an Advanced Placement exam, and students involved in morning dual enrollment at the local community college or technical school. However, the building administrator did allow students to be called out of class after returning to school from dual enrollment classes to complete the survey. These students were administered the survey by the researcher as a group in the high school commons area.

Prior to the assigned survey date, the high school administrators provided the researcher enrollment numbers broken down by second hour teacher, while the middle school administrator provided an estimated number of students on each T.E.A.M. These numbers allowed surveys and student assent letters to be divided based on classroom enrollment during the two assigned administration times. The exact number of each item was placed into a large manila envelope and handed out during teacher training. A faculty meeting was held each morning at the respective buildings, which allowed the researcher to explain the process for administering the survey, and teachers were able to conveniently collect the student assent letter and survey instrument. Teachers were asked to refrain from moving around the room to guarantee student anonymity and instructed to have students place their survey in the provided envelope to safeguard each student's anonymity.

On the specified day, but prior to administering the survey, students were provided written copies and administering teachers orally read an assigned script to their class explaining the nature of the study and the desire for each student to openly share their experiences through the survey (see Appendix F). Part of the script included a definition of cyberbullying so students auditorily heard the definition even though it was written on the survey. As part of the instructions, students received student assent information (see Appendix G) and were given the option to refuse participation by not completing the survey. Students who declined participation sat quietly while others completed the survey. Students were encouraged to speak with parents, teachers, school counselors, or administrators concerning their experiences with cyberbullying. After the surveys were completed, they were collected and sealed in the provided envelope.

Participant selection. The participants for this research study were selected as a purposive sample from a local school district in northeastern Oklahoma. The researcher had a former relationship with the administration, parents, and students within this district; therefore, gaining access to the students for participation was feasible. Students enrolled in grades six through twelve participated in the study. The decision to start with sixth grade was based on the fact that these students are beginning middle school in a new building with older kids; they are becoming of age where they carry a cell phones; and this age group begins to regularly use technology for school work and social interaction. The researcher's relationship with the district and community allowed him, in selecting these students, to help both the district and community with what research shows is a growing problem.

Data collection. The survey instrument featured 28 questions including four demographic questions focused on determining gender, grade level, socioeconomic status (determined by free or reduced lunch participation), and academic special services, as well as two questions identifying whether students carry a cell phone to school and have access to the Internet at home. The cyberbullying questionnaire focused on two main categories: cyberbullying victimization and cyberbullying offending. The victimization section consisted of 11 questions, with 10 questions focused on offending. A majority of questions concentrated on the 30-day period previous to survey administration.

Twenty-one questions focused on cyberbullying experiences; each question based on a Likert-scale with answers focused on the frequency of experiences. Each question had five response choices – never, once, a few times, several times, and many times. This survey was designed to obtain individual responses to many of the items. The

survey designer developed a cumulative scale for the nine questions within the victimization and offending sub-sections of the survey. The survey instrument yielded both ordinal and nominal data.

Instruments. The Cyberbullying and Online Aggression Survey Instrument (Hinduja & Patchin, 2015) was used to survey the students for this study. The developers of this instrument, Dr. Justin W. Patchin and Dr. Sameer Hinduja, are professors of Criminal Justice at the University of Wisconsin-Eau Claire and Florida Atlantic University, respectively. They also serve as Co-Directors of the Cyberbullying Research Center. The Cyberbullying Research Center "is dedicated to providing up-to-date information about the nature, extent, causes, and consequences of cyberbullying among adolescents" (Cyberbullying Research Center, 2015, para. 1). In addition, Drs. Patchin and Hinduja have disseminated their cyberbullying research through books and articles, presentations on prevention and school-based discipline as well as testimony as expert witnesses in cases involving cyberbullying (Cyberbullying Research Center, 2015). Since 2007, this particular instrument has been used in five different studies comprised of over 12,000 students ages 11-18, attending over 90 different schools. Permission for use was obtained from the instrument developers at the Cyberbullying Research Center (see Appendix H).

The Cyberbullying and Online Aggression Survey Instrument was developed to study students' involvement, whether as a victim or offender, with cyberbullying. The full survey is comprised of 49 questions divided between two distinct categories – Cyberbully Victimization and Cyberbully Offending. The questions focus on experiences associated with specific methods of cyberbullying as well as a group of

questions that help identify specific online environments used for cyberbullying. Each survey question is based on a Likert scale with five answer options ranging from "never" to "many times." Of the 49 questions, 46 focus on the previous 30-day period. Sample victimization questions include:

"In the last 30 days, I have been cyberbullied."

"In the last 30 days, I have been cyberbullied in these ways…someone posted mean or hurtful comments about me online."

"In the last 30 days, I have been cyberbullied in these ways…someone posted a mean or hurtful picture online of me."

"In the last 30 days, I have been cyberbullied in these ways…someone threatened to hurt me through a cell phone text messages."

Similar questions are listed under the offending section of the survey with few minor word changes. For example, instead of the wording "I have been cyberbullied" the words are changed to "I have cyberbullied others." In the victimization section of the survey, the questions include "someone posted" followed by specific methods of cyberbullying; however, the offender section states, "I posted" and lists the specific methods used.

Although the survey includes 49 total questions, 28 of the questions focus specifically on different online environments used by cyberbullies. Permission was granted from the instrument developers to remove these questions for this particular study. These eliminated 28 questions would have provided insight into online environments; however, this information is not necessary to answer the research questions. Therefore, the emphasis of this study was on the remaining 21 questions that focused on methods used to cyberbully others. Within these 21 questions, 18 questions

have a scale construction to determine level of involvement in cyberbullying as an offender or victim. Instrument reliability and validity provided in the following section is based on the 21 questions that will be used by the researcher. In addition, the developers state a clear definition of cyberbullying so respondents will have a clear understanding when determining their actions or involvement in cyberbullying.

Psychometric properties. In addition to the survey instrument administered to students, the developers shared the instruments' psychometric properties focusing on three specific areas: internal reliability, factor analysis, and inter-item correlations. The psychometric properties focused solely on the 18 questions divided equally between the Cyberbully Victimization Scale and the Cyberbullying Offending Scale. The internal reliability is represented by Cronbach's Alpha and for victimization ranges from 0.905 – 0.935 and the alpha for offending ranges from 0.935 – 0.969 (Hinduja & Patchin, 2015); both are exemplary ratings (Robinson, Shaver, & Wrightsman, 1991).

The factor analysis shows loading values for each individual question followed by an Eigenvalue range demonstrating all questions loaded onto one component. Within the Cyberbullying Victimization Scale, the nine questions have individual loadings ranging from "I have been cyberbullied" at 0.686 – 0.744 to "Someone threatened to hurt me through a cell phone text message" at 0.808 – 0.855. The victimization Eigenvalue ranges from 5.51 – 6.40 with 61.22 – 71.52% of variance (Hinduja & Patchin, 2015). The Cyberbullying Offending Scale shows slightly higher loadings and Eigenvalue range. These specific nine questions have calculated loadings ranging from "I cyberbullied others" at 0.537 – 0.762 to "I posted a mean or hurtful picture online of someone" at

0.919 – 0.949. The offending Eigenvalue range of 6.31 – 7.34 has a variance range of 70.08 – 81.57% (Hinduja & Patchin, 2015).

When focusing on the inter-item correlations, Robinson, Shaver, and Wrightsman (1991) stated that an average of 0.30 or higher constitutes an exemplary measure. The victimization scale shows correlations ranging from the low end of 0.30 – 0.58 to 0.83 – 0.92, while the offending scale shows similar correlations ranging from 0.45 – 0.70 to 0.90 – 0.94 (Hinduja & Patchin, 2015). Finally, the survey developers included a scale construction in order for researchers to determine the amount of involvement, for each respondent, in cyberbully victimization and offending. Within each category are two types of scales: variety and summary. The variety scale recodes answer responses of "never and once" a 0, while "a few times, many times, every day" responses receive a 1, thus providing a range of 0 – 9 for each category. The summary scale assigns a numerical value to each answer option ranging from 0 – 4 with a sum response ranging from 0 – 36, with higher scores representing more involvement in cyberbullying (Hinduja & Patchin, 2015).

In addition to the questions included in the Cyberbullying and Online Aggression Survey Instrument, the researcher added six questions to obtain identifying factors of participants; although factors were correlated with participant survey responses, student identity remained anonymous. Four of these questions allowed the researcher to obtain demographic variable information. Gender and grade level were two of the desired variables. A third variable focused on socioeconomic status by asking whether a student received free or reduced lunch. Qualifying for free or reduced lunch is determined by income qualifications set forth by the United States Department of Agriculture Food and

Nutrition Service (Tribiano, 2014). The final demographic variable added a special education component to the data analysis. Determining whether a student is on an individualized education plan (IEP) or receiving special services through a 504 plan creates an additional variable to help predict types of students who might bully or are victims. This particular question is more difficult to ask and still maintain student anonymity; therefore, this question asked whether a student received special services or special needs classes. The desire was for students on an IEP or 504 plan to identify themselves through this question. Despite the research surrounding specific attributes, the present research study did not include research on sexual orientation.

The remaining two questions asked respondents whether they carried a cell phone to school and if they had access to the Internet while at home. If students did not carry a cell phone or Internet access, their ability to cyberbully others or become victims of cyberbullying is decreased, not eliminated, but reduced due to lack of technology access. The answer to these two questions might provide insight to the experiences of students with unlimited or minimal access to technology.

Data analysis. This study had two analytical parts. The first part was exploratory and descriptive in nature identifying, among specific demographic variables – grade level, gender, socioeconomic status, and special education – the prevalence of cyberbully victimization and cyberbullying offending. These descriptive results provided school administrators the statistical information required to shape potential programs or training in order to prevent further cyberbullying within their schools.

The second part of the study examined the effects of demographic variables, or a combination of variables, with cyberbully victimization and offending. Although various

research studies found that gender does not play a part in predicting cyberbully offending (Kowalski & Limber, 2007; Li, 2007; Mishna et al., 2010), gender had been found to help predict cyberbully victimization (Kowalski & Limber, 2007; Li, 2007; Mesch, 2009; Schneider et al., 2012; Smith et al., 2008; Wang et al., 2009). Several research studies agree that cyberbullies are not gender biased; however, other studies have found that older students become more involved in cyberbullying (Hinduja & Patchin, 2008; Kowalski & Limber, 2007; Mishna et al., 2010; Smith et al., 2008; Vandebosch & Van Cleemput, 2009; Ybarra & Mitchell, 2004). While studies exist dedicated to their impact on cyberbullying, the other two variables have minimal research focus providing an opportunity to determine if cyberbully prevalence is affected by each variable.

The first research question, "What is the frequency of cyberbully victimization and cyberbully offending among middle and high school students?" was analyzed using descriptive analysis. This question used frequency of answers ranging from never to many times, in order to present how prevalent, among each demographic variable, student participation is in cyberbully victimization and cyberbully offending. Separate analysis examined offending and victimization based on answers to the nine questions that focused on the previous 30-day time period. The dependent variables were cyberbullying victimization and cyberbully offending and the independent variables for each were the stated demographic variable.

The second and third research questions, "Is there a significant difference in how students rate cyberbully victimization in their schools according to their gender, socioeconomic status, special services, and grade level, or combinations of these factors?" and "Is there a significant difference in how students rate cyberbully offending

in their schools according to their gender, socioeconomic status, special services, and grade level, or combinations of these factors?" were analyzed using one-way and two-way Analysis of Variance (ANOVA). The dependent variables were victimization scores and offending scores, which is the sum of responses on the nine designated victimization questions and offending questions. The sum score produces a range of 0 to 36. The independent variables are the four stated demographic variables. Three of the four independent variables are dichotomous; therefore, gender was coded 1=male and 0=female. Socioeconomic status was based on free or reduced lunch; thus, 1=free or reduced and 0=not free or reduced. The special services variable was based on students' identifying themselves in special education based on receiving special services or taking special needs classes; therefore, this variable was coded 1=special education and 0=regular education. For the grade level variable, the analysis reported data for each grade level and also included grade level to make a comparison with another variable.

As a guide to answering research questions two and three, six sub-questions were included for analysis. One-way ANOVA results were analyzed by separately using each of the three dichotomous variables across each grade level, as well as, by building and an overall data output. The two-way ANOVA results used a combination of factors to determine statistical significance, specifically gender and one other variable: grade level, socioeconomic status or special services. Each sub-question compared mean differences of victimization scores and offending scores with each of the described analysis.

The final research question, "Is there a relationship between cyberbully victimization and cyberbully offending among the students?" was analyzed using a bivariate correlation. This analysis investigated whether there was a significant

association between victimization scores and offending scores among the population sample.

Ethical Considerations

Permission to conduct this research study was received by the Institutional Review Board of Oklahoma State University and from the superintendent of the selected school district. Students who respond to the survey will be doing so anonymously, and the researcher worked with each building administrator to ensure that the greatest number of students participated in the survey. In addition, conducting this survey in a way that was minimally invasive to both students and teachers was of utmost importance to the education taking place within those school walls. A timed trial on survey administration and completion was conducted using a sixth grader and an eighth grader. The time it took to read the directions and complete the survey was approximately three and a half minutes. This study was conducted at no cost to the school district; the researcher absorbed all financial responsibility including printing parent letters, surveys, and any licensing agreements.

Parents were notified of the survey by letter and given the opportunity to refuse student participation. In the letter, parents were asked to contact the researcher by email or cell phone in order to decline participation for their student; however, the researcher received no contact from a single parent. Prior to students completing the survey, the administering teachers reminded students that the survey was anonymous and reminded the students not to write their names on the survey. As soon as the surveys were completed, students placed their surveys in the provided envelope or the administering teacher collected the surveys placing them in the manila envelope, sealing the envelope.

In an effort to maintain anonymity teachers were asked to not look through the surveys to determine if a name was written on the survey. The researcher took the time to look for names and either erased the name, blacked out the name, or voided the survey; however, no surveys were voided. These envelopes were delivered to the principal's office immediately after surveys were completed.

During the day the surveys were administered, envelopes containing completed surveys were stored in the principal's office; in addition the researcher was on hand throughout the day to assist teachers with any questions related to the survey or procedures, and to ensure all students were provided an opportunity to complete the survey. At the end of the day, the researcher took completed surveys to his home to conduct data analysis. Results were shared with district and building administrators once analysis had been completed.

Completed surveys were first manually entered into Microsoft Excel software to provide easier sorting capabilities. Next the data was imported into SPSS software for data analysis. Once data had been extracted from the paper copies, all surveys were placed in a plastic bin and will be kept in the office of the researcher for three years after the completion of the study. Output data and results were saved to a flash drive and secured in the home safe of the researcher. The researcher is the only individual with access to the complete data output; however, results will be shared with district administration.

Limitations of Study

The limitations of this study deserve some consideration by the researcher. The first limitation is the specific geographic location where the survey was conducted.

Because this particular study focuses on one specific school district, the responses are restricted to the students of only one district, which does not allow a comparison of data between other students or schools around the state or nation.

Technology access by the students surveyed is a potential limitation. The assumption exists that all students have access to technology, specifically cell phones or Internet access. If students have minimal or no access to technology, experiences with cyberbullying may be limited. For example, if a student does not own a cell phone and does not have a home computer, that student may not know if potential cyberbullying has taken place against them or others, thus limiting their experiences and impacting the answers provided on the survey. With that said, there will be students who have not experienced cyberbullying for one reason or another; unlike students without technology access, this group may still be able to express within their survey times that they visually witnessed cyberbullying through social media or other avenues. Although the number of students without technology access could be minimal, it still offers a potential limitation.

Time is another limitation for this study. The majority of questions on the survey instrument focus on the previous 30-day period. This time frame limits potential experiences with cyberbullying to a specific 30-day period based on when the survey is administered. It is possible, during this specific time, respondents may not have experienced cyberbullying. In conjunction there is a limitation that respondents were honest in responses to cyberbullying experiences.

Summary

This exploratory study focused on the prevalence of cyberbullying victimization and offending among sixth through twelfth graders at a school district in northeastern

Oklahoma. The purposive sample of approximately 1,260 students were invited to answer questions on the Cyberbullying and Online Aggression Survey Instrument to help administrators identify the prevalence of cyberbullying and cyberbully victimization among their student body. In addition, specific demographic variables were used to predict whether certain students are more likely to be cyberbullies or cyber victims. These specific variables include grade level, gender, socioeconomic status, and academic special services.

Following the data analysis, results will be shared with school administrators so they will know if cyberbullying is widespread among their student body. In addition, the results may help both district and building administrators identify if certain trainings or teachings can help prevent cyberbullying within their schools. If deemed appropriate, results will also be shared with faculty, staff, and parents to begin collaboration among stakeholders toward preventing cyberbullying.

CHAPTER IV

FINDINGS

Introduction

Results from the Cyberbullying and Online Aggression Survey, which provided usable data from 1,014 students, are first presented using descriptive statistics. Frequencies of student experiences for both victims and cyberbullies are presented, including specific methods utilized by cyberbullies and identified by victims. Next, analysis was conducted comparing cyberbully victimization scores between gender, grade level, socioeconomic status, and special services. These same variables are also presented in comparison with cyberbullying offending scores. Finally, a correlation analysis determines if there is a potential relationship between offending and victimization.

Descriptive Statistics

Research question one asked: What is the frequency of cyberbully victimization and cyberbully offending among middle and high school students? This question addresses prevalence among victims and offenders based on cumulative scores.

Demographic frequencies. To enable readers' understanding of survey participants, demographic information is presented based on the six questions included in

the study. Table 3 presents the complete demographic data including a breakdown between middle school (MS) and high school (HS) frequencies.

Table 3

Demographic Characteristics of the Participants

	Overall		Middle School		High School	
	n	***%n***	***n***	***%n***	***n***	***%n***
Carries a cell phone	923	91.0%	339	83.7%	583	95.9%
Does not carry a cell phone	89	8.8%	64	15.8%	25	4.1%
Did not provide answer	2	0.2%	2	0.5%	0	0.0%
Has internet at home	917	90.4%	357	88.1%	559	91.9%
Does not have internet	93	9.2%	45	11.1%	48	7.9%
Did not provide answer	4	0.4%	3	0.7%	1	0.2%
Male	518	51.1%	205	50.6%	312	51.3%
Female	489	48.2%	195	48.1%	294	48.4%
Did not provide answer	7	0.7%	5	1.2%	2	0.3%
Receives free or reduced lunch	370	36.5%	152	37.5%	217	35.7%
Does not receive free or reduced lunch	637	62.8%	247	61.0%	390	64.1%
Did not provide answer	7	0.7%	6	1.5%	1	0.2%
Receives special services or classes	97	9.6%	38	9.4%	59	9.7%
Does not receive special services or classes	901	88.9%	359	88.4%	543	89.3%
Did not provide answer	16	1.6%	9	2.2%	6	1.0%

Two of the questions focused on technology usage determined by whether participants carry a cell phone and have access to the Internet at home. Overall 91.0% (n = 923) of participants said they carried a cell phone to school and 90.4% (n = 917) who have Internet access at home.

Of the 1,014 survey participants, 99.3% (n = 1,007) identified their gender; there were 48.2% (n = 489) female participants, and 51.1% (n = 518) male participants. Although not all students completed a survey, the gender statistics are in line with the reported breakdown by the district in Table 1 (see Chapter 3, p. 56). In addition to gender demographics, 36.5% (n = 370) stated they receive free or reduced lunch, while

9.6% (*n* = 97) self identified as a student receiving special education services or classes at school.

The final identifying variable was grade level. There were 1,260 students enrolled in grades six through twelve on the day the survey was administered; 80.5% (n = 1,014) of students provided usable data for the study. Table 4 shows the number of participants in each grade and compares that data to the overall enrollment. The final column of Table 3 provides a percentage of how many students completed a survey in each grade compared to the overall enrollment of each grade level enrollment. These data are also divided among building groups.

Table 4

Grade Level Breakdown

Grade	*n*	Enrolled	% Collected
6th	119	174	68.4%
7th	127	179	70.9%
8th	159	179	88.8%
9th	189	224	84.4%
10th	136	178	76.4%
11th	151	157	96.2%
12th	132	169	78.1%
Missing	1		
Middle School	405	532	76.1%
High School	608	728	83.5%
N	1014	1260	80.5%

Victim frequencies. The 1,014 participants answered ten questions focused on victimization with answer options ranging from 0 to 4. The response categories were never (0), once (1), a few times (2), several times (3), and many times (4). Question 2 asked, "In my lifetime I have been cyberbullied?" This question yielded a mean of 0.76 (*SD* = 1.134) with 38.6% (*n* = 391) who stated they had been victims at least once during

their lifetime. The grade level comparisons for lifetime and 30-day victimization are represented in Table 5.

Table 5

Lifetime and 30-day Victimization at Least Once across Grade Level

	Lifetime		30-day	
Grade	***n***	**%*n***	***n***	**%*n***
6th	36	30.2%	11	9.3%
7th	42	33.1%	13	10.2%
8th	58	36.4%	16	10.0%
9th	79	41.8%	26	13.8%
10th	56	41.5%	16	11.8%
11th	60	39.7%	14	9.3%
12th	59	44.7%	14	10.6%

When question 2 responses were separated into middle school and high school categories, middle school students reported less victimization ($M = 0.66$, $SD = 1.088$) than did the high school students ($M = 0.83$, $SD = 1.159$). Of the middle school students, 33.6% ($n = 136$) felt victimized at least once during their lifetime; however, this statistic increased for high school students with 41.9% ($n = 255$) identifying as victims. This question was then analyzed for each grade level. The results showed an increase in reported victimization from sixth grade through ninth grade before seeing a gradual decline in grades 10 and 11; however, twelfth grade participants reported the highest percentage of victimization (44.7%, $n = 59$).

Question 3 of the survey focused on the 30 days prior to administration and indicated fewer participants (10.8%, $n = 110$) identified themselves as victims tabulating a victimization mean of 0.19 ($SD = 0.632$). During this period, the high school students reported a slightly higher victimization mean of 0.21 ($SD = 0.658$) compared to the middle school mean of 0.17 ($SD = 0.593$). Based on the 30-day period, 11.4% ($n = 70$) of

high school students reported experiencing cyberbullying at least once, which was marginally higher than the middle school, which reported 9.8% (n = 40). Grade level comparison showed similarities to lifetime victimization outcomes.

Based on gender, socioeconomic status, and special services, means and standard deviations of victimization were calculated. These results are presented in Table 6 broken down between responses for a lifetime and 30-day period.

Table 6

Lifetime and 30-day Victimization Descriptives Based on Demographic Variables

	Lifetime		**30-day**	
	M	***SD***	***M***	***SD***
Male	0.57	1.038	0.16	0.630
Female	0.95	1.189	0.22	0.632
Free or Reduced	0.86	1.169	0.21	0.601
Not Free or Reduced	0.70	1.105	0.18	0.634
Special Education	1.26	1.308	0.45	0.923
Not Special Education	0.71	1.096	0.16	0.578

These same variables are shown in Table 7 with percentages based on individuals victimized at least once or more than one time.

Table 7

Lifetime and 30-day Victimization at Least Once and More than Once

	Lifetime		30-day	
	n	***%n***	***n***	***%n***
Male				
At least once	153	29.5%	41	7.9%
More than once	88	17.0%	24	4.7%
Female				
At least once	233	47.7%	67	13.7%
More than once	152	31.0%	28	5.7%
Free or Reduced				
At least once	162	43.8%	48	12.9%
More than once	96	25.9%	21	5.7%
Not Free or Reduced				
At least once	226	35.4%	60	9.4%
More than once	145	22.9%	31	4.9%
Special Education				
At least once	58	59.8%	22	22.7%
More than once	37	38.1%	14	14.5%
Not Special Education				
At least once	326	36.1%	85	9.4%
More than once	202	22.4%	38	4.2%

A comparison of gender shows 47.7% (n = 233) of female respondents indicated they were victims, a higher percentage than reported by male participants (29.5%, n = 153). The same was true comparing the 30-day period; 13.7% (n = 67) of female students reported being victims with 7.9% (n = 41) making the same claim. The socioeconomic demographic displays 43.8% (n = 162) of students who indicated they received free or reduced lunch reported being victims of cyberbullying; the victimization scale yielded a lifetime victimization mean of 0.86 (SD = 1.169). Participants who identified themselves as special education students also showed higher victimization (59.8%, n = 58) compared to individuals not taking special services classes.

For further consideration, the data was calculated to compare these same demographics between the middle school and high school participants. Table 8 displays this data.

Table 8

Lifetime and 30-day Victimization by Building Level

	Lifetime				**30-day**			
	HS		**MS**		**HS**		**MS**	
	n	**%*n***	***n***	**%*n***	***n***	**%*n***	***n***	**%*n***
Male	101	32.3%	52	25.4%	25	8.0%	16	7.8%
Female	152	51.7%	81	41.5%	44	15.0%	23	11.7%
Free or Reduced	102	46.7%	60	39.4%	31	14.2%	17	11.2%
Not Free or Reduced	153	39.2%	73	29.7%	39	10.0%	21	8.6%
Special Education	34	57.6%	24	63.2%	11	18.6%	11	28.9%
Not Special Education	218	40.1%	108	30.2%	57	10.5%	28	7.8%

Although the number of respondents is small, middle school students who identified as recipients of special services ($n = 38$) showed higher lifetime victimization mean, 1.38 ($SD = 1.341$), than did the high school students within the same category ($M = 1.19$, $SD = 1.293$, $n = 59$). In addition, the same was true for the 30-day period. Middle school respondents yielded a mean of 0.56 ($SD = 0.998$) and the high school respondents returned a smaller mean of 0.38 ($SD = 0.875$).

The reverse held true for students with a lower socioeconomic status based on the individuals who acknowledged receiving free or reduced lunch. Over a lifetime, high school students returned a higher number of victimization incidents than did middle school students ($M = 0.93$, $SD = 1.192$, $n = 218$ and $M = 0.77$, $SD = 1.134$, $n = 152$ respectively). This same pattern held true for question 3 with high school responses

generating a mean of 0.24 (*SD* = 0.650) for the high school compared to a middle school mean of 0.16 (*SD* = 0.521).

Finally, building comparisons between genders indicates high school females reported more lifetime victimization (*M* = 1.04, *SD* = 1.203, *n* = 294) than did high school males (*M* = 0.62, *SD* = 1.058, *n* = 313) and both male participants (*M* = 0.50, *SD* = 1.005, *n* = 205) and female participants (*M* = 0.82, *SD* = 1.158, *n* = 195) from the middle school. The results for gender victimization within question 3 also showed that high school female students reported higher harassment (*M* = 0.25, *SD* = 0.705) than did the other compared groups. However, unlike the lifetime scale, all other groups represented similar means: high school males (*M* = 0.16, *SD* = 0.599), middle school males (*M* = 0.17, *SD* = 0.676), and middle school females (*M* = 0.17, *SD* = 0.495). Table 7 shows these data based on the number of cyberbully victims within all three discussed demographics as well as presenting both middle school and high school demographics.

Offender frequencies. Similar to questions 2 and 3, the survey also inquired about participants' involvement in cyberbullying as offenders. Question 12 prompts, "In my lifetime, I have cyberbullied others" and question 13 asks, "In the last 30 days, I have cyberbullied others." On the same 0 to 4 scale, question 12 returned an overall mean of 0.36 (*SD* = 0.786) with 22.4% (*n* = 227) of students reporting they had cyberbullied others at least one time during their lifetime. The grade level comparisons for reported lifetime and 30-day offenders is displayed in Table 9.

Table 9

Lifetime and 30-day Offending at Least Once across Grade Level

	Lifetime		30-day	
Grade	***n***	**%*n***	***n***	**%*n***
6th	19	16.0%	4	3.4%
7th	23	18.1%	2	1.5%
8th	24	15.1%	5	3.2%
9th	44	23.3%	9	4.8%
10th	31	23.0%	2	1.5%
11th	39	25.8%	16	10.4%
12th	46	34.8%	7	5.3%

Analyzing the lifetime offender data between the middle school and high school, the high school presented a higher mean of 0.45 (*SD* = 0.877) with 26.3% (*n* = 160) of students reporting involvement as a cyberbully at least once; the middle school students returned a mean of 0.23 (*SD* = 0.603) with 16.3% (*n* = 66) admitting to cyberbullying others at least once in their lifetime. Finally, analysis of reported offending between each grade levels showed an increase in mean scores beginning with 0.23 (*SD* = 0.605) for sixth grade and rising up to 0.64 (*SD* = 1.012) for twelfth grade students. The only drop in a mean score happened between 7th and 8th grade (*M* = 0.27, *SD* = 0.686 and *M* = 0.21, *SD* = 0.529 respectively).

Statistics gained from question 13 responses show over the 30-day period only 4.4% (*n* = 45) of respondents have cyberbullied other individuals. Comparing data for this question between high school and middle school students, the high school mean of 0.12 (*SD* = 0.578) is higher than the middle school mean of 0.04 (*SD* = 0.293). In fact, only 2.7% (*n* = 11) admitted to being a cyberbully among the middle school sample while 5.6% (*n* = 34) of the high school sample made the same claim. When comparing 30-day offenders among grade levels, analysis showed several increases and decreases. In fact

besides the increase between eighth grade (M = 0.04, SD = 0.222) and ninth grade (M = 0.11, SD = 0.547), every other grade level jump shows either an increase or decrease beginning with a sixth grade mean of 0.04 (SD = 0.241). The highest mean for this question is for eleventh grade students reporting a mean of 0.19 (SD = 0.657).

The data was also analyzed to view offending responses with the other demographic variables. The means and standard deviations for these three variables are presented in Table 10.

Table 10

Lifetime and 30-day Offending Descriptives Based on Demographic Variables

	Lifetime		**30-day**	
	M	***SD***	***M***	***SD***
Male	0.34	0.779	0.10	0.547
Female	0.39	0.794	0.07	0.412
Free or Reduced	0.36	0.789	0.10	0.532
Not Free or Reduced	0.37	0.783	0.08	0.397
Special Education	0.44	0.946	0.26	0.837
Not Special Education	0.35	0.760	0.07	0.431

Gender, socioeconomic status, and special service variables are displayed in Table 11 with percentages based on number of individuals who cyberbully others at least once and more than once during a lifetime and 30-day period.

Table 11

Lifetime and 30-day Offending at Least Once and More than Once

	Lifetime		30-day	
	n	***%n***	***n***	***%n***
Male				
At least once	107	20.7%	24	4.6%
More than once	47	9.0%	14	2.8%
Female				
At least once	119	24.3%	20	4.1%
More than once	56	11.4%	8	1.6%
Free or Reduced				
At least once	84	22.7%	18	4.8%
More than once	39	10.6%	6	1.6%
Not Free or Reduced				
At least once	142	22.3%	26	4.1%
More than once	64	10.1%	16	2.6%
Special Education				
At least once	24	24.7%	11	11.4%
More than once	11	11.3%	7	7.2%
Not Special Education				
At least once	198	22.0%	32	3.6%
More than once	91	10.1%	15	1.7%

Using the data to compare each of the other three demographic variables shows that based on the lifetime question, females reported a mean of 0.39 (*SD* = 0.794) for cyberbully engagement whereas the males generated a mean of 0.34 (*SD* = 0.779) based on question 12. The same held true based on the question 13 with a female mean of 0.10 (*SD* = 0.547) compared to 0.07 for males (*SD* = 0.412). Despite the higher mean score for the 30-day period, more male students reported being cyberbullies (24; 4.6%) than did female respondents (20; 4.1%). The socioeconomic demographic showed very similar results between students identified as receiving free or reduced lunch and their counterpart, students not receiving free or reduced lunch. In fact, 22.7% (*n* = 84) of those receiving free or reduced lunch reported cyberbullying other individuals compared to

22.3% (*n* = 142) who do not receive this benefit at school. Finally, when analyzing student responses based on receiving special services, over the 30-day period a greater number of special education students have participated in cyberbullying activities. In fact, special education students generated an offending mean of 0.26 (*SD* = 0.837) compared to students not in special education classes whom reported a mean of 0.07 (*SD* = 0.431).

A comparison of cyberbully involvement based on gender, socioeconomic status, and special services among middle school and high school individuals are presented in Table 12.

Table 12

Lifetime and 30-day Victimization by Building Level

	Lifetime				**30-day**			
	HS		**MS**		**HS**		**MS**	
	n	**%n**	**n**	**%n**	**n**	**%n**	**n**	**%n**
Male	76	24.3%	31	15.1%	22	7.0%	2	1.0%
Female	85	29.0%	34	17.4%	12	4.1%	8	4.1%
Free or Reduced	61	28.0%	23	15.1%	14	6.4%	4	2.6%
Not Free or Reduced	100	25.6%	42	17.1%	20	5.1%	6	2.5%
Special Education	17	28.8%	7	18.4%	8	13.6%	3	7.9%
Not Special Education	142	26.2%	56	15.6%	25	4.6%	7	1.9%

Further dissection of the data shows high school special education students report greater involvement as cyberbullies. The 59 special education students rendered a mean of 0.53 (*SD* = 1.023) when answering the lifetime offender question and a 30-day mean of 0.34 (*SD* = 0.993). This group is higher than the 38 middle school respondents within the same category who yielded a mean of 0.32 (*SD* = 0.809) for question 12 and a mean of 0.14 (*SD* = 0.481) for question 13.

Similar to special services statistics, socioeconomic status also showed that high school respondents admitted to being cyberbullies more than did middle school students. When considering the lifetime responses to cyberbullying the high school students had a mean of 0.47 (*SD* = 0.875) compared to a middle school mean of 0.22 (*SD* = 0.600). The 30-day means paralleled the lifetime responses with the high school showing a higher mean than the middle school (*M* = 0.11, *SD* = 0.496 and *M* = 0.03, *SD* = 0.161 respectively).

Finally, the gender analysis represents both male and female high school students engaged in more cyberbullying activity than their middle school counterparts. Furthermore, high school females admit to more cyberbully activity with a mean of 0.48 (*SD* = 0.866) on question 12, but high school males produced the largest 30-day involvement with a mean of 0.15 (*SD* = 0.652). Within the middle school data, female students admitted to engaging in cyberbullying more frequently over a lifetime and 30-day period (*M* = 0.26, *SD* = 0.648 and *M* = 0.05, *SD* = 0.265 respectively) than did male students (*M* = 0.20, *SD* = 0.549 and *M* = 0.03, *SD* = 0.312 respectively).

Method comparison. The survey instrument included questions, based on the 30-day period prior to administrating to the students, designed to identify methods used by offenders and against victims. There were eight questions based on victimization and eight questions based on offending. Similar to other discussed questions, answer options included numerical values ranging from 0 to 4 indicating frequency of method use. The data indicated that Question 8, "Someone spread rumors about me online," was reported by those who were bullied as the top online method used against victims (*M* = 0.49, *SD* = 1.007); however, this same question was not reported by the most students

who were victims of cyberbullying. In fact, 24.5% (n = 245) of the victimization sample reported being cyberbullied by rumors. Analysis indicated that Question 4, "Someone posted mean or hurtful comments about me online," was used by 25.9% (n = 259) of the sample yet was second based on reported frequency (M = 0.46, SD = 0.914). In many instances, the top three frequently used methods were also the top three reported by the most victims sometimes in a different order. For example after Question 8 and Question 4, Question 9, "Someone threatened to hurt me through a cell phone text message," was the third highest frequently used online method (M = 0.43, SD = 0.917). Question 9 also was the third most used method as reported by 23.1% (n = 230) of victims. Regardless of the demographic descriptive, in most cases Question 8 (online rumors) was reported as the most frequently used against victims, yet the results of Question 4 (online comments) indicate more of the sample had been cyberbullied in this manner. A complete table displaying the percentage of individuals who have been victims of cyberbullying based on all eight methods is presented in Appendix I.

Survey results based on offender responses were fairly consistent between reported frequency and number of self-reported cyberbullies. Offenders indicated on Question 14, "I posted mean or hurtful comments about someone online," that this online method was used more frequently than any other provided method yielding a mean of 0.26 (SD = 0.697). This same question also was reported by 16.4% (n = 164) of all offenders as the top used method to cyberbully others. The second largest method used by cyberbullies was Question 19, "I threatened to hurt someone through a cell phone text message," with a mean of 0.22 (SD = 0.691), followed by Question 20, "I threatened to hurt someone online," which yielded a mean of 0.17 (SD = 0.634). This pattern held true

when analyzing the number of offenders who participated in each online method with 12.6% (n = 126) admitting use with Question 19 (text message) and 8.7% (n = 88) reporting through Question 20 (online threats) as the third most used online method to cyberbully others. With minimal variation, these three questions were leading methods among each descriptive statistics analyzed. Percentages for all eight offending questions are presented across all variables and the overall sample (see Appendix J for the complete table).

Victimization Scores

The survey developers specified nine questions related to victimization with answer options calculating the cyberbullying victimization score. Questions 3 through 11 made up the victimization score. A summary scale was used to determine the involvement of cyberbullying as a victim; higher scores equal higher involvement. Each question was based on the 30 days prior to the survey being administered. Participants were provided five answer choices with values ranging from 0 to 4; therefore, the summary scale for victimization has a range of 0 to 36 based upon individuals responses. Using the victimization scores of the sample will answer the second research question: Is there a significant difference in how students rate cyberbully victimization in their schools according to their gender, socioeconomic status, special services, or grade level, or combinations of these factors? As a support for answering this research question, six sub-questions guided the analysis. Statistical significance was determined using $\alpha = 0.05$.

Gender and grade level. A one-way between subjects ANOVA was conducted comparing the cyberbully victimization score with gender among each grade level. Table 13 displays the ANOVA results for each grade level.

Table 13

Analysis of Variance for Victimization Scores and Gender among Grade Level

Grade	Source	SS	df	MS	F	Sig.
6th	Between Groups	0.752	1	0.752	0.043	0.836
	Within Groups	2040.827	117	17.443		
	Total	2041.580	118			
7th	Between Groups	12.645	1	12.645	0.768	0.383
	Within Groups	2026.427	123	16.475		
	Total	2039.072	124			
8th	Between Groups	30.091	1	30.091	1.439	0.232
	Within Groups	3219.519	154	20.906		
	Total	3249.609	155			
9th	Between Groups	205.500	1	205.500	4.714	0.031*
	Within Groups	8108.437	186	43.594		
	Total	8313.936	187			
10th	Between Groups	93.046	1	93.046	4.286	0.040*
	Within Groups	2887.354	133	21.709		
	Total	2980.400	134			
11th	Between Groups	22.346	1	22.346	1.223	0.271
	Within Groups	2723.058	149	18.276		
	Total	2745.404	150			
12th	Between Groups	18.843	1	18.843	0.904	0.343
	Within Groups	2730.675	131	20.845		
	Total	2749.519	132			

*$p < 0.05$

Although not all grade levels recorded statistical significance related to gender, a statistically significant effect among gender on cyberbully victimization scores was present for 9th grade victims, $F(1, 186) = 4.714$, $p = 0.031$, and 10th grade victims, $F(1, 133) = 4.286$, $p = 0.040$.

An additional one way between subjects ANOVA was conducted on the entire sample comparing gender and victimization scores as well as an analysis of middle school gender and high school gender with victimization scores. The outputs for these results are also displayed in Table 14.

Table 14

Analysis of Variance for Victimization Scores and Gender for the Sample and Buildings

	Source	SS	df	MS	F	Sig.
Whole Population	Between Groups	292.191	1	292.191	12.168	<0.001***
	Within Groups	24133.283	1005	24.013		
	Total	24425.474	1006			
Middle School	Between Groups	32.468	1	32.468	1.755	0.186
	Within Groups	7365.110	398	18.505		
	Total	7397.577	399			
High School	Between Groups	308.769	1	308.769	11.210	<0.001***
	Within Groups	16636.169	604	20.036		
	Total	16944.939	605			

***$p < 0.001$

The analysis revealed a statistically significant effect between the entire sample and the victimization scores, $F(1, 1005) = 12.168$, $p = 0.001$. Table 15 displays the output for the entire sample. In the same examination broken down by building, the gender among the high school sample divulged a statistical significant effect, $F(1, 604) = 11.210$, $p = 0.001$; however, the middle school results did not show statistical significance, $F(1, 398) = 1.755$, $p = 0.186$.

Socioeconomic status and grade level. The second sub-question related to cyberbully victimization scores analyzes socioeconomic status, based on a student receiving free or reduced lunch, among each grade level, overall sample, and among buildings. Although seven total grades were surveyed with results analyzed among grade level using a one-way ANOVA, there was not a single grade level that returned a statistically significant effect. The 11th grade analysis was the closest to significance, $F(1, 149) = 2.630$, $p = 0.107$, but still nearly 0.06 away from significance. Full ANOVA results are displayed in Appendix K.

Although the analysis of each individual grade level returned no statistical significance, a one-way ANOVA was conducted using the entire sample population. These results are displayed in Table 15.

Table 15

Analysis of Variance for Victimization Scores and SES for the Sample and Buildings

	Source	SS	df	MS	F	Sig.
Whole Population	Between Groups	104.587	1	104.587	4.497	0.034*
	Within Groups	23371.916	1005	23.256		
	Total	23476.502	1006			
Middle School	Between Groups	30.826	1	30.826	1.969	0.161
	Within Groups	6214.151	397	15.653		
	Total	6244.977	398			
High School	Between Groups	77.579	1	77.579	2.755	0.097
	Within Groups	17038.829	605	28.163		
	Total	17116.409	606			

*$p < 0.05$

A statistically significant effect was found between victimization scores and socioeconomic status, $F(1, 1005) = 4.497$, $p = 0.034$. However, the one-way ANOVA comparing mean differences among victimization scores and socioeconomic status for the middle school sample revealed no statistical significance, $F(1, 397) = 1.969$, $p = 0.161$. The same analysis was conducted on the high school sample also resulting in no statistical significance, $F(1, 605) = 2.755$, $p = 0.097$.

Special services and grade level. The next sub-question to help answer the second research question compares cyberbully victimization scores between students who receive special services and students who do not at each grade level. A one-way between subjects ANOVA was conducted on each grade level sample, results revealed three of the seven grades produced a statistically significant output of victimization score and special

services. Sixth, seventh and eleventh grade samples returned significance, $F(1, 114) = 7.510$, $p = 0.007$; $F(1, 122) = 9.124$, $p = 0.003$; $F(1, 146) = 7.771$, $p = 0.006$ respectively. A one-way between subjects ANOVA was conducted on the entire sample comparing victimization scores with special services. The ANOVA outputs for all seven grades are displayed in Table 16.

Table 16

Analysis of Variance for Victimization Scores and Special Services among Grade Level

Grade	Source	SS	df	MS	*F*	Sig.
6th	Between Groups	125.899	1	125.899	7.510	0.007**
	Within Groups	1911.092	114	16.764		
	Total	2036.991	115			
7th	Between Groups	141.495	1	141.495	9.124	0.003**
	Within Groups	1891.924	122	15.508		
	Total	2033.419	123			
8th	Between Groups	66.964	1	66.964	3.240	0.074
	Within Groups	3182.645	154	20.667		
	Total	3249.609	155			
9th	Between Groups	144.326	1	144.326	3.781	0.053
	Within Groups	7099.392	186	38.169		
	Total	7243.718	187			
10th	Between Groups	1.556	1	1.556	0.065	0.799
	Within Groups	3142.302	132	23.805		
	Total	3143.858	133			
11th	Between Groups	136.566	1	136.566	7.771	0.006**
	Within Groups	2565.677	146	17.573		
	Total	2702.243	147			
12th	Between Groups	3.844	1	3.844	0.183	0.669
	Within Groups	2745.675	131	20.959		
	Total	2749.519	132			

**$p < 0.01$

The results produced a statistically significant effect, $F(1, 996) = 17.893$, $p < 0.001$. Additionally, the same analysis was conducted on the middle school sample and the high school sample with output results displayed in Table 17.

Table 17

Analysis of Variance for Victimization Scores and Special Services for the Sample and Buildings

	Source	SS	df	MS	*F*	Sig.
Whole Population	Between Groups	412.884	1	412.884	17.893	<0.001***
	Within Groups	22982.679	996	23.075		
	Total	23395.563	997			
Middle School	Between Groups	325.700	1	325.700	18.183	<0.001***
	Within Groups	7057.411	394	17.912		
	Total	7383.111	395			
High School	Between Groups	132.997	1	132.997	5.044	0.025*
	Within Groups	15820.485	600	26.367		
	Total	15953.482	601			

*$p < 0.05$. ***$p < 0.001$

The one-way ANOVA returned a statistical significance of special services on victimization scores for the middle school sample, $F(1, 394) = 18.183$, $p < 0.001$, and high school sample, $F(1, 600) = 5.044$, $p = 0.025$.

Victimization across grade and gender. The next sub-question assessed whether grade level and gender each seem to have a statistically significant effect on cyberbully victimization scores, and whether the effects of grade level on cyberbully victimization scores depend on gender (i.e. on the interaction of grade level with gender); a two-way ANOVA was conducted. Table 18 shows the means and standard deviations for victimization scores for the two genders and for the seven grade levels.

Table 18

Means, Standard Deviations, and n for Victimization Scores as a Function of Gender and Grade

	Males			Females			Total	
Grade	***n***	***M***	***SD***	***n***	***M***	***SD***	***M***	***SD***
6th	60	1.38	5.289	59	1.54	2.595	1.46	4.160
7th	77	2.12	4.016	48	2.77	4.127	2.37	4.055
8th	68	1.85	4.608	88	2.74	4.545	2.35	4.579
9th	92	2.30	5.320	96	4.40	7.632	3.37	6.668
10th	65	1.74	3.541	70	3.40	5.497	2.60	4.716
11th	89	1.94	3.432	62	2.73	5.258	2.26	4.278
12th	66	1.62	3.632	66	2.44	5.341	2.03	1.568
Total	517	1.89	4.316	489	2.98	5.452	2.42	4.929

Table 19 shows that there was not a significant interaction between gender and grade level on victimization scores $F(6, 992) = 0.676$, $p = 0.669$.

Table 19

Analysis of Variance for Victimization Scores as a Function of Gender and Grade

Variable and source	**df**	**MS**	***F***	***p***	η^2
Gender	1	246.024	10.290	<0.001*	0.010
Grade	6	49.686	2.078	0.053	0.012
Gender×Grade	6	16.169	0.676	0.669	0.004
Error	992	23.909			

Furthermore, there was not a statistically significant main effect of grade level and victimization scores, $F(6, 992) = 2.078$, $p = 0.053$. There was, however, a statistically significant main effect of gender of victimization scores, $F(1, 992) = 10.290$, $p = 0.001$. Eta for gender was 0.01, which is a small effect.

Victimization across gender and socioeconomic status. Sub-question five analyzed victimization scores between genders in regard to socioeconomic status. Means and standard deviations for victimization scores for gender and socioeconomic status are shown in Table 20.

Table 20

Means, Standard Deviations, and n for Victimization Scores as a Function of Gender and SES

	Males			Females			Total	
SES	***n***	***M***	***SD***	***n***	***M***	***SD***	***M***	***SD***
Free or Reduced	193	2.36	4.057	173	3.31	5.513	2.81	4.817
Not Free or Reduced	322	1.53	4.030	315	2.80	5.425	2.16	4.810
Total	515	1.84	4.056	488	2.98	5.456	2.39	4.820

A two-way ANOVA was conducted to assess whether gender and socioeconomic status have a statistically significant effect on victimization scores. Additionally, the analysis determined whether the effects of socioeconomic status on victimization scores create a significant interaction with gender. ANOVA results are displayed in Table 21.

Table 21

Analysis of Variance for Victimization Scores as a Function of Gender and SES

Variable and source	**df**	**MS**	***F***	***p***	η^2
Gender	1	286.888	12.548	<0.001***	0.012
SES	1	103.017	4.506	0.034*	0.004
Gender×SES	1	6.178	0.270	0.603	<0.001
Error	999	22.864			

*$p < 0.05$. ***$p < 0.001$

ANOVA results indicate no significant interaction between gender and socioeconomic status $F(1, 999) = 0.270$, $p = 0.603$. However, there was a statistically significant main effect of gender on victimization scores, $F(1, 999) = 12.548$, $p < 0.001$ and socioeconomic status, $F(1, 999) = 4.506$, $p = 0.034$. The effect size for gender was small ($\eta = 0.11$), as was the socioeconomic effect size ($\eta = 0.06$).

Victimization across gender and special services. The final sub-question, which helps answer research question two, uses a two-way ANOVA to investigate differences in gender and self-identified students for special services among victimization

scores. Table 22 shows the means and standard deviations for victimization scores for the two genders and the two levels of special services. Results from the ANOVA are shown in Table 23.

Table 22

Means, Standard Deviations, and n for Victimization Scores as a Function of Gender and Special Services

	Males			Females			Total	
Special Services	***n***	***M***	***SD***	***n***	***M***	***SD***	***M***	***SD***
Special Services	62	3.81	5.906	35	5.37	6.260	4.37	6.051
Not in Special Services	448	1.65	4.016	448	2.73	5.136	2.19	4.639
Total	510	1.91	4.341	483	2.92	5.263	2.40	4.835

Table 23

Analysis of Variance for Victimization Scores as a Function of Gender and Special Services

Variable and source	**df**	**MS**	***F***	***p***	η^2
Gender	1	142.093	6.256	0.013*	0.006
Special Services	1	467.884	20.601	<0.001***	0.020
Gender×SS	1	4.821	0.212	0.645	<0.001
Error	989	22.712			

*$p < 0.05$. ***$p < 0.001$

Results from the ANOVA showed a significant main effect for gender, $F(1, 989) = 6.256$, $p = 0.013$, and special services, $F(1, 989) = 20.601$, $p < 0.001$. Eta values for gender and special services were both considered small effects ($\eta = 0.08$ and $\eta = 0.14$ respectively). The interaction between factors was not significant, $F(1, 989) = 0.212$, $p = 0.645$.

Offending Scores

While part of the survey instrument focused on cyberbully victimization, the other part was designed to identify cyberbully offenders. The offending score is calculated

based upon the answers provided on questions 13 through 21. Each question within this range was based upon the same 30-day period used to calculate victimization scores. The same five value choices were assigned to each question, which provided the same range of 0 to 36 for the offender summary scale. The offending scores of each respondent answer the third research question: Is there a significant difference in how students rate cyberbully offending in their schools according to their gender, socioeconomic status, special services, or grade level, or combinations of those factors? Six sub-questions have been developed to provide answers to the stated research question.

Gender and grade level. The first sub-question tested whether gender had a statistically significant effect on cyberbully offending scores. A one-way ANOVA at each grade level found no statistically significant effect on gender and offending scores. In fact, each analysis returned a significance level well above the determined 0.05 level. The ANOVA results for each grade level are displayed in Appendix L.

Additional one-way ANOVAs were conducted on the overall sample as well as each building sample to compare mean differences among gender and offending scores. Analysis revealed no statistical significance on the entire sample, $F(1, 1005) = 0.015$, $p = 0.904$. Results on each building also returned no significance; these results can be seen in Table 24.

Table 24

Analysis of Variance for Offending Scores and Gender for the Sample and Buildings

	Source	SS	df	MS	*F*	Sig.
Whole Population	Between Groups	0.199	1	0.199	0.015	0.904
	Within Groups	13637.970	1005	13.570		
	Total	13638.169	1006			
Middle School	Between Groups	5.538	1	5.538	1.575	0.210
	Within Groups	2399.252	398	3.516		
	Total	1404.790	399			
High School	Between Groups	2.087	1	2.087	0.104	0.747
	Within Groups	12101.451	604	20.036		
	Total	12103.538	605			

Socioeconomic status and grade level. The second sub-question was analyzed using a one-way ANOVA to determine whether socioeconomic status, determined by students who receive free or reduced lunch, had a statistically significant effect on cyberbully offending scores. Although seven grade levels were surveyed, analysis revealed no statistical significance on offending scores compared with socioeconomic status. Eleventh grade results returned a significance level close to the determined level, $F(1, 149) = 3.015$, $p = 0.085$, yet still 0.035 from statistical significance. The entire grade level table can be viewed in Appendix M.

Since the analysis of offending scores with socioeconomic status produced no statistical significance at each grade level, a one-way ANOVA was conducted using the whole population. Results from these three examinations are presented in Table 25.

Table 25

Analysis of Variance for Offending Scores and SES for the Sample and Buildings

	Source	SS	df	MS	*F*	Sig.
Whole Population	Between Groups	5.610	1	5.610	0.414	0.520
	Within Groups	13632.559	1005	13.565		
	Total	13638.169	1006			
Middle School	Between Groups	1.264	1	1.264	0.358	0.550
	Within Groups	1403.042	397	3.534		
	Total	1404.306	398			
High School	Between Groups	3.614	1	3.614	0.181	0.671
	Within Groups	12101.935	605	20.003		
	Total	12105.549	606			

This evaluation also returned no statistical significance, $F(1, 1005) = 0.414$, $p = 0.520$. Furthermore, the same tests were conducted on the middle school sample and high school sample, yet no significance was found.

Special services and grade level. The third sub-question focuses on whether special services, based on self-identification of special education classes or services, have a statistically significant effect on cyberbully offending scores. A one-way between subjects ANOVA was conducted for all seven grades and results are represented in Table 26.

Table 26

Analysis of Variance for Offending Scores and Special Services among Grade Level

Grade	Source	SS	df	MS	*F*	Sig.
6th	Between Groups	2.688	1	2.688	1.645	0.202
	Within Groups	186.277	114	1.634		
	Total	188.966	115			
7th	Between Groups	12.517	1	12.517	1.858	0.175
	Within Groups	822.088	122	6.738		
	Total	834.605	123			
8th	Between Groups	3.077	1	3.077	1.303	0.255
	Within Groups	363.589	154	2.361		
	Total	366.667	155			
9th	Between Groups	64.240	1	64.240	2.528	0.114
	Within Groups	4726.739	186	25.413		
	Total	4790.979	187			
10th	Between Groups	24.184	1	24.184	2.905	0.091
	Within Groups	1098.808	132	8.324		
	Total	1122.993	133			
11th	Between Groups	344.498	1	344.498	17.152	<0.001***
	Within Groups	2932.333	146	20.084		
	Total	3276.831	147			
12th	Between Groups	5.790	1	5.790	0.431	0.513
	Within Groups	1759.519	131	13.431		
	Total	1765.308	132			

***$p < 0.001$

Results from all seven grade levels showed only eleventh grade special services were statistically significant among offending scores, $F(1, 146) = 17.152$, $p < 0.001$. Although only one grade level produced statistical significance between special services and offending scores, when the overall sample was analyzed using a one-way ANOVA, the results produced a statistically significant effect, $F(1, 996) = 20.183$, $p < 0.001$. Table 27 displays the output results for the three analyses.

Table 27

Analysis of Variance for Offending Scores and Special Services for the Sample and Buildings

	Source	SS	df	MS	F	Sig.
Whole Population	Between Groups	247.932	1	247.932	20.183	<0.001***
	Within Groups	12235.131	996	12.284		
	Total	12483.063	997			
Middle School	Between Groups	18.808	1	18.808	5.353	0.021*
	Within Groups	1384.431	394	3.514		
	Total	1403.240	395			
High School	Between Groups	277.918	1	277.918	15.581	<0.001***
	Within Groups	10702.215	600	17.837		
	Total	10980.133	601			

*$p < 0.05$. ***$p < 0.001$

Additionally, the same analysis was individually conducted on the middle school and high school samples. The middle school test returned statistical significance of special services on offending scores, $F(1, 394) = 5.353$, $p = 0.21$; in addition, the high school sample also produced a statistically significant effect, $F(1, 600) = 15.581$, $p < 0.001$.

Offending across grade and gender. The fourth sub-question related to cyberbully offending addresses whether grade level and gender have a statistically significant effect on cyberbully offending scores. The means and standard deviations for offending scores is presented in Table 28 divided between male and female within each grade level.

Table 28

Means, Standard Deviations, and n for Offending Scores as a Function of Gender and Grade

	Males			Females			Total	
Grade	***n***	***M***	***SD***	***n***	***M***	***SD***	***M***	***SD***
6th	60	0.53	1.432	59	0.41	1.085	0.47	1.268
7th	77	1.05	3.060	48	0.77	1.601	0.94	2.594
8th	68	0.78	1.761	88	0.58	1.345	0.67	1.538
9th	92	1.34	4.933	96	2.01	6.050	1.68	5.527
10th	65	1.17	3.736	70	0.86	1.812	1.01	2.895
11th	89	1.70	4.768	62	1.50	4.888	1.62	4.803
12th	66	1.14	2.398	66	1.35	4.619	1.24	3.668
Total	517	1.14	3.572	489	1.12	3.801	1.13	3.683

A two-way ANOVA was conducted to determine these effects as well as the interaction between grade level and gender on offending scores. Analysis results are presented in Table 29.

Table 29

Analysis of Variance for Offending Scores as a Function of Gender and Grade

Variable and source	**df**	**MS**	***F***	***p***	η^2
Gender	1	0.263	0.019	0.889	<0.001
Grade	6	29.953	2.215	0.040*	0.013
Gender×Grade	6	5.305	0.392	0.884	0.002
Error	992	13.525			

*$p < 0.05$

The two-way ANOVA did not return a significant interaction between gender and grade level on offending scores, $F(6, 992) = 0.392$, $p = 0.884$. Additionally, there was not a statistically significant main effect of gender and offending scores, $F(1, 992) = 0.019$, $p = 0.889$; however, grade level and offending scores produced a statistically significant main effect, $F(6, 992) = 2.215$, $p = 0.040$. Despite the significance, the effect size was considered small ($\eta = 0.11$).

Offending across gender and socioeconomic status. The next sub-question examined offending scores between genders in regard to socioeconomic status; Table 30 exhibits the means and standard deviations for the analysis results.

Table 30

Means, Standard Deviations, and n for Offending Scores as a Function of Gender and SES

	Males			Females			Total	
SES	***n***	***M***	***SD***	***n***	***M***	***SD***	***M***	***SD***
Free or Reduced	193	1.25	3.451	173	0.82	1.719	1.05	2.776
Not Free or Reduced	322	1.09	3.658	315	1.29	4.555	1.19	4.124
Total	515	1.15	3.579	488	1.12	3.804	1.14	3.689

Data analysis was conducted assessing whether gender and socioeconomic status have a statistically significant effect on offending scores and if the effects of socioeconomic status on offending scores creates a significant interaction with gender. The two-way ANOVA for this analysis is displayed in Table 31.

Table 31

Analysis of Variance for Offending Scores as a Function of Gender and SES

Variable and source	**df**	**MS**	***F***	***p***	η^2
Gender	1	3.429	0.252	0.616	<0.001
SES	1	5.687	0.418	0.518	<0.001
Gender×SES	1	23.355	1.715	0.191	0.002
Error	999	13.618			

The two-way ANOVA revealed no significant interaction between gender and socioeconomic status, $F(1, 999) = 1.715$, $p = 0.191$. ANOVA results also showed no statistically significant main effect of gender on offending scores, $F(1, 999) = 0.252$, $p = 0.616$, and socioeconomic status, $F(1, 999) = 0.418$, $p = 0.518$.

Offending across gender and special services. The last sub-question of research question three investigates the difference in gender and students receiving special services among offending scores. The means and standard deviations are displayed in Table 32.

Table 32

Means, Standard Deviations, and n for Offending Scores as a Function of Gender and Special Services

	Males			Females			Total	
Special Services	**n**	**M**	**SD**	**n**	**M**	**SD**	**M**	**SD**
Special Services	62	3.02	7.033	35	1.89	6.182	2.61	6.728
Not in Special Services	448	0.87	2.641	448	1.00	3.265	0.93	2.968
Total	510	1.13	3.542	483	1.06	3.554	1.09	3.547

A two-way ANOVA was conducted to determine significant main effects and between factors interaction. The ANOVA output is shown in Table 33.

Table 33

Analysis of Variance for Offending Scores as a Function of Gender and Special Services

Variable and source	**df**	**MS**	***F***	***p***	η^2
Gender	1	20.378	1.652	0.199	0.002
Special Services	1	188.001	15.242	<0.001***	0.015
Gender×SS	1	32.285	2.618	0.106	0.003
Error	989	12.334			

***$p < 0.001$

Results from the ANOVA test showed a significant main effect for special services, $F(1, 989) = 15.242$, $p < 0.001$. However the main effect for gender within offending scores did not produce significance, $F(1, 989) = 1.652$, $p = 0.199$. Additionally, the interaction between gender and special services was not significant, $F(1, 989) = 2.618$, $p = 0.106$.

Victimization and Offending Correlation

The final research question the study sought to answer was, Is there a relationship between cyberbully victimization and cyberbully offending among the students? To investigate if there was a statistically significant association between victimization scores and offending scores, a bivariate correlation was computed. First, a graph was created to determine whether a linear regression line or quadratic regression line best fit the data, thus determining variance in the data. Figure 1 shows the scatterplot of offending scores with victimization scores including the linear line of best fit.

Figure 1

Correlation of Offending Scores with Victimization Scores – Linear Line of Best Fit

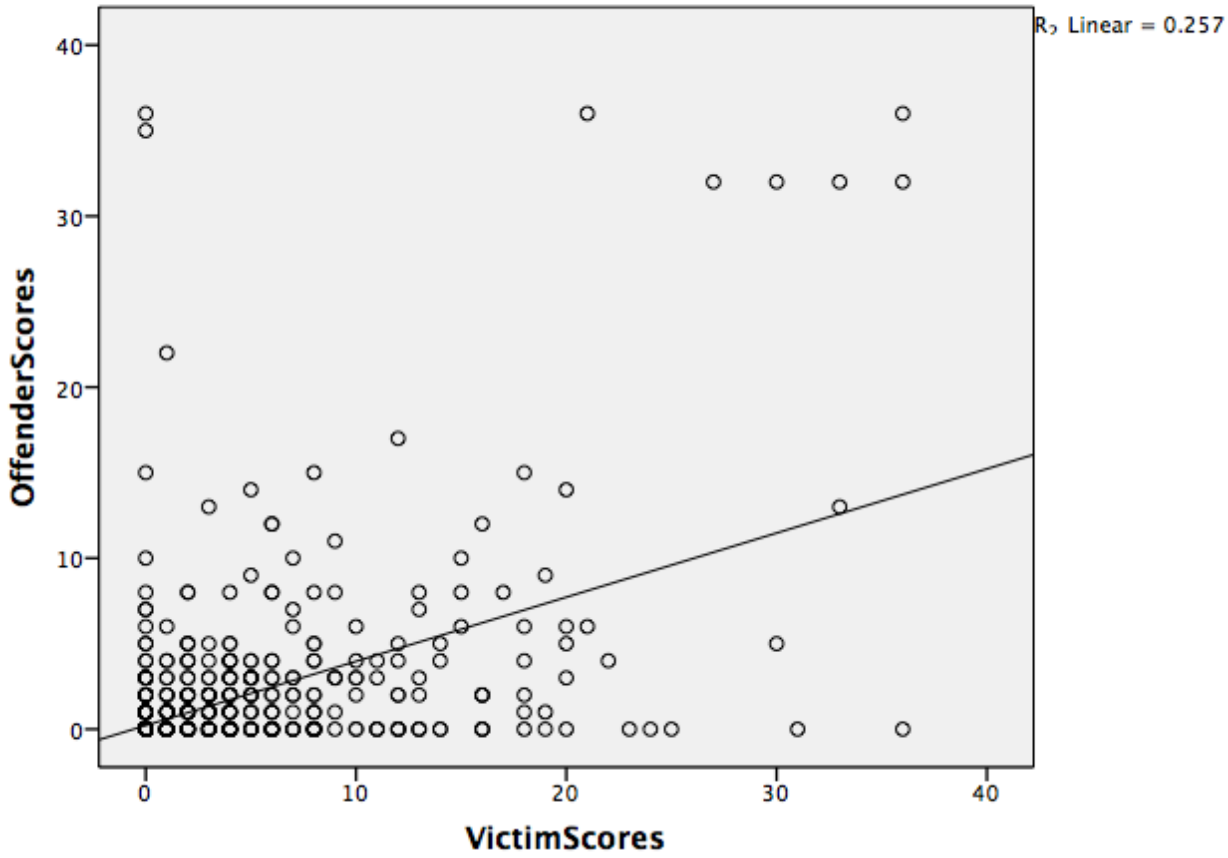
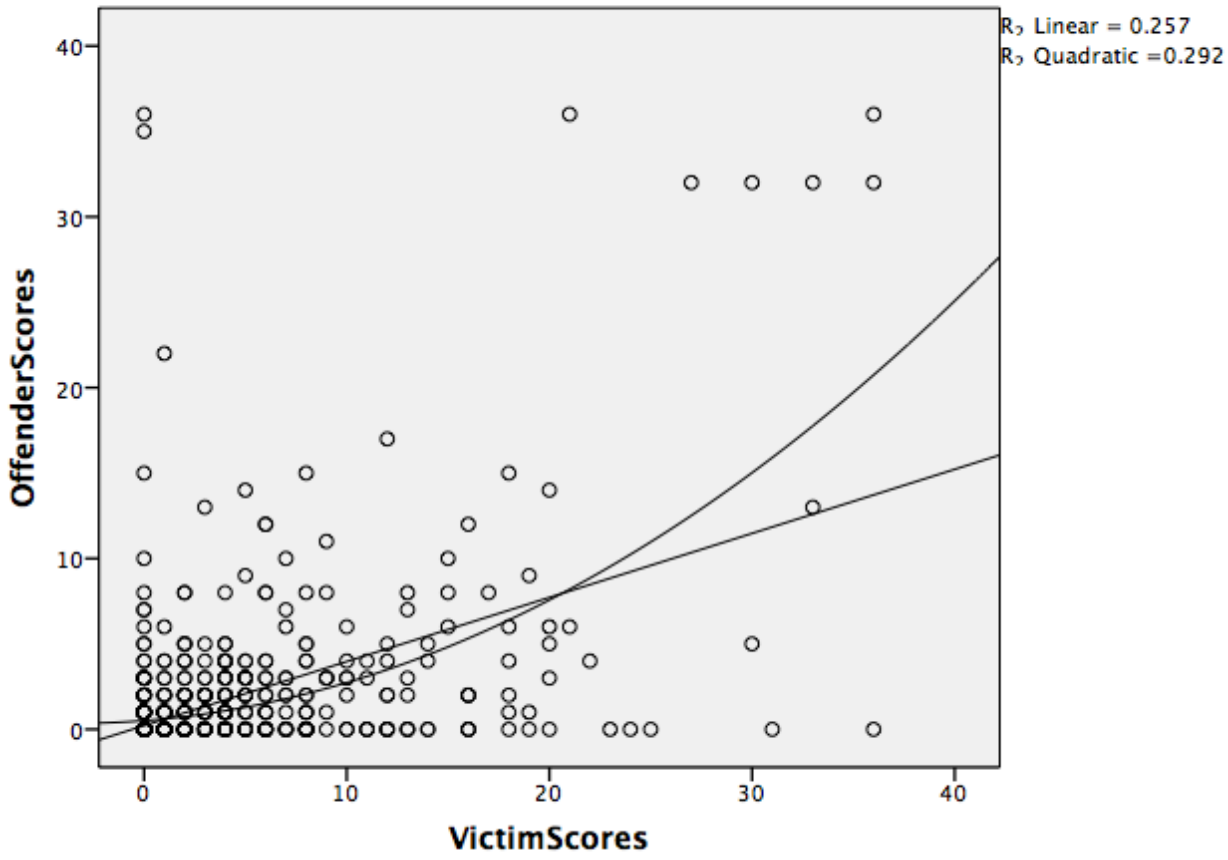


Figure 2 represents the same scatterplot with the quadratic line of best fit included.

Figure 2

Correlation of Offending Scores with Victimization Scores – Quadratic Line of Best Fit



The correlation descriptive statistics revealed victimization scores were skewed (skewness = 3.392), which violated the assumption of normality. Therefore, the Spearman rho statistic was calculated, $r_s(1012) = 0.481$, $p < 0.001$. The direction of the correlation was positive, which means that students who have reported victimization tend to also participate as offenders and vice versa. The effect size indicates a medium relationship between the two variables (Morgan, Leech, Gloeckner, & Barrett, 2013). Since the r^2 is larger on the quadratic regression line ($r^2 = 0.292$) this indicates the

quadratic regression line is a better fit for the data and that approximately 29.2% of the variance in offending scores can be predicted from victimization scores.

Summary

Data analysis was conducted on 1,014 surveys to determine the prevalence of cyberbullying, both as a victim or offender. Four research questions were answered using descriptive statistics, one-way and two-way ANOVAs, and a bivariate correlation. The data revealed that 38.6% of students reported falling prey to cyberbullying during their lifetime, while only 22.4% reported cyberbullying other individuals. In fact, 16.1% (n = 162) of students who reported victimization also reported cyberbullying others. Further analysis showed gender, socioeconomic status, and special services each yielded statistical significance based on victimization scores, while only special services produced significance with offending scores. Finally, a statistical correlation was returned on the analysis indicating a moderate, positive relationship between offending scores and victimization scores.

CHAPTER V

CONCLUSION

Introduction

This final chapter provides a brief overview of the entire research study. First, a review of the problem is presented followed by a restatement of the research questions. This section briefly discusses the research study participants and the type of information collected. Next the study findings are presented in a succinct manner using the research questions that helped guide the study, followed by conclusions based on the research findings. A connection to theory follows the conclusions and leads into a discussion on implications for theory, future research, and current practice. The last section provides insight into the researcher's thoughts post research; comments, analysis, and evaluations following the overall outcomes are discussed as a final thought.

Summary of the Study

Technology is advancing at a rapid pace, and it seems today's generation constantly has access to one another through text messaging, social media, and video chats. While most can access this "digital world" through the Internet on a computer, the majority are "connected" 24/7 through cell phones. Hinduja and Patchin (2011) found that 91.7% of teenagers use cell phones (personal communication, April 2, 2013); it is

estimated that nearly 70% of teenagers carry a smartphone ("Ring the Bells", 2013), up from 36% in 2011 ("Young Adults and Teens", 2012). Results from this study showed 91.0% of participants carried a cell phone to school, while 91.4% had internet access at home.

The use of the Internet and smart phones has provided some positive advantages to society. However, these technological advancements have also created a whole new world for teenagers their parents never encountered when growing up. Today's generation is focused less on face-to-face interactions and more on digital, sometimes anonymous interactions (Juvonen & Gross, 2008; Smith et al., 2008; Tokunaga, 2010). The growth in technology provides an alternative means to bully in addition to face-to-face interactions, and may be a cause of an increase in bullying incidents. Cyberbullying provides the opportunity for anonymous, easy access bullying.

Bully victims no longer can leave the harsh reality of physical or social bullying at school when they go home. The availability of social media, the Internet, and text messaging means victims of cyberbullying are always within reach of the tormentor. Kowalski and Limber (2007) conducted a study on middle school students and found that 11 percent had been bullied by an electronic method within a period of two months. According to a survey conducted by the United States Department of Justice (2011), this percentage is rising with a reported 19.6 percent of students' ages 12-18 reporting cyberbully victimization at least once or twice a month, and 71.9 percent at least once or twice during a school year.

With the growing phenomenon of cyberbullying, teenagers, parents, school officials, and lawmakers are faced with the question, "How can we prevent victimization?"

To find the answer this question, a collective effort by all stakeholders is the place to start. In order to begin prevention efforts, lawmakers must recognize the issue; however, research shows only 20 states currently include the term "cyberbullying" in their state laws while 48 states also, or only, include the term "electronic harassment" (Hinduja & Patchin, 2014). In addition to state laws, school districts must develop and implement cyberbullying policies; however, without cyberbullying prevalence data it may prove difficult to find a starting place.

The purpose of this study was to examine cyberbullying as experienced by students at a rural public school in Oklahoma. The quantitative study was an exploratory, descriptive study adding to the growing body of research focused on cyberbullying. This study helped determine the prevalence of cyberbullying for students in the sixth through twelfth grades based on four demographic variables: gender, grade level, socioeconomic status, and identified as special education. Numerous research studies have analyzed cyberbullying on gender and grade level, yet rarely are socioeconomic status or special education considered. The outcome provided district and building administrators an understanding of the prevalence of cyberbullying within the district to aid in establishing prevention and training plans for all students.

The overriding research question for this study is: What is the prevalence of cyberbullying among adolescents? In order to answer this question, the following four research questions were considered:

- What is the frequency of cyberbully victimization and cyberbully offending among middle and high school students?

- Is there a significant difference in how students rate cyberbully victimization in their schools according to their gender, socioeconomic status, special services, or grade level, or combinations of those factors?
- Is there a significant difference in how students rate cyberbully offending in their schools according to their gender, socioeconomic status, special services, or grade level, or combinations of those factors?
- Is there a relationship between cyberbully victimization and cyberbully offending among the students?

These questions provided guidance for data analysis while determining the frequency of cyberbullying involvement as a victim and/or offender among the 1,014 students who completed the Cyberbullying and Online Aggression Survey Instrument for this study.

After reviewing the current literature, this researcher concluded that in order to understand cyberbullying, one must first grasp the research surrounding traditional bullying. Therefore, the literature review begins with a definition of bullying followed by research on types of bullying and the effect bullying may have on an individual. The definition of cyberbullying shows many similar characteristics among researchers including some type of harm or aggression through online means. Research has shown different methods of cyberbullying and these acts may have negative effects on many victims and offenders. An understanding of age and gender difference is presented along with prevention and legislation regarding cyberbullying.

Findings

Survey results from 1,014 participants revealed 38.6% were victims of cyberbullying. There were 33.6% of middle school students and 41.9% of high school

students who reported victimization. The overall percentage is lower than earlier studies that reported victimization rates ranging from 49% to 72% (Juvonen & Gross, 2008; Mishna et al., 2010). As with most studies, individuals report experiences with cyberbullying as a victim but less frequently admit to engaging in cyberbullying as the aggressor. This study found that 22.4% reported cyberbullying others, which is consistent with research by Walrave and Heriman (2011) that found 21.2% admitted to cyberbullying other individuals.

Analysis of victim responses based on grade level found the percentage of reported victims increased from one grade to the next with nearly one-half (44.7%) of 12th grade victims experience cyberbullying as a victim. There was a slight drop in victimization during the 10th and 11th grade participants; however, from the start of sixth grade to the end of twelfth grade victimization involvement increased nearly 15%. Offending also increased each grade level with two minor decreases from 7th to 8th grade and then from 9th to 10th grade; however, over one-third (34.8%) of twelfth graders reported cyberbullying others. This gradual increase between grade levels is consistent with several research studies (Hinduja & Patchin, 2008; Kowalski & Limber, 2007; Mishna et al., 2010; Smith et al., 2008; Vandebosch & Van Cleemput, 2009; Ybarra & Mitchell, 2004).

An unexpected finding related to grade level showed victimization scores for 9th grade students had the highest mean ($M = 3.37$) by over half a point than did the next closest grade level. The same finding was revealed through mean offending scores, where 9th grade students averaged the highest mean ($M = 1.67$) over all other grade levels; however, the offending mean is only a few hundredths of a point from the 11th

grade average. While other grades reported significance related to specific variables, ninth grade students reported higher frequencies of victimization and offending than all other grade levels; however, this study does not provide the data to explain this finding.

In this study, over one and a half times more females reported being victims of cyberbullying than did males. In fact, almost half (47.7%) of females were victims compared to nearly one-third (29.5%) of male students. Based upon victimization, this finding is consistent with other research studies that found more females fall prey to cyberbullying than do males (Kowalski & Limber, 2007; Li, 2007; Mesch, 2009; Schnieder et al., 2012; Smith et al., 2008; Wang et al., 2009). Although findings of research studies differ on which gender offends more frequently, Wang et al. (2009) reported boys were slightly more likely to be cyberbullies. However, results from this study, which found females (24.3%) were involved as cyberbullies slightly more than male student (20.7%), were consistent with the findings in the study by Jackson et al. (2009).

Students who receive free or reduced lunch, indicating lower socioeconomic status, reported higher victimization (43.8%) than did students who do not receive free or reduced lunch (35.4%). While victimization between the two groups differed by several percentage points, offending results were nearly equal with 22.7% of lower socioeconomic students admitting to offending others and 22.3% of students not receiving free or reduced lunch.

The special education variable produced similar results. Special education students were more frequently victimized than were regular education peers. In fact, over half (59.8%) of special education respondents reported victimization. Regular education

students were victimized significantly less often with 36.1% reporting victimization experiences. This supports the contention of Cassidy et al. (2009) that peers are more likely to cyberbullying students because "of special attributes such as special needs, academic abilities…physical and mental disabilities" (p. 389). The comparison of offending participation among special education students (24.7%) and regular education students (22.0%) showed similar involvement indicating special education students more often are victims and offenders of cyberbullying than are regular education students. Previous research related to special education and cyberbullying has been minimal; however, Didden et al. (2009) found victimization and cyberbullying was prevalent and related to an individual's IQ and type of disorder, specifically Attention Deficit Hyperactivity Disorder (ADHD).

Results indicated students' victimization scores are dependent on gender, socioeconomic status, and special education among the sample population. These same scores are not entirely dependent on grade level within each of the three stated demographics; however, there are specific grades that were significant based on victimization scores. Socioeconomic status showed insignificant variation between grade levels; however, gender differences were prevalent with 9th and 10th grade victims and 6th, 7th, and 11th grade special education students' revealed significant differences.

Offending scores analyzed with each variable showed less significance than did victimization, which could be tied to a lower number of participants admitting to cyberbullying others compared to being victims. In fact, no difference was found between genders when comparing offending scores for the entire sample, each building, and individual grade levels. The same result was also true for offending scores and

socioeconomic status. However, special education showed significance overall, middle school, and high school samples. Special education participants in the eleventh grade also produced significant results between the two groups.

Finally, victimization scores and offending scores for the entire population were positively correlated. This correlation suggests as the sum of victimization scores increases, so does the sum of offender scores. Therefore, individuals who report higher frequencies of victimization also share higher occurrences of offending characteristics.

Conclusions

Research suggests that cyberbullying is a growing concern among secondary school students (Juvonen & Goss, 2008; Mishna et al., 2010; Tokunaga, 2010). The findings of this study lead to the following conclusions. The first conclusion regarding prevalence among the sample population is that cyberbullying is a problem among the students at both the high school and middle school where the study was conducted. When over one-third of the sample population reports an experience with cyberbullying as a victim and nearly one-fourth admit to cyberbullying others, then a cyberbullying problem exists.

The second conclusion from this study is that females are more likely to be victims of cyberbullying more often than are male students. In this study, gender was shown to be a factor of significance in victimization, but more specifically among high school students. This conclusion is based not only upon the number of participants who reported being victimized during a lifetime, but also on the results of comparing victimization scores with gender that indicated females reported higher victimization experiences through victimization scores than did males during a 30-day period.

Another conclusion of this research is that students receiving free or reduced lunch, an indication of lower socioeconomic status, are more often cyberbully victims than are students who do not receive this economic discount. Nearly half of lower socioeconomic students report at least one victim experience. Furthermore, socioeconomic status is a significant factor of victimization scores. While this may be true for the sample population, victimization scores are not significantly impacted when analyzed with socioeconomic status among the middle school or high school sample.

Among the four demographic variables used in this study, special education students reported the highest number of victimization experiences; this leads to an additional conclusion that special education students are greater targets for cyberbullying than regular education students. Although the sample of special education students in this study is small ($n = 97$), over half of these students reported being victimized by a cyberbully. Further analysis supported this conclusion when special education was analyzed with victimization scores and special education was shown to be a factor of significance among the sample, middle school, and high school populations. In addition, three of the seven grade levels also showed significance between victimization scores and special education.

Conclusions of this study are not based solely upon victimization; cyberbully offending also produced conclusions, which was evident in the first stated conclusion that dealt with offending being a problem. The second offending conclusion stated that females are cyberbullies more often than are males, even though the percentages of reported involvement are only slightly higher for females overall as well as for the middle school and high school samples. This conclusion is based on the findings related to the

number of students, who reported involvement. When gender was analyzed with offending scores, results indicated no significance.

An additional conclusion in regard to cyberbullying is that special education students may be at a higher risk of becoming a cyberbully. Similar to the gender conclusion, the reported percentage of involvement was only slightly higher between the two groups; however, the significance is true for the overall, middle school, and high school samples. In addition, significance between special education students and offending scores was found in only one grade level, the 11th grade.

These two conclusions based on gender and special education offending are consistent with victimization conclusions for the same demographics. However, while findings led to clearer conclusions for two of the study variables, offending is not affected by socioeconomic status; both socioeconomic groups equally participate in cyberbullying others. In addition, socioeconomic status was not a factor of significance with offending scores. This finding leads to a final offending conclusion; socioeconomic status is not a factor in determing offending prevalence.

The final conclusion of this study is that increased victimization experiences lead to greater offending. Data results revealed a positive correlation between the two categories, which introduces bully-victims to the research. Bully-victims are students who are victims and eventually become cyberbullies. This conclusion and the understanding of bully-victims leads the researcher to believe that an increase in victimization scores may lead to greater frequency of offending by the same individuals.

Connection to Theory

Individuals handle negative emotions, like anger or frustration, in various ways; sometimes these emotions may lead to criminal involvement, while other times the action may be less severe like cyberbullying. Agnew (1992) suggested that anger and other negative emotions are often the result of negative relationships that in turn cause strain on an individual. Strain has been shown to lead to crime (Agnew, 1992); however, it may also be the case that crime is merely a byproduct of strain (Agnew, 1992; Agnew 2001; Hay et al., 2010; Patchin & Hinduja, 2011). Patchin and Hinduja (2011) suggested that individuals who have felt angry or frustrated were likely to participate in cyberbullying. Although this study did not focus on the emotions behind why students act as cyberbullies, results are clear that cyberbullying is an issue among participants.

From a general strain theory viewpoint, negative emotions "create pressure for corrective action" (Agnew 2001, p. 319). Based on previously discussed negative effects that cyberbullying can have on individuals, Patchin and Hinduja (2011) suggested the strain of these emotions leads to cyberbullying. According to Jang, Song, and Kim (2014), "Strain factors in GST explained youths' cyberbullying behavior" (p. 92). If cyberbullying is caused by strain and strain is achieved through negative experiences, this research presents a vicious cycle for secondary school students who experience victimization and offend based upon that victimization.

While the survey instrument did not specifically question participants regarding strain related to cyberbullying, the survey did question participants on specific methods based on cyberbully victimization and offending. Experiences with any of these methods may lead to strain on the individual; in fact, the most frequently reported victimization

and offending method was "Someone/I posted mean or hurtful comments about me/someone online." Strain is not limited to a specific question or method from the survey. Additional data gathered from the survey generated victimization and offending scores based upon an individual's involvement in either category. These scores represent levels of involvement, and may also signify levels of strain on each involved individual.

Based on this study's findings, many students experience cyberbully victimization. In order to prevent the strain of these experiences from having serious effects in the future, understanding causes are critical. Hay and Meldrum (2010) provided examples of strain that included "hostility from parents, exclusion from peers, negative school experiences, and physical or criminal victimization" (p. 447). Besides parental hostility, most of these examples are behaviors that lead to cyberbullying. In fact, exclusion from peers is a form of bullying and can happen through cyberspace as well; while negative school experiences could lead to cyberbullying, being cyberbullied may lead to a negative school experience. With the prevalence of cyberbullying among students and the potential for victimization at any point, preventing this type of negative emotion for both the victim and offender may be key to preventing strain that may lead to criminal activity.

The findings presented several significant results related to each demographic variable; most notable among these was the victimization and offending of special education students. For some of these students, due to their mental or physical disability, just being at school causes undue strain; add potential victimization experiences, and these students may face more challenges. There is another concern related to offending practices of special education students. One of the ways special education students are

educationally serviced is through inclusion or mainstream classes. One of the reasons for this type of service is for peers to model appropriate social and academic behavior (Daniel & King, 1997). Research has found that "peers may be more effective when children hold self-doubt about their learning" (Schunk, 1987, p. 166). Since academic peers are modeling behavior for special education students, if these students observe cyberbullying taking place, whether against them or others, this modeling behavior may lead to increased cyberbullying numbers by special education students.

Implications

The findings and conclusions presented from this study generated implications related to theory, research, and practice. Theoretical implications lend support to Agnew's general strain theory and the focus on negative relationships leading to delinquency. Implications for research included additional research focused on qualitative studies related to special education students as well as further quantitative analysis on socioeconomic status in relation to cyberbullying. Finally, practice implications suggest the importance of developing plans to teach, train, and prevent cyberbullying among secondary school students.

Theory. General strain theory is focused on an individual's social environment and negative emotions that are developed within that environment. High exposure to strain has been shown to lead to criminal behavior (Agnew, 1992). While not every individual who experiences strain will follow a path of criminal behavior, strain has been shown to lead to bullying behavior (Hay & Meldrum, 2010; Hay et al., 2010; Jang et al., 2014; Patchin & Hinduja, 2011). With the number of students who reported

victimization experiences, one might speculate many of these individuals felt strain and may have led to adopting a corrective action: cyberbullying.

Without a longitudinal study, it is impossible to know whether there is any relationship between bullying behavior and criminal behavior. Through interviews of teen killers, Chalmers (2009) found that many reported bully victimization. It would take further research to determine if the actions of teen killers were directly related to bullying. However, given the theory and research surrounding cyberbullying, this study provided data to further analyze the relationship between strain and cyberbully offending within the surveyed population.

Research. The purpose of this study was to add to the research associated with cyberbullying and to better understand the influence identified variables had on cyberbullying. Using gender and grade level variables, this study provided data that added support to previous research. Females are more likely to be victims of cyberbullying than are male students, but further research is needed to understand the reasons for the difference. Results showed a larger percentage of females engaged in cyberbullying. What makes females greater victims for cyberbullying and does this victimization lead to greater offending? A qualitative study could examine the perceptions of males and females to further explore the role of gender in cyberbullying and victimization.

Minimal research has focused on cyberbullying and the frequency of involvement related to special education students and socioeconomic status. Cassidy et al. (2009) identified victim attributes reported by cyberbullies to include special needs or academic abilities: special education attributes; as well as physical appearance and unfashionable

clothing: potential signs of socioeconomic status. A study specific to cyberbullying and special education students, conducted by Didden et al. (2009), concluded there was minimal probability that special needs students are victims and/or bullies; however Didden et al. (2009) stated, "The lack of comparative studies preclude any firm conclusions" (p. 150). This study provided the opposite finding with special education students reporting the highest percentage of victimization and offending. Further research should be conducted to determine whether low intellectual development or developmental disabilities support findings from this study.

Finally, this study explored whether socioeconomic status, based on income level, was significant within cyberbullying. Minimal, if any, research has analyzed this variable based solely on cyberbullying. However, Murray and Farrington (2010) found that children with behavioral problems tend to come from "low-income families, with unemployed parents, living in subsidized housing, and dependent on welfare benefits" (p. 638). Although this study found that more low socioeconomic participants are victimized, these same individuals also have greater and more significant victimization scores; however, there was no significance related to offending. These findings may appear to conflict with Murray and Farrington's study, but victimization also produces behavioral problems at school (Hinduja & Patchin, 2011; Ybarra et al., 2007). Additional research to determine income level differences among victims and offenders may present new findings that socioeconomic status, both high and low is prevalent among cyberbullying.

Practice. With the understanding that cyberbullying is prevalent among the sample population, one recognizes that determining the best course of preventative action is important. With the data from the study, administrators in this school have the benefit

of results that identify potential problems. The first practice implication has provided administrators data to support policies and practices. This knowledge allows administrators, teachers, students, and parents a deeper understanding of the challenges that students face regarding cyberbullying. In addition, recognizing there is a problem helps all stakeholders' better work with each other for the safety of students.

The study results in regard to special education students provide an additional implication for practice. Since students involved in special needs classes and receiving special services are more likely to be involved in cyberbullying, a major focus should be on instructional and prevention strategies for these students. Individuals who have intellectual or development challenges do not need strain from cyberbullying in addition to the daily difficulties they often face at school. For some students, depending on the disability, taking the time to candidly explain cyberbullying and providing an easier definition for better understanding may help prevent some occurrences.

Focusing entirely on prevention strategies with special education students may not provide a full solution for the problem. Administration should also focus on empathy training for the entire student body. If all students were taught the importance of respecting each other, regardless of the physical or mental difference, then the number of all students involved in cyberbullying may decrease; specifically, doing so may decrease the number of cyberbullying experiences for special education.

Furthermore, explaining the definition of cyberbullying may cause students to consider their experiences and whether an incident was cyberbullying or just a conflict. For most students, special education and regular education, ongoing discussions within classrooms, one on one with counselors, and an inviting atmosphere within the

administrator's office may also help prevent cyberbullying. Students need to know they will be heard and the described incident believed by an adult. Acts of cyberbullying may never end, but providing teaching, encouraging open dialogue, and disciplining offenders can have an impact.

Future Research

This study used quantitative methodology to determine prevalence of cyberbullying as victims and offenders. From the results of this study there are three suggestions for future research. First, cyberbullying was found to consistently increase with grade level, with the exception of 8th and 10th grade; while traditional bullying studies have found offending decreases throughout high school (Pellegrini et a., 1999; Safran, 2008; Schneider et al., 2012). A future research study could be conducted on the same sample of students to determine if there is a relationship between grade level and bullying type, whether cyber or traditional. A survey could be administered with questions focused on cyberbully and traditional bully experiences as victims and offenders. Since previous research studies have either analyzed cyberbullying data or traditional bullying data, this study could compare the same group of students to determine how each grade level is affected by each method. An understanding by administrators would help guide the focus of prevention strategies based upon grade level involvement.

Closely aligned to the first suggestion, the second potential research could focus on 9th grade students. Since victimization and offending means were highest among 9th grade students, understanding the cause could help the academic and social success of these particular students. Research has found that the transition to high school is difficult

for most students. Since this is the case, adding cyberbully experiences on top of the challenges already faced with promotion may only increase the struggles. Further research can focus on the cause of frequency means for this age group and determine if these means are the result of a difficult transition.

The data analysis from the current study focused on the entire sample population. While the study focused on victimization and offending experiences, all respondents, despite potential involvement, were included in analysis. A future study could focus only on those in the sample who reported victimization or offending, purposefully eliminating the students who did not report an experience with cyberbullying. Running data analysis only on respondents with a victimization score or an offending score and comparing that score against each variable – gender, grade level, socioeconomic status, and special services – may assist in understanding the demographics of victims and offenders.

Finally, future research needs to focus on special education students. Based on the results of this study, one can surmise special education students are actively involved in cyberbullying. These particular students already face challenges at school, and adding victimization and offending experiences may cause more difficulties. This future study would be better conducted using a qualitative methodology allowing for interviews of special education students, regular education students, and teachers to discuss reasons for the high prevalence of cyberbullying and how these students perceive the actions taken as a cyberbully or victim.

Summary

The purpose of this quantitative study was to determine the prevalence of cyberbully victimization and offending among a group of secondary school students. In

addition, this study adds to the current body of research related to cyberbullying. Although previous research provided findings based on gender and grade level, this study also sought to determine whether socioeconomic status and special education were additional factors in determining a relationship with cyberbullying. Overall results found that over one-third reported victimization while almost one-quarter admitted offending. Gender, socioeconomic status, and special education each produced significant results based on victimization scores, offending scores, or both. More specifically, special education was significant among most test results for both categories. These findings led to a conclusion that cyberbullying is a concern among the sample population. An additional finding stated that special education students are greater targets for cyberbullies but also cyberbully others at a great rate.

Researcher Comments

This research study has been quite intriguing for me. I spent eight years teaching, coaching, and serving as an administrator within a school district and community that became a part of me. When I left for a new administrator position at a large suburban school district, I became involved in a cyberbullying situation that opened my eyes to the hurt and pain caused a victim and the mean and inconsiderate attitudes of the offenders. It was through this situation and a half-day conference on cyberbullying that I began to consider this topic for my research study. I quickly realized that I wanted to better understand this phenomenon within the district where I spent most of my career to that point. I wanted to help prevent the hurt and pain. I wanted to reach out to the offender and convince them their actions are not worth the damage that is caused to victims.

I became an educator to make a difference. This study gave me a platform to do just that; however, I needed to know the extent of the problem. To a great degree, I was not surprised at what I learned. Cyberbullying is a problem. It does not matter the lens--cyberbullying is a growing concern. I was not surprised that more students reported victimization than they did offending. This could be because bullies do not always consider their actions as bullying and to some extent victims may be prone to over exaggeration. I am not attempting to conflict with my belief that cyberbullying is a problem, I am merely stating my belief, based on nearly ten years working with secondary school students, that a true understanding of the definition is not always comprehended in the midst of a cyberbully situation.

The special education results concern me. Many of these particular students have enough struggles; they do not need to worry about someone picking on them because of their struggles. Furthermore, I believe victimization within special education students leads to cyberbullying others. These students, not all of them of course, are searching for a way to fit in with their peers and turning your frustration onto someone else seems like a way to gain needed stature within a peer group. I would be really interested in reading a study focused on perceptions of these students and the perception of regular education bullies.

My final reflection focuses on the ninth grade data and the large victimization and offending means. These data were reflected over a 30-day period. I would be interested in a three-year study that would survey the same students at the conclusion of their eighth grade, ninth grade, and tenth grade years concerning victimization and offending during the entire school year. I would not be surprised if the ninth grade year still returned a

higher mean of involvement. These data, as previously suggested, cause me to consider the transition period from eighth to ninth grade. Are these students searching for ways to adapt to high school? Do they find participating in cyberbullying as an easy way to fit in? I do not know the answer, but I believe this transition is a key proponent to the higher mean involvement.

I love working with secondary level students and now enjoy working with college age students. No matter the age, people are going to say or do hurtful things directed at others. I would venture to say at some point in everyone's life they have been a recipient of hurtful words or actions, and quite possibly have also delivered the same negative actions toward others. I know I have. I hope to help students from the survey understand the importance of kindness, compassion, and the power of a smile and gentle word; more importantly I want to teach my daughters these attributes. Cyberbullying is a problem; the teaching strategies we use to prevent involvement may just make a difference in someone's life.

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APPENDICES

Appendix A

Survey Instrument

Cyberbullying and Online Aggression Survey Instrument
2013 version

Sameer Hinduja, Ph.D. and Justin W. Patchin, Ph.D.
Cyberbullying Research Center (www.cyberbullying.us)

Cyberbullying is when someone repeatedly harasses, mistreats, or makes fun of another person online or while using cell phones or other electronic devices.

By completing this survey you agree to participate in this cyberbullying research study.

Circle your answer for each question.

	Never	Once	A few times	Several times	Many times
I have seen other people being cyberbullied	0	1	2	3	4
In my lifetime, I have been cyberbullied	0	1	2	3	4
In the last 30 days, I have been cyberbullied.	0	1	2	3	4

In the last 30 days, I have been cyberbullied in these ways…

	Never	Once	A few times	Several times	Many times
Someone posted mean or hurtful comments about me online	0	1	2	3	4
Someone posted a mean or hurtful picture online of me	0	1	2	3	4
Someone posted a mean or hurtful video online of me	0	1	2	3	4
Someone created a mean or hurtful web page about me	0	1	2	3	4
Someone spread rumors about me online	0	1	2	3	4
Someone threatened to hurt me through a cell phone text message	0	1	2	3	4
Someone threatened to hurt me online	0	1	2	3	4
Someone pretended to be me online and acted in a way that was mean or hurtful to me	0	1	2	3	4

--- Turn over ---

Circle your answer for each question.

	Never	Once	A few times	Several times	Many times
In my lifetime, I have cyberbullied others	0	1	2	3	4
In the last 30 days, I have cyberbullied others	0	1	2	3	4

In the last 30 days, I have cyberbullied others in these ways…

	Never	Once	A few times	Several times	Many times
I posted mean or hurtful comments about someone online	0	1	2	3	4
I posted a mean or hurtful picture online of someone	0	1	2	3	4
I posted a mean or hurtful video online of someone	0	1	2	3	4
I created a mean or hurtful web page about someone	0	1	2	3	4
I spread rumors about someone online	0	1	2	3	4
I threatened to hurt someone through a cell phone text message	0	1	2	3	4
I threatened to hurt someone online	0	1	2	3	4
I pretended to be someone online and acted in a way that was mean or hurtful to them	0	1	2	3	4

Gender? Male Female

Do you carry a cell phone to school? Yes No

Do you have access to the Internet at home? Yes No

Do you receive free or reduced lunch? Yes No

Do you receive special services or special needs classes at your school? Yes No

Grade Level? 6 7 8 9 10 11 12

Appendix B

District Permission

Dissertation Research

Rick Thomas <rthomas@[redacted]> Mon, May 12, 2014 at 7:28 AM

To: Chad Joice <cjoice@harding.edu>

Chad,

You are still welcome to conduct the surveys as discussed. You can work with the building principals directly to work out the specific details. I will scan our statistical information and send it to you this morning. If you need anything else please let me know.

We are getting real close to the end of another school year. It has been a very good year. We just wrapped up all of the testing so we are anxiously waiting to see how those turn out.

Good Luck with your research.

Rick

On Fri, May 9, 2014 at 10:20 AM, Chad Joice <cjoice@harding.edu> wrote:

Mr. Thomas,

I hope you and your family are doing well and that the school year is ending as well as it started. I am sure you are already considering additional ways to further improve upon the success of the faculty and students heading into next year.

I have recently completed chapter 2 of my dissertation and now move on to chapter 3. I wanted to confirm with you that it will still be acceptable for me to survey the 6-12 grade students at some point next semester regarding cyberbullying prevalence (if any) within the district. As we discussed about a year ago, my results will be shared with you and the other administrators in an effort to help address and prevent potential bullying within the district. If you are still agreeable with me conducting this survey within the [redacted] District please let me know.

In addition, chapter 3 includes specific information regarding the survey instrument, data

collected, and the process by which permission will be granted by parents and the overall surveying process. Also, I have a section in this chapter where I discuss the demographics of the district. Would you be able to share with me district and specific school demographics (i.e. number in each grade, gender breakdown, ethnicity, etc.)? I know these numbers will change when the new year begins and I can make the numerical adjustments at that time, but this years numbers will at least allow me to begin working on chapter 3.

Thank you so much for your consideration and help with my dissertation. My goal is to find time in the fall to conduct my research, this way I will not interfere with state testing in the spring. I hope to hear from you soon.

Chad Joice

Assistant Dean of Students
Harding University
cjoice@harding.edu
www.harding.edu

Appendix C

IRB Approval

Oklahoma State University Institutional Review Board

Date:	Friday, May 01, 2015
IRB Application No	ED1568
Proposal Title:	Do not be mean behind the screen: Cyberbullying prevalence in an Oklahoma school district
Reviewed and Processed as:	Expedited

Status Recommended by Reviewer(s): Approved Protocol Expires: 4/30/2016

Principal Investigator(s):

Chad Joice
, OK

Bernita Krumm
310 Willard
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☐ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1.Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms
2.Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3.Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4.Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Cordell North (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,

Hugh Crethar, Chair
Institutional Review Board

Appendix D

Parent Letter

Dear Parents or Guardians,

My name is Chad Joice, and I am currently a doctoral student at Oklahoma State University. Many of you may remember me from my time spent working as a teacher, coach, and administrator for [redacted] Public Schools from 2004-2012. Superintendent Rick Thomas has given me an opportunity, through my dissertation research, to survey students in grades six through twelve on their cyberbullying experiences. Cyberbullying is a growing concern, not just in Oklahoma but all across the globe. My hope and desire is to help school administrators better understand student experiences at [redacted] Middle School and [redacted] High School so that better avenues for prevention and teaching may take place.

The anonymous survey that I plan to administer, with the help of faculty and staff, will consist of 27 total questions about cyberbullying. The majority of questions are divided into two categories: cyberbullying victimization and cyberbullying offending. In addition, demographic information will be gathered to better understand each student's experiences (i.e. gender, grade level, free or reduced lunch, and special services). All surveys will be completely anonymous; students will be directed not to write their names on the survey instrument. Students will be encouraged to speak to you about their experiences with cyberbullying as well as with principals, counselors or teachers for help handling any situation they may face.

Finally, you do have the right to decline participation for your student(s) in this survey. If you decide you do not want your student(s) to participate, please contact me at 918-230-7238 or chad.joice@okstate.edu and I will ensure the administering teacher does not provide your student with a survey. Also, if you have any questions or concerns, feel free to contact me, my advisor Dr. Bernita Krumm, Associate Professor at Oklahoma State University (405-744-9445 or bernita.krumm@okstate.edu), or the Oklahoma State University IRB board (405-744-5700), and we will be happy to address those for you. In addition, you will find additional information regarding my research on the district website, [redacted].
Thank you for your help and support of this research.

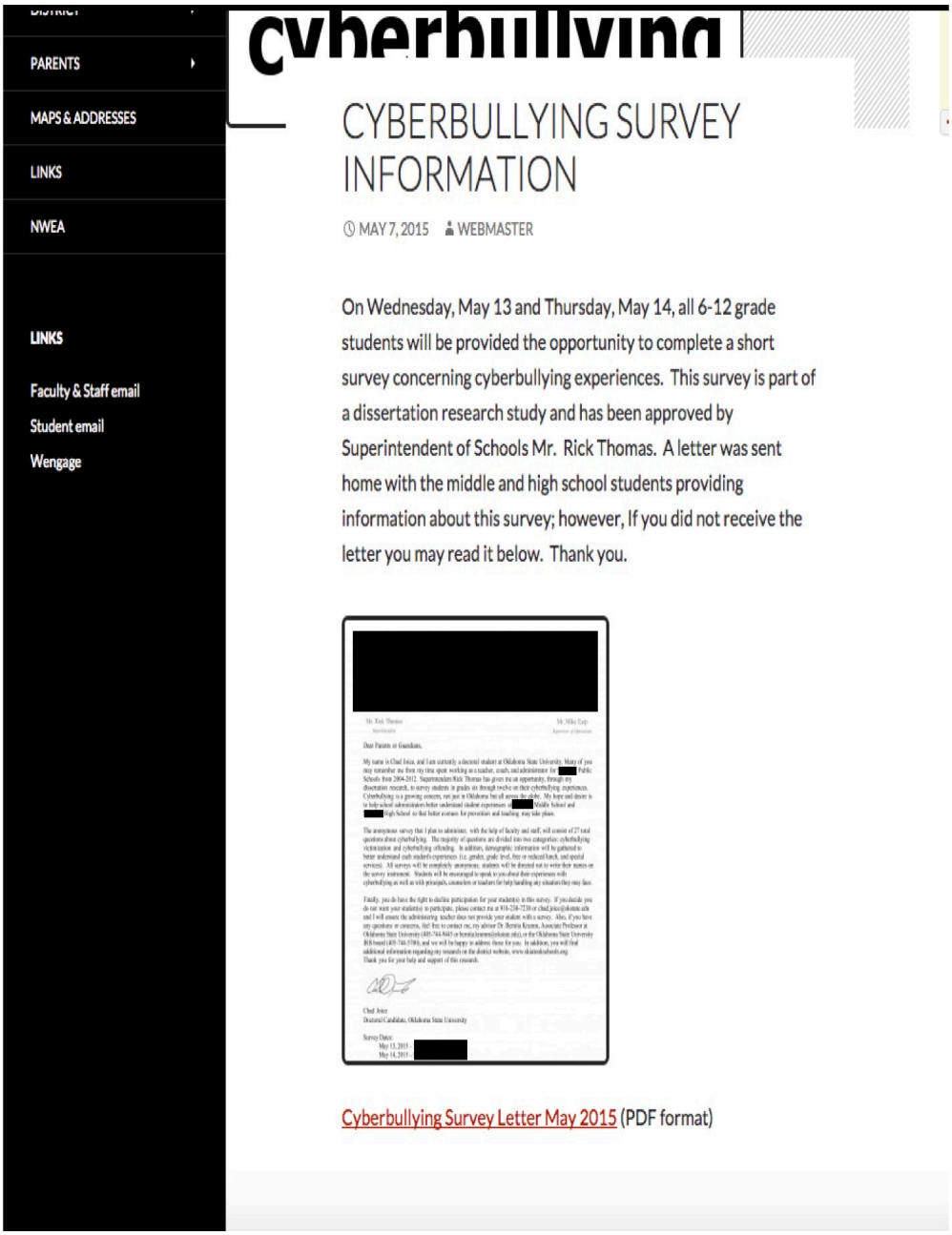
Chad Joice
Doctoral Candidate, Oklahoma State University

Survey Dates:

May 13, 2015 – [redacted] Middle School
May 14, 2015 – [redacted] High School

Appendix E

District Website Posting



Appendix F

Teacher Instructions

Thank you for helping administer this short survey today. There are a total of 27 questions. My hope is the survey completion will take only a small portion of your class period. The desire is that the results from this survey will help assist in preventing cyberbullying within your school. Results will be shared with district and building administrators through a meeting following my successful dissertation defense. You are welcome to contact me, Chad Joice at 918-230-7238, chad.joice@okstate.edu or my advisor Dr. Bernita Krumm, Associate Professor at 405-744-9445, bernita.krumm@okstate.edu if you have questions or concerns. Please follow the detailed instructions below.

1. Distribute surveys and student instruction forms to participating students. Ask that they leave the survey facedown until all instructions have been given.

2. Read aloud the Student Information form.

3. For students who decline participation, or students who you were notified that declined participation through their parents, please ask them to sit quietly and study or read while others complete the survey.

4. Before granting permission to begin the survey, re-read the definition of cyberbullying, remind students the survey is anonymous, and read the single direction "circle your answer for each question."

5. Remind students ***not*** to write their names on the surveys.

6. Ask students to work independently on the survey. You may assist them with reading any words, but to help maintain anonymity, please ***do not*** circulate throughout the room.

7. Direct students who complete early to turn their surveys facedown and sit quietly and study or read while others complete the survey

8. Collect the surveys and immediately place in the provided envelope and seal the envelope. Please ***do not*** look through the surveys.

9. Please return the sealed envelopes with surveys to the office by the end of the day if they have not already been collected.

Thank you again for your help today!

Appendix G

Student Instructions

Dear Student,

Today you are being asked to complete a survey about cyberbullying. Cyberbullying is when someone repeatedly harasses, mistreats, or makes fun of another person online or while using cell phones or other electronic devices. Your answers may help prevent cyberbullying at your school.

Your responses will be a secret; no one will know how you answered each question. Your name will not be written on the survey so I ask that you answer honestly. By answering the questions you agree to be a part of this study; however, you do have the right not to answer any questions. If you do not want to answer the questions, leave your survey blank and sit quietly.

Your teachers and principals will not see your answers. I will keep all the surveys in a safe location and destroy them after three years. I encourage you, if you have not ever done so, to speak to your parents, teachers, counselors or principals about your experiences. Let these individuals help you handle all cyberbullying situations.

Thank you for helping with this survey.

Chad Joice
Doctoral Student Oklahoma State University

Bernita Krumm, Ph.D.
Associate Professor Oklahoma State University

Appendix H

Survey Use Permission

On Feb 16, 2015, at 2:52 PM, Patchin, Justin W. <PATCHINJ@UWEC.EDU> wrote:

Hi Chad – you can use whatever aspects of the instrument are useful to your research. It is best to use each of the victimization and offending scales in their entirety (for validity/reliability reasons), but you certainly don't need to include the environment questions.
Thanks,

JP
--
Justin W. Patchin, Ph.D. Co-director, Cyberbullying Research Center
Professor of Criminal Justice
Department of Political Science
University of Wisconsin-Eau Claire 105 Garfield Avenue Eau Claire, WI 54702-4004
Ph: 715-836-4058
Twitter: @justinpatchin
http://www.justinpatchin.com http://www.cyberbullying.us/

From: Chad Joice [mailto:cjoice@harding.edu] **Sent:** Monday, February 16, 2015 2:32 PM **To:** Patchin, Justin W. **Subject:** Re: Cyberbullying Dissertation

Dr. Patchin,

As I was preparing to use your survey instrument that you so graciously allowed me to use, I noticed you had given me permission to "use/adapt." Would you be ok with me not including the online environment questions when I administer the survey? My proposal to my committee is based on the victimization and offending questions related to being cyberbullied.

Chad Joice

Assistant Dean of Students
Harding University
cjoice@harding.edu
501.279.4441
www.harding.edu

On Thu, May 15, 2014 at 2:47 PM, Patchin, Justin W. <PATCHINJ@uwec.edu> wrote:

Hi Chad,

Thanks for the note. Glad to hear that you are making progress on your dissertation. I've attached our cyberbullying instrument, which you are welcome to use/adapt. Just provide proper attribution.
All the best with your work!

Justin Patchin
-
Justin W. Patchin, Ph.D. Co-director, Cyberbullying Research Center
Professor of Criminal Justice
Department of Political Science
University of Wisconsin-Eau Claire 105 Garfield Avenue Eau Claire, WI 54702-4004
Ph: 715-836-4058 http://www.cyberbullying.us/

New book now available: "Words Wound: Delete Cyberbullying and Make Kindness Go Viral"
www.wordswound.org/book

From: Chad Joice [mailto:cjoice@harding.edu] **Sent:** Wednesday, May 14, 2014 3:30 PM **To:** patchinj@gmail.com **Subject:** Cyberbullying Dissertation

Dr. Patchin,

A little over a year ago I heard you speak in Tulsa concerning cyberbullying. After struggling with my dissertation topic, I left that workshop with a desire to pursue my research on cyberbullying. I have recently completed my chapter 1 and chapter 2 rough drafts and plan to begin chapter 3 in the coming days. I have used several of your research publications and data, but was wondering if you and Dr. Hinduja ever shared your survey instruments with other researchers. While my research goals may seem basic given the advancement in research regarding cyberbullying, I am hoping to survey a middle school and high school in a rural community in Oklahoma to determine cyberbullying prevalence. In addition I was hoping to include a small amount of questions to gauge the prevalence of traditional bullying among the same groups of students in order to compare; as well as, help this district understand what is taking place within their students lives and help develop plans for training and prevention. Thank you for your help. I look forward to hearing from you soon.

Chad Joice

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Appendix I

Victimization by Method Table

Percentage of Students Victimized by Different Online Methods

	Comments (Q4)	Picture (Q5)	Video (Q6)	Web Page (Q7)	Rumors (Q8)	Text (Q9)	Threats (Q10)	Imposter (Q11)
Overall	**25.9%**	12.1%	4.6%	4.0%	24.5%	23.1%	16.1%	12.1%
MS	**22.2%**	12.1%	4.7%	5.2%	21.5%	20.5%	13.3%	13.8%
HS	**27.8%**	12.1%	4.6%	3.3%	25.8%	24.0%	17.7%	11.0%
Male	18.8%	9.3%	4.1%	2.9%	18.8%	**18.9%**	15.1%	10.3%
Female	**32.5%**	15.0%	4.9%	5.1%	29.7%	26.6%	17.0%	13.9%
F/R Lunch	**29.2%**	13.8%	4.3%	3.7%	28.9%	26.8%	21.3%	13.8%
Not F/R	**23.4%**	11.0%	4.5%	4.0%	21.4%	20.3%	12.8%	11.0%
Sp Service	**39.2%**	22.7%	10.3%	11.3%	31.9%	35.1%	33.0%	27.8%
Not Sp Svc	**24.2%**	11.0%	3.9%	3.1%	23.3%	21.3%	14.1%	10.3%
6th Grade	**14.3%**	11.0%	4.2%	1.7%	**14.3%**	14.3%	7.6%	11.0%
7th Grade	**27.5%**	14.9%	7.8%	8.7%	24.4%	22.8%	18.2%	14.1%
8th Grade	23.9%	10.7%	2.5%	5.0%	**24.5%**	23.3%	13.9%	15.8%
9th Grade	**29.1%**	15.3%	6.9%	4.7%	28.6%	30.7%	21.7%	16.4%
10th Grade	**27.4%**	10.4%	4.4%	3.7%	24.5%	25.2%	19.3%	11.2%
11th Grade	**29.1%**	13.9%	3.9%	3.3%	25.8%	19.2%	16.5%	7.9%
12th Grade	**25.0%**	7.6%	3.8%	1.5%	24.3%	18.9%	12.1%	6.8%

Bold highlights the highest victimization percentage
Underline highlights the lowest victimization percentage
A key word from each question is used as a heading
Q followed by a number refers to a specific survey question

Appendix J

Offending by Method Table

Percentage of Offenders Displayed by Different Online Methods

	Comments (Q14)	**Picture (Q15)**	**Video (Q16)**	**Web Page (Q17)**	**Rumors (Q18)**	**Text (Q19)**	**Threats (Q20)**	**Imposter (Q21)**
Overall	**16.4%**	6.7%	2.6%	2.2%	6.8%	12.6%	8.7%	3.9%
MS	**13.1%**	7.1%	2.4%	2.0%	5.5%	8.2%	6.4%	4.2%
HS	**18.3%**	6.3%	2.8%	2.3%	7.8%	15.1%	10.2%	3.8%
Male	**13.5%**	6.7%	3.3%	2.0%	6.3%	13.1%	10.6%	4.0%
Female	**19.0%**	6.8%	*2.1%*	2.5%	7.2%	11.9%	7.0%	3.7%
F/R Lunch	**18.1%**	5.7%	1.4%	0.6%	6.8%	16.0%	12.2%	4.1%
Not F/R	**15.1%**	7.4%	3.5%	3.1%	6.7%	10.5%	6.7%	3.7%
Sp Service	**27.8%**	16.5%	8.3%	8.3%	18.5%	18.5%	16.5%	8.2%
Not Sp Svc	**14.6%**	5.5%	2.0%	1.4%	5.3%	11.6%	7.7%	3.1%
6th Grade	**10.1%**	6.7%	0.9%	2.5%	5.0%	4.2%	2.5%	5.0%
7th Grade	**16.5%**	7.0%	2.4%	3.2%	7.9%	8.7%	8.7%	3.2%
8th Grade	**12.6%**	7.5%	3.8%	0.6%	3.8%	10.7%	7.5%	4.4%
9th Grade	14.3%	9.0%	4.8%	4.8%	6.3%	**15.9%**	12.7%	4.2%
10th Grade	**17.8%**	3.0%	0.8%	0.7%	8.1%	17.0%	8.1%	2.2%
11th Grade	**21.9%**	5.3%	2.6%	2.0%	9.3%	16.6%	11.3%	5.3%
12th Grade	**20.5%**	6.8%	2.2%	0.8%	7.6%	10.6%	7.6%	3.0%

Bold highlights the highest offender percentage
Underline highlights the lowest victimization percentage
A key word from each question is used as a heading
Q followed by a number refers to a specific survey question

Appendix K

ANOVA Table for Victimization and SES by Grade Level

Analysis of Variance for Victimization Scores and SES among Grade Level

Grade	Source	SS	df	MS	F	Sig.
6th	Between Groups	2.701	1	2.701	0.370	0.544
	Within Groups	833.126	114	7.308		
	Total	835.828	115			
7th	Between Groups	23.457	1	23.457	1.431	0.234
	Within Groups	2015.615	123	16.387		
	Total	2039.072	124			
8th	Between Groups	5.402	1	5.402	0.259	0.612
	Within Groups	3255.136	156	20.866		
	Total	3260.538	157			
9th	Between Groups	22.027	1	22.027	0.497	0.482
	Within Groups	8292.047	187	44.342		
	Total	8314.074	188			
10th	Between Groups	11.378	1	11.378	0.482	0.489
	Within Groups	3139.926	133	23.608		
	Total	3151.304	134			
11th	Between Groups	47.613	1	47.613	2.630	0.107
	Within Groups	2697.791	149	18.106		
	Total	2745.404	150			
12th	Between Groups	0.650	1	0.650	0.31	0.861
	Within Groups	2748.869	131	20.984		
	Total	2749.519	132			

Appendix L

ANOVA Table for Offending and Gender by Grade Level

Analysis of Variance for Offender Scores and Gender among Grade Level

Grade	Source	SS	df	MS	*F*	Sig.
6th	Between Groups	0.476	1	0.476	0.295	0.588
	Within Groups	189.171	117	1.617		
	Total	189.647	118			
7th	Between Groups	2.337	1	2.337	0.345	0.558
	Within Groups	832.271	123	6.766		
	Total	834.608	124			
8th	Between Groups	1.532	1	1.532	0.646	0.423
	Within Groups	365.134	154	2.371		
	Total	366.667	155			
9th	Between Groups	21.307	1	21.307	0.696	0.405
	Within Groups	5691.544	186	30.600		
	Total	5712.851	187			
10th	Between Groups	3.283	1	3.283	0.390	0.533
	Within Groups	1119.710	133	8.419		
	Total	1122.993	134			
11th	Between Groups	1.413	1	1.413	0.061	0.805
	Within Groups	3458.309	149	23.210		
	Total	3459.722	150			
12th	Between Groups	1.129	1	1.129	0.084	0.773
	Within Groups	1764.179	131	13.467		
	Total	1765.308	132			

Appendix M

ANOVA Table for Offending and SES by Grade Level

Analysis of Variance for Offending Scores and SES among Grade Level

Grade	Source	SS	df	MS	*F*	Sig.
6th	Between Groups	2.039	1	2.039	1.244	0.267
	Within Groups	186.926	114	1.640		
	Total	188.966	115			
7th	Between Groups	0.954	1	0.954	0.141	0.708
	Within Groups	833.654	123	6.778		
	Total	834.608	124			
8th	Between Groups	0.020	1	0.020	0.009	0.927
	Within Groups	367.524	156	2.356		
	Total	367.544	157			
9th	Between Groups	54.709	1	54.709	1.807	0.180
	Within Groups	5660.952	187	30.272		
	Total	5715.661	188			
10th	Between Groups	2.727	1	2.727	0.324	0.570
	Within Groups	1120.265	133	8.423		
	Total	1122.993	134			
11th	Between Groups	68.610	1	68.610	3.015	0.085
	Within Groups	3391.111	149	22.759		
	Total	3459.722	150			
12th	Between Groups	8.399	1	8.399	0.626	0.430
	Within Groups	1756.909	131	13.412		
	Total	1765.308	132			

VITA

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