P-12 PRESERVICE TEACHERS’ AWARENESS ON CYBERBULLYING

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ABSTRACT

The purpose of this study was to explore P-12, elementary, secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations on cyberbullying prevention and intervention prior to and post an intervention model. Using a quantitative research design, this study explored P-12, elementary, and secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations regarding cyberbullying prior to and post an intervention model presented to the preservice teachers.

The findings of this study offer results from the pre/post test surveys based on the preservice teachers gender, classification, and year in program. Also, results were classified by subscales (beliefs, concerns, confidence levels, and preparations) based on the survey questions. No multivariate significance was discovered for between subjects main effects of gender, classification (year in program), or program.

There was no statistically significant multivariate between subjects’ interaction effects of gender by year, gender by program, year by program, or gender by year by program. The Steps to Respect Program did not increase the preservice teachers concerns, confidence levels, or preparations. However, the program did significantly increase the preservice teachers’ beliefs about cyberbullying.
DEDICATION

I would like to dedicate this dissertation to the ones who motivated me to succeed through this process, my husband, son, and mother. Your support has been priceless and steadfast. You are all precious to me. I love you with all my heart.

To my dad, Jere Shearin (September 22, 1940-January 16, 2012), thank you for always being encouraging and supportive of me. I love you and miss you, dad.
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CHAPTER I:
INTRODUCTION

Technology has been used by a variety of people around the world regardless of age, race, or socioeconomic background (Yilmaz, 2010). Students in today’s society have more access to technology in school as well as at home (Yilmaz, 2010). Teachers are encouraged to use technology to enhance their teaching in the classroom (Ertmer & Ottenbreit-Leftwich, 2010). Social and political debates have escalated over issues regarding the regulation of technology. Legislatures, courts, corporations, and school districts have grappled with how to deal with the unique uses of the Internet. One of the big issues “was the balance to be struck between ‘free speech’ and the ability of families, employers, schools or other organizations to protect themselves against the receipt of material that is unwanted, illegal or both” (Carr, 1998, p.70). Other issues in cyberspace include privacy invasion, slander, and aggression (Dunn, 2002; Postrel, 1998). According to Hudson (2008), the United States government created laws such as the Communications Decency Act, the Child Protection Act, and the Children’s Internet Protection Act, which limited the content of Internet speech or required the filtering of Internet content in libraries and schools. The concern of First Amendment rights of students entrenched in the relationship of speech via the Internet has become an intricate one for educational leaders (Hudson, 2008). For many years, the courts have addressed First Amendment challenges to the regulation of speech in schools (Hudson, 2008). An example was the landmark 1969 decision, *Tinker v. Des Moines Independent Community School District*, 393 U.S. 503 (1969), in which the United States Supreme Court stated that students in public schools do not shed their free-
expression rights at school (Hudson, 2008). Many students now employ the Internet as a tool to convey varied viewpoints, including serious, often offensive comments about their schools, teachers, and peers. Recently, there has been concern about school administrators being able to use their authority over students’ personal computers (Hudson, 2008).

Legal developments in the regulation and jurisdiction of the Internet and school policies governing its use are the subject of a growing number of lawsuits. Constitutional, judicial, and statutory mandates protect student rights. School district policies delineate student conduct expectations. Carvin’s (2000) concerns for school security liability for student safety caused educators to be more vigilant of students’ expression, particularly via the use of computers and the Internet, both inside and outside of school walls. Balancing student safety in the real world with student rights in cyberspace have required preventative disciplinary measures (Carvin, 2000). Some school authorities have become “hypersensitive…cracking down on less-than-threatening student on-line activities that occur outside the classroom” (Carvin, 2000, p. 2).

The belief that cyberbullying is just fun and games enabled children to rationalize their participation as aggressors (Hoover, Oliver, & Hazler, 1992; Owens, Slee, & Shute, 2000; Rigby & Slee, 1991). Moreover, the belief that adults rarely intervene lead children to conclude that one can bully with impunity (Frey et al., 2005). There is no doubt that the increased and widespread use of the Internet creates a multitude of new and complex ideas for the legal system in this country to consider (I-Safe America, 2002). While invasion of privacy, harassment, the utterance of threats, fraud, and dishonesty are not new problems in society, the Internet is another outlet for these shared ills. E-mail privacy, online copyright, computer viruses, hacking, spam, online pornography, software piracy, and Internet censorship are topics rarely heard of ten years ago, but are now commonplace (I-Safe America, 2002). These issues have affected various venues
across the country, including educational settings. These issues pose new challenges for policy setting. With perhaps more zeal than their adult counterparts, the youth in this country embrace the capabilities offered by the Internet. It is evident that they need protection from the perils that this new, “open” world has to offer. News stories about the negative effects of the Internet have reported children being exposed to pornography, children being tricked into giving out personal information, and children being kidnapped and/or murdered by people who they had initially “met” online through “chat rooms” (I-Safe America, 2002). Daniel (1998) expresses how students have access to violent Internet sites that perhaps contribute to the planning of murders of fellow students. Many times websites are abused for copyright infringement to download papers and music (Daniel, 1998; Daniel & Pauken, 2002). In all these reported examples, the Internet was used in some way to plot, threaten, or deceive. Internet technology, in some circumstances, offers a perpetrator the opportunity to remain anonymous (Daniel, 1998; Daniel & Pauken, 2002).

**Traditional Bullying in the School**

Olweus (1993) stated that there are two types of bullying: direct and indirect. If a person has negative actions repeated towards him or her time after time then bullying has occurred (Olweus, 1993). Direct bullying is identified as being attacked physically by another person. Indirect bullying occurs when a person is isolated socially from a group (Olweus, 1993; Griezel, Craven, Yeung, & Finger, 2008). Many students who are bullied either through a direct or an indirect manner do not communicate the incident to parents or educators. According to Li (2008), students do not communicate with teachers, parents, or school administrators. Educators are familiar in their respective schools with traditional bullying occurrences. Therefore, the school should be a place where every child should feel safe (Hinduja & Patchin, 2007). Children
may feel safe if a bullying intervention program is properly enforced. An effective program consistently applied reduces the fear that bullies cause and develops a foundation in which students can work to create a positive culture with caring behaviors. Cyberbullying mirrors many of the same factors of traditional bullying (Hinduja & Patchin, 2007).

**Definition of Cyberbullying**

Cyberbullying involves the utilization of information and communication technologies such as e-mail, cell phone and pager text messages, instant messaging, defamatory personal Web sites, and offensive online personal polling Web sites, that uses hostile behavior by an individual or group that is intended to harm others (Belsey, 2004). Comments posted on social networking sites such as Facebook, Twitter, and Instagram can influence students’ behavior in school (Feinberg & Robey, 2008, p. 10). The school system may not be able to interfere if cyberbullying occurs after school hours or off school property (Anderson & Sturm, 2007).

Schools have restricted access to discipline when the cyberbullying occurs after school hours, unless cyberbullying comes into the school or threatens the school. These disruptions that come into school sometimes have legal consequences (Bartsch & Cheurprakobkit, 2002). Cyberbullying has no limitations. It can happen anytime, day or night. It can happen to any student regardless of race or socioeconomic background. The most significant part of cyberbullying is that the bully remains anonymous online which is very different from traditional face-to-face bullying (Keith & Martin, 2005; Sparling, 2004). While cyberbullies can remain anonymous, the effect of repeated harassing, bullying, or sending messages can cause physical and psychological damage to the recipient long after the incidents of ridicule have ended (Willard, 2007). Research suggests educational professionals should be trained to recognize and respond to online harassment (Wolak, Finkelhor, Mitchell, & Ybarra, 2008).
Statement of the Problem

According to Wright, Burnham, Inman, and Ogorchock (2009), it is time that we, as a society, make cyberbullying a priority because the effects can be detrimental. Opportunities for education about cyberbullying should be given to teachers, teacher educators, administrators, counselors, mental health professionals, students, and parents (Wright et al., 2009). By addressing multiple audiences, teachers can help prevent cyberbullying, and be better equipped to identify cyberbullying as a growing problem in our society (Cornuke, 2012; Wright et al., 2009). True concern for students’ learning and well-being is the common threading that unites teaching with learning (Cornuke, 2012). In 2008, the National Cyber Security Alliance conducted a cyberethics, cybersafety, and cybersecurity baseline study to explore educational awareness, policies, curriculum and practices taking place in the United States. Researchers collected data from 1,569 public and private K–12 educators and 94 technology coordinators in an online survey (Kaiser & Jones, 2008). In addition, 219 educators, technology coordinators, and directors participated in focus groups for the study. Findings indicated that less than five percent of educators claimed that cyber education was included in their state curriculum (Kaiser & Jones, 2008). Less than three percent of the educators indicated their state curriculum includes information on teaching students how to protect themselves on social networking sites and chat rooms (Kaiser & Jones, 2008). With regard to teacher preparedness, 75% of the participants did not feel comfortable discussing cyberbullying, and less than 32% felt comfortable giving guidance on cyber safety (Kaiser & Jones, 2008). Lastly, 39% of the technology coordinators stated they implemented external Internet safety curriculum such as i-SAFE or Cyber Smart (Kaiser & Jones, 2008). This clearly highlights the need to better understand the experiences of educators in dealing with cyberbullying.
Since cyberbullying occurs both inside and outside of schools, teachers can play an important role in addressing the problem of cyberbullying (Li, 2008). The negative effects that cyberbullying has on its victims can directly or indirectly impact their learning. Technology is available to students every day in various forms. It presents various positives and negatives for teachers in the classrooms. According to Barak (2005), the negative opportunities may turn into common practices for some students. There is a need to educate preservice teachers on the issues of cyberbullying prior to their entering the P-12 education classroom (Li, 2008). According to Li (2008), a good comprehension of teachers’ (including pre- and in-service teachers’) awareness and attitudes related to cyberbullying is important before researchers can understand the issue of cyberbullying intervention. It is important that teachers are aware of cyberbullying and dedicated to learning about prevention strategies so that cyberbullying/bullying can be reduced (Olweus, 1993). Li (2008) emphasizes teachers’ awareness and beliefs play an important role in teaching. Also, teachers’ perceptions are very important in teaching practices with regard to developing and managing skills and knowledge about cyberbullying (Li, 2008). According to Yilmaz (2010), it is fundamental to instruct preservice teachers about cyberbullying and examine their perceptions prior to entering the classrooms in order to prevent cyberbullying in the classrooms. Olweus (1993) reported that teachers could help reduce bullying/cyberbullying issues in schools by 50% just by awareness and being dedicated to cyberbullying prevention.

Purpose

The purpose of this study was to explore P-12, elementary, and secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations on cyberbullying prevention and intervention prior to and post an intervention model.
Conceptual Framework

The Steps to Respect program, as described by Frey et al. (2005), was used as a process evaluation to frame the current study. According to Fitzpatrick, Sanders, and Worthen (2004), a program evaluation approach helps to determine the value of the object being evaluated. A program evaluation approach uses methods of analysis by (a) establishing standards by which to judge program quality, (b) providing the collection of relevant information, and (c) applying those standards to the program in an effort to establish its effectiveness, significance, or value (Fitzpatrick et al., 2004).

There are five basic approaches to program evaluation suggested by Fitzpatrick et al. (2004). These approaches are objectives-oriented, management-oriented, consumer-oriented, expertise-oriented, and participant-oriented. A participant-oriented approach was used for this study. Participant-oriented approaches place much emphasis on the needs of the program participants (Fitzpatrick et al., 2004). Fitzpatrick et al. (2004) stated that two basic types of program evaluation are most often used in the field of research: formative and summative. A formative approach is used when the purpose of the evaluation is to determine the need for program improvement (Fitzpatrick et al., 2004). A summative approach to program evaluation focuses on gathering and providing information as to the program’s overall value and its worth of continuation (Fitzpatrick et al., 2004).

The Steps to Respect program was designed by the Committee for Children in 1997 to decrease school bullying. Even though the Steps to Respect program focused on bullying the same steps can be applied for recognizing cyberbullying issues. For this current study, this framework consists of a four-step process used as an intervention model for preservice teachers on dealing with cyberbullying in the classroom. Step 1 is increasing adult monitoring and
intervention in cyberbullying events. Li (2008) recommends that a teacher education program to include information about cyberbullying, which is not currently a core component. Instructional staff should receive training to help easily identify troubled students (Frey et al., 2005). According to the Committee for Children (2001), teachers’ awareness and responses to bullying/cyberbullying improved after implementation of an intervention program was in place. Implementation of an intervention program may be an effective tool that educators can use to decrease cyberbullying/bullying and help students build more positive relationships (Frey et al., 2005). Step 2 is improving systemic supports for socially responsible behavior. Teachers need to be prepared to supervise students learning when using technology in the classroom (Patchin & Hinduja, 2006). Step 2 is designed to help foster a safe and friendly classroom environment. This step also helps teachers recognize the negative outcomes associated with cyberbullying. Rejection by peers is related to multiple negative outcomes such as school dropout, relationship difficulties, and mental health problems (Cowen, Pederson, Babigian, Izzo, & Trost, 1973; Parker & Asher, 1993). Step 3 is changing student normative beliefs that support cyberbullying. Frey et al. (2005) proposes that teachers develop classroom lessons that focus on “empathy, problem solving, and practicing assertiveness skills” (p. 468). Preservice education is a time of intense study of teaching, instruction, curricula, policy and administration (Ryan, 2009). During step 3, the intervention model trains teachers how to develop instruction for their respective classrooms for cyberbullying prevention. Step 4 is addressing student social-emotional skills that counter cyberbullying and support social competence. Preservice teachers need to be aware that one-on-one counseling may be needed for their students if their students are in a cyberbullying encounter (Frey et al., 2005). Preservice teachers should be aware that, as teachers,
individualized sessions and effective strategies should be put into place to help support the students participating in bullying/cyberbullying episodes.

Brief individual coaching sessions with each participant in bullying episodes are intended to provide solution-oriented responses to immediate and long-term student needs. Coaching protocols (one for perpetrators, one for targets of bullying) provide strategies to establish facts, empower students to avoid future problems, and assess effectiveness. (Frey, Heirschstein, Edstrom, & Snell, 2009, p 468).

**Research Questions**

The primary research questions addressed in this study included the following:

1. Is there evidence of construct validity in the survey on school cyberbullying for preservice teachers;
2. Is there a change in preservice teachers’ concerns, confidence levels, beliefs, and preparations of cyberbullying after an intervention has been presented to the preservice teachers; and
3. Is there a difference between elementary and secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations regarding cyberbullying before and after the cyberbullying intervention for preservice teachers?

**Significance of the Study**

This study was important because research has demonstrated (Li, 2008) that teacher education programs should create more awareness with P-12 preservice teachers prior to them entering the classroom about cyberbullying prevention and intervention. Teachers play a very important role in recognizing cyberbullying in their classrooms. Cyberbullying is a growing phenomenon. It is important that the preservice teachers be aware of what lies in the classroom ahead of them other than lesson plans, grades, dress code, hall duty, and lunchroom duty (Barak, 2005). With the advances and availability in technology, cyberbullying has become more
commonplace (Barak, 2005). Proper training for perspective teachers is important in this process (Barak, 2005). Many students do not share their cyberbullying incidents with adults (Li, 2007). Mishna, Saini, and Solomon (2009) propose several reasons why the students hide the fact that they are being cyberbullied. First, students think they will lose computer access privileges at home. Second, adults would make the cyberbullying situation worse for the student by bringing attention to the situation (Mishna, Saini, & Solomon, 2009). Last, teachers would disregard the cyberbullying incidents since they take place off school grounds. For the reasons listed above, teachers and parents should be very aware of the cyberbullying incidents going on in the students’ lives (Mishna, Saini, & Solomon, 2009). Teachers are with the students more than their parents, counselors, or administrators (Mishna, Saini, & Solomon, 2009). It is important to educate the future teachers what to look out for in their future classrooms (Mishna, Saini, & Solomon, 2009).

**Definition of Terms**

*Aggression*: behavior that results in personal injury and in destruction of property. The injury may be psychological (in the form of devaluation or degradation) as well as physical (Bandura, 1973, p. 5).

*Bullying*: an aggressive physical or verbal attack (Slonje & Smith, 2008). When a person is “exposed, repeatedly and over time, to negative actions on the part of one or more other students” (Olweus, 1993).

*Cyberbullying*: online aggravation that is made through the Internet (Slonje & Smith, 2008) or a digital attack defined by Belsey (2004) as the use of information and communication technologies such as email, 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.

*Cyberspace:* area in which people communicate with one another. Files and objects are located in this area (Webopedia.com, 2010).

*Cyberstalking:* a crime in which the attacker harasses the victim through electronic communication such as e-mail, instant messaging, or posts messages on a website or a discussion board. A cyberstalker relies on the anonymity of the Internet to allow them to stalk their victims without detection (SearchSecurity.com, 2010).

*Cyberthreat:* can be a direct “intent to hurt someone or commit suicide” or distressing “clues that the person is emotionally upset and may consider hurting someone, self-harm, or suicide” (Willard, 2007, p. 11).

*Denigration:* posting or sending altered digital images. Speech that is “harmful, untrue, or cruel” (Willard, 2007, p. 7).

*E-mail:* short for electronic mail, the transmission of messages over communications networks. (Webopedia.com, 2010).

*Flaming:* a written attack on someone else online (Webopedia.com, 2010).

*Harassment:* cruel or mean messages often occurs via instant messaging, email, or text messages. (Willard, 2007, p. 6).

*Impersonation:* pretending to be someone or sharing information that reflects badly on someone else interfering with that person (Willard, 2007).

*Netiquette:* “etiquette on the Internet” (SearchSecurity.com, 2012).

*Preservice Education:* preservice teacher education is used as a guide to shift the teachers’ past experiences as students in classrooms to their future experiences as teachers in
classrooms. From those experiences, teachers develop the ideas that will guide their future practices in their classrooms.

*Social networking:* the practice of increasing the amount of one’s social contacts either for business or social purposes via online communications such as MySpace, Facebook, Bebo, and Twitter (SearchSecurity.com, 2010).

*Sexting:* sending or receiving sexually-explicit pictures and messages usually between cell phones (SearchSecurity.com, 2010).

*Spam:* electronic junk mail that goes directly into a person’s electronic mail (Webopedia.com, 2010).

**Assumptions**

1. Participants answered the survey honestly.
2. Preservice teachers assume that cyberbullying was not part of their curriculum.

**Limitations**

1. The study was limited to one area in one southeastern state and may not fully represent P-12 preservice education across the state.
2. There was a limited amount of time for the intervention steps to be presented.

**Organization of the Study**

The study is organized and divided into five chapters. Chapter I explained the importance of the problem, the purpose of the study, and the definitions needed for the study. Chapter II provides a review of the literature referencing studies on cyberbullying as they relate to the importance of the awareness of the increasing problem of cyberbullying. Chapter III focuses on the methodology used to perform the study. Chapter IV presents the results of the data collected from the surveys. Chapter V presents the final results and overarching ideas for future research.
CHAPTER II:
LITERATURE REVIEW

**Growth of Cyberbullying**

Cyberbullying can be defined as repeatedly harassing an individual through electronic messages by a person who knowingly and willingly wants to cause harm to the individual (Hinduja & Patchin, 2010). Due to the ability to be harassed online 24/7, students have an increased fear of bullying from cyberbullying compared to traditional bullying (Kowalski & Limber, 2007). Many studies are being done on the dangers of cyberbullying. A study, using an online survey to collect information on 17-year-old students by Patchin and Hinduja (2006) “involved an analysis of youthful Internet users in an effort to assess their perceptions of, and experiences with, electronic bullying” (p. 156). Sixty-seven percent of the individuals who participated in the online survey were older than 17 years of age and were referred to as the “youth sample” (Patchin & Hinduja, 2006).

The study completed by Patchin and Hinduja (2006) had several limitations. One limitation was that all data for the study were collected using an online, web-based format. Second, the sample included in the study was a convenience sample. The survey was posted on a number of Internet sites where an assumption was made that a large, diverse number of adolescents made visits. The overall sample was homogeneous, as 78.3% were female, 74.4% were Caucasian or white, and 60.5% were from the United States. Third, the authors do not know if respondents were completely honest or accurate in answering the questions (Patchin & Hinduja, 2006).
In a study of cyberbullying by Li (2007), the researcher sought to achieve three objectives. One objective was to examine the bullying experiences of teenagers. A second objective was to investigate teenagers’ thoughts of school safety measures. The third objective was to determine teens’ relationships and experiences of cyberbullying (Li, 2007).

The researcher used an anonymous survey instrument composed of twenty-six (26) questions in two parts: student demographic data and student experience related to cyberbullying (Li, 2007). Survey participants were drawn at random from two middle schools in a large Canadian city in Western Canada. One hundred seventy-seven students in the seventh grade (male = 80; female = 97) completed the survey (Li, 2007). Demographic data collected by the survey indicated that 7.6% of the students were English as Second Language, 69.7% were white, approximately 20% were Black, Hispanic, Aboriginal, or other and 9% were Asian. Results indicated that 53.7% of seventh graders surveyed had been bullied and that 24.9% had been cyberbullied (Li, 2007). Approximately 31.8% of seventh graders who had been cyberbullied indicated having been bullied by school mates, 11.4% cyberbullied by someone other than schoolmates, and 15.9% indicated having been cyberbullied by a variety of sources (Li, 2007). The results showed that 59.1% of seventh graders surveyed had been cyberbullied 1 to 3 times, 18.2% had been cyberbullied 4 to 10 times, and 22.7% had been cyberbullied more than 10 times (Li, 2007). Additionally, those who engage in cyberbullying indicated that 43.5% cyberbullied others less than 4 times, 30.4% indicated having been cyberbullied others 4 to 10 times, and 26.1% indicated having been cyberbullied others more than 10 times (Li, 2007).

A study by Williams and Guerra (2007), which was a part of a larger statewide initiative by the state of Colorado, called the Bullying Prevention Initiative (BPI) examined cyberbullying with two objectives in mind. The first objective was to compare and contrast cyberbullying
(specifically Internet bullying) with the more traditional forms of verbal and physical bullying among boys and girls in elementary, middle, and high school grades. The second objective was to determine whether certain predictors for verbal and physical bullying could be used to predict cyberbullying (Williams & Guerra, 2007). In fall 2005, a total of 3,339 students from 78 schools throughout Colorado responded to the questionnaire designed by the researchers. In spring 2006, 2,293 students from 65 schools, who were also in the original sample, completed the questionnaire (Williams & Guerra, 2007). In both instances, only students in 5th, 8th, and 11th grades participated in the study.

Researchers then took a subsample of the surveys, to ensure data quality, using two criteria: schools must have completed data collection in both fall and spring, and parental consent and questionnaire complete rates must be at least 50% (Williams & Guerra, 2007). The data collection procedures resulted in a total of 1,519 completed questionnaires from students in grades 5, 8, and 11 from 46 schools throughout the state of Colorado (Williams & Guerra, 2007). Of the completed questionnaires, 55% of the subsample was female, and 54% of the total sample was female. Males accounted for 45% of the subsample and 46% of the total sample (Williams & Guerra, 2007). Surveys results showed that verbal bullying was the most common form of bullying (70.7%), followed by physical bullying (40.3%), and then Internet bullying (9.4%). An important finding, however, was that middle school students in 8th grade experience the highest percent of Internet bullying (or cyberbullying) at 12.9%, compared to 4.5% of 5th graders and 9.9% for 11th graders (Williams & Guerra, 2007).

Ybarra and Mitchell’s study in 2007 reported that approximately 29% of young Internet users had harassed someone online at least once in the previous year. Ybarra and Mitchell (2004a) reported that 81% the students surveyed said that someone else instigated harassing or
embarrassing someone on the Internet, 31% reported harassing someone else first at least once, and 84% knew their targets personally. Kowalski and Limber (2007) found that only 4% of students reported cyberbullying someone else at least once in the previous two months. Wright et al. (2009) reported that 14.9% of the middle school students in their study had cyberbullied someone.

Research has linked victims of traditional bullying and cyberbullying. For example, youth who were victims of traditional bullying were more than 2.5 times as likely to also be victims of cyberbullying (Hinduja & Patchin, 2008). Kessel Schneider et al. (2012) also reported that almost 60% of cyberbullying victims were also school bullying victims. Older aged youth reported cyberbullying victimization rather than younger aged youth (Hinduja & Patchin, 2008; Mesch, 2008). Studies have indicated that compared to other grade levels, middle school and high school students were more likely to report cyberbullying (Bradshaw, Sawyer, & O’Brennan, 2007). Older students may experience more cyberbullying incidences due to greater access to the Internet and other electronic devices. Kowalski and Fedina (2011) concluded in a study of 42 adolescent children, diagnosed with ADHD and/or Asperger’s Syndrome, 21% of those special needs students had been cyberbullied within the past two months.

**Gender Roles in Cyberbullying**

In her column on cyberbullying, Cooper (2004) detailed that online comments generally abuse boys via homophobic comments, while girls are labeled as sexually immoral. Although girls inflict more virtual abuse through messaging, online journals, and online conversations, boys are more likely to make online threats or create websites targeting others (Cooper, 2004). While cyberbullies can reach victims via computers and cell phones, Cooper (2004) cautioned against the bully you may not know, your best friend. Research suggests some strategies to
combat cyberbullying such as schools creating acceptable Internet etiquette as well as creating a safe social climate for students. Other strategies include advice that parents should remove Internet connections from the bedrooms of the children, and learn whether the Internet provider can track and shut down online bullies on home computers (Cooper, 2004).

Rodkin and Hodges (2003) reported in a study of fourth to sixth grade boys were more aggressive. On the other hand, two-thirds allied in groups where over 50% of the members were nonaggressive. This phenomenon was not as prominent with girls; however, still one-half of aggressive girls in the same study were part of groups whose members were over 50% nonaggressive as well. Rodkin and Hodges (2003) concluded that hostile girls were more likely to fit the unexpected peer framework, perhaps because aggression is a less normative behavior among girls and aggressive girls are more likely to be segregated away from the conventional peer ecology.

Mouttapa, Valente, Gallaher, Rohrbach, and Unger (2004) asserted that the types of bullying that males and females engage in vary. Males are more often involved in physical forms of bullying whereas females are more often involved in indirect forms of bullying such as relational bullying. These findings were confirmed by Wang, Iannotti, and Nansel (2009). Males are more tolerant of indirect forms of aggression than are females (Mouttapa et al., 2004). The study also found that male bullies did not differ from other males on measures of sociometric status; however, female bullies, while seemingly having fewer friends, tend to report strong ties to the friends in their networks (Mouttapa et al., 2004).

Rodkin and Berger (2008) proposed that most bullies are boys, but that bullying in the twenty-first century victims are both boy and girls. Rodkin and Berger (2008) also noted that although male-male aggression is more prevalent than male-female aggression there is ample
reason to expect that children would name a substantial proportion of boys bullying girls when given the opportunity. One of the advantages of the *who bullies whom* measure, which asks children to identify bullies together with the children whom each bully most often harasses, is that children can spontaneously nominate mixed-sex dyads (Rodkin & Berger, 2008). They asserted that in middle childhood boys and girls rarely choose each other as best friends or affiliate in the same groups, but that negative relationships are quite apparent. Rodkin and Berger (2008) hypothesized that when they asked *who bullies whom* that they would find examples of cross-gender bullying.

In addition, they hypothesized that the typical male on male bullying pattern of powerful bully and powerless victim would not characterize cases where boys bully girls at least in regard to psychological power. Thus, Rodkin and Berger expected to find that social status indicators would favor male bullies whose victims are mainly boys, but not those who predominately target girls. For their study, Rodkin and Berger (2008) surveyed 508 fourth and fifth grade children recruited from two elementary schools in the midwestern part of the United States. The students sample surveyed consisted of 275 boys and 233 girls ages 10-11. Interestingly, across both assessments children named over twice as many male-female as male-male bully-victim dyads which runs counter to the generally accepted belief that males at the ages surveyed mostly bully other males (Rodkin & Berger, 2008).

As hypothesized, Rodkin and Berger (2008) found that boys who mainly bullied other boys were popular according to teachers and peers, but boys who mainly bullied girls were unpopular. Further, female victims had high social status whereas male bullying in the twenty-first century victims did not. Rodkin and Berger’s (2008) findings concluded that most preadolescent girls who are victims point to boys as the perpetrators; it would be surprising if
social status dynamics between bullies and victims were not sensitive to victim gender. Male-female bullying does not directly contradict the classic power imbalance criterion postulated by Olweus (1978) given the physical power difference between boys and girls (Rodkin & Berger, 2008). Rodkin and Berger (2008) summarized by reiterating that while boys who bully other boys fit the classic pattern of a popular bully and an unpopular victim, boys who bully girls showed the opposite pattern of an unpopular bully and a popular victim (Rodkin & Berger, 2008). In a case of cross-gender bullying, the bully might have physical power over the victim, but not the psychological power that high social status confers (Rodkin & Berger, 2008). Rodkin and Berger (2008) urged educators to be attentive to the characteristics and safety of popular girls and to take reports of harassment seriously.

Sawyer, Bradshaw, and O'Brennan (2008) also suggested that in regard to gender differences in frequent victimization, that most studies using a definition based measure of bullying show that boys are more likely to report frequent victimization. Girls are more likely to report bullying than boys. Girls tend to report direct forms of victimization such as rumor spreading while boys report more direct forms such as hitting (Sawyer et al., 2008). One result of this difference might be discrepancies in reporting on behavior based measures that specify relational forms of bullying versus definition based forms that include the word bullying which is traditionally defined as a physical act (Sawyer et al., 2008).

According to these studies, bullying may be interpreted differently by gender. Males and females tend to view bullying from varying perspectives (i.e., females report bullying as rumors, while males report bullying as physical altercations).
Ethnicity Roles in Cyberbullying

Although there is clearly a need for additional research on the influence of ethnicity on cyberbullying and victimization few studies have shed light on this issue. Mouttapa et al. (2004) reported that the ethnic compositions of the classroom appear to have a relationship to classroom levels of aggression, aggression among ethnic minorities, and victimization among ethnic minorities; however, this is an area that merits more study (Mouttapa et al., 2004). The survey results were examined to see if the group that was the ethnic majority at a given school produced more bullies than the ethnic minorities. The report stated that the Asian students were the most frequently victimized group (Mouttapa et al., 2004). Additionally when grouped together, the remaining students, whites, African-Americans, and other ethnic minorities in majority Latino schools were not victimized more frequently than the majority group (Mouttapa et al., 2004). The research is unclear whether the Asian students were, in fact, victimized more because of their ethnicity, or were more likely to report victimization relative to other ethnic groups; the authors suggested this as an area for additional research (Mouttapa et al., 2004).

Spriggs, Iannotti, Nansel, and Haynie (2007) reported differences between the three racial/ethnic groups studied. White students had strong family, peer, and school relationships but were still involved in bullying. While African-American students had less family, peer, and school relationships they were also still involved in bullying incidents. Similar to white counterparts, African-American bullies were less likely and African-American victims were more likely to be socially isolated (Spriggs et al., 2007).

Conversely, however, only African-American bullies and bully victims reported significantly poorer classmate relations. Hispanic students were similar to African-American students in that fewer family, peer, and school factors differentiated bullying involved from non-
involved youth for Hispanic as compared to white students (Spriggs et al., 2007). As with the other two groups, bullies were less isolated and victims were more isolated, however only victims reported worse classmate relations (Spriggs et al., 2007). A substantial proportion of all the students surveyed, 21%, reported involvement in bullying as a bully, victim or both in the survey conducted by Spriggs et al. (2007). However, African-American students reported less victimization than white and Hispanic students did. For all students, bullying perpetration was associated more with family, peer, and school factors (Spriggs et al., 2007). School factors were related with bullying perpetration more consistently across racial/ethnic groups (Spriggs et al., 2007). The study, which examined bully/victims as a distinct group using a nationally representative sample, did not find that bully/victims differed from non-involved peers in most factors studied (Spriggs et al., 2007).

Sawyer et al.’s (2008) research stated that inconsistencies in the racial/ethnic trends for victimization appear in part because of the way in which bullying is measured. Sawyer et al. (2008) further reported that with regard to ethnicity the analyses revealed a trend whereby minority youth were less likely than their white counterparts to report being the victim of frequent bullying on the definition based measure. On the other hand, minority youth were more likely to report experiencing at least one form of bullying through the behavior based measure. Wang et al. (2009) also reported that according to the data African-American adolescents were involved in more physical, verbal and cyberbullying, but less verbal or relational victimization.

The Sawyer et al. (2008) study stated that there might be cultural differences either in the way that certain victimization experiences are perceived, or in normative beliefs about being a victim of bullying that affect children’s willingness to report the experience. For example, African American youth may label greater stigma associated with being bullied and are therefore
less likely to endorse a definition-based statement that contains the word bullying (Sawyer et al., 2008). It is clear that some groups are less likely to label certain experiences as bullying and that greater attention needs to be paid to the issue of measurement in research on bullying, particularly when studying minority youth (Sawyer et al., 2008).

Research has related socioeconomic status (SES) as having an effect on cyberbullying. Wright et al. (2009) reported focus groups from two different middle schools (one low SES and one high SES) showed differences in reactions to cyberbullying incidences, knowledge of technology, and coping with cyberbullying. Students from a low SES background were typically more confrontational and aggressive in their reactions, tended to use cell phones to cyberbully, and reported they would either confront the cyberbully or get a group of people to frighten the cyberbully (Wright et al., 2009). The researchers also reported passive reactions from students from a high SES background and that the students were more computer savvy. Those students knew how to report incidents to specific sites, had tendencies to use Facebook to cyberbully, and reported they would turn to an adult if they were cyberbullied (Wright et al., 2009).

Children from lower SES backgrounds are less likely to own a cell phone or personal desktop/laptop (Lenhart, 2012). Families not only are not able to own computers or cell phones but are also struggling to obtain high speed Internet, a necessity for efficiently conducting research for homework assignments and projects (Lenhart, 2012). Students who do not have access to internet services must visit places that offer free wireless internet to complete school assignments (Troianovski, 2013). Research suggests that SES is a major mediating variable in cyberbullying (Troianovski, 2013). Youth that come from lower SES households may have fewer opportunities to engage in cyberbullying in comparison to youth that come from higher SES backgrounds due to their lack of access to the Internet (Troianovski, 2013).
The lack of available technological resources in SES students’ homes remains a critical academic issue for success. These students have less access and more inconveniences to participate in social media—thus less opportunities to engage in social media and to become a victim or aggressor of cyberbullying.

The Role of the School

Joint efforts are required by all shareholders who are concerned for the safety of the children in prevention and intervention of cyberbullying (Couvillon & Ilieva, 2011; Hinduja & Patchin, 2009; Walker, 2012). Prior to the implementation, schools should designate a core team of trained school personnel to plan and implement the school’s prevention efforts. At a minimum, the prevention and intervention team should include an administrator, teacher representative, a professional skilled in the academic, socioemotional, and behavioral development of children (e.g., school psychologist, school counselor, social worker, child mental health professional, etc.), a parent representative, and a student representative (Dwyer & Jimerson, 2002).

Oftentimes, students are not made an integral part of a school’s prevention program team. Once the team is created, schools should conduct a needs assessment to determine the prevalence of all forms of bullying in the schools and areas of need based on staff and student data (Bradshaw & Waasdorp, 2009; Couvillon & Ilieva, 2011; Felix & Furlong, 2008; Hinduja & Patchin, 2009). Hinduja and Patchin (2009) have recommended that schools use a Cyberbullying Report Card for educators to use in addressing and preparing for cyberbullying incidents. A cyberbullying report card addresses the areas of school climate and culture, curriculum and education about cyber-safety, cyberbullying response, school policy, and technology (Hinduja & Patchin, 2009).
A cyberbullying survey created by Willard (n.d.) was used for districts to gather information from middle and high school students on cyberbullying related issues. Willard (2011) stated the most successful violence prevention programs promote a positive climate that does not tolerate aggression or bullying. An important component of any prevention program is having respect for others and including an honor code (Hinduja & Patchin, 2009). School-wide programs seem to be more effective that address bullying by implementing interventions at multiple levels and by soliciting help from parents (Willard, 2011). In zero-tolerance type programs, the system punishes a student who does not conform to the schools’ expectations (Bostic & Brunt, 2011).

Hinduja and Patchin (2009) recommended that the first step for a district to take in protecting itself from liability is to create a comprehensive antibullying program regarding bullying, technology, and cyberbullying. If the district already has a policy in place, revision is recommended to include cyberbullying (Hinduja & Patchin, 2009). Schools districts should consult with an attorney who has experience in school and/or Internet law when creating or revising disciplinary and anti-bullying/cyberbullying policies (Hinduja & Patchin, 2011; Willard, 2011).

The school policies should contain information on how the district may impose discipline for off-campus speech that causes a significant disruption at school and the policy should be grounded in “appropriate constitutional standards” (Willard, 2011). Policies that are too restrictive (i.e., restricting use of cell phones on campus) can discourage students from reporting bullying/cyberbullying (Willard, 2011). Research has shown that children and adolescents are less likely to report cyberbullying incidents to school staff or parents due to their fear of having their cell phones or Internet access taken away from them (Agatston, Kowalski, & Limber,
Districts should adopt guidelines for appropriate technology behavior and use without denying students the opportunity to use the technology (Miller, Thompson, & Franz, 2009).

An acceptable use policy should be created to address the use of any electronic devices on campus (Hinduja & Patchin, 2009; Miller et al., 2009). These policies should include the explicit use of cell phones and include specific language about the consequences of cyberbullying (Willard, 2011) and these consequences should be clearly defined and enforced for cyberbullying behaviors (Couvillon & Ilieva, 2011; Hinduja & Patchin, 2009). Hinduja and Patchin (2009) cautioned solely relying on detention or suspension to deal with a cyberbully.

Many school districts rely on Internet usage contracts and have used them to help combat cyberbullying incidents and inappropriate uses of school technology. Ford (2009) argued that several problems exist with utilizing Internet usage contracts due to contract law principles such as the contract not providing any benefit to students. Ford (2009) explained that since students are considered minors, the Internet usage contracts are considered voidable because the students do not have the opportunity to bargain over its terms and “unequal bargaining power” exists between the students and the adults who have created the contracts. Districts have a “fiduciary duty” to students, which means students have the right to be safe at school and are under the care of the school officials (Ford, 2009).

Researchers recommend an Acceptable Use Policy (AUP) be created to address the use of any electronic devices on campus (Hinduja & Patchin, 2009; Miller et al., 2009). Hinduja and Patchin (2009) recommended that “trustees” are designated to each school site so the trained trustee can deal with the cyberbullying incidents. Having a trustee on campus is important because students are more likely to share their experiences with the trustee due to the trustee showing more care and empathy (Agatston et al., 2012).
Educators play important role in the lives of their students. They should teach practices of digital citizenship and deem what appropriate social behavior is to their students (Couvillon & Ilieva, 2011). Donlin’s (2012) research promotes schools to teach students about the following five Cs:

1. Cyber-safety, which involves personal safety while interacting online;
2. Cyber-security, which includes specific technologies (e.g., software, networks, etc.) that protect equipment as well as information;
3. Cybercitizenship is defined as using responsible online behavior;
4. Cyber-literacy is one’s expertise with technology; and
5. Cyberbullying, which researchers suggest that schools should consider the use of a cyberbullying curriculum (Couvillon & Ilieva, 2011; Hinduja & Patchin, 2009) or integrating cybersafety into existing curricula and programs (Miller et al., 2009).

Training should be provided to all children about media literacy and digital citizenship (Collier, 2012). In order to prevent and respond to cyberbullying cases, educating students on how to use technology responsibly, Internet training and discussions of ethical behavior should begin as early as age 10 (Hoff & Mitchell, 2009; Walker, 2012).

**Legal Concerns**

Several students have successfully sued school districts using the defense of the First Amendment. When dealing with cyberbullying, regard to the First Amendment must be considered (Mason, 2008). Police are now required to obtain a warrant to search a cellphone for people they arrest because of privacy rights (Liptak, 2014). Cyberbullying incidents that occur off campus are in question by schools; however, schools are allowed to put restrictions on
incidences that occur during school time (Willard, 2006). Schools are allowed to discipline students if cyberbullying incidents occur off campus only if the incident disrupts the school environment (Mason, 2008; Strom & Strom, 2005). Court cases have set several precedents addressing online speech while occurring off campus. In the *J.S. v. Bethlehem Area School District* (2002, 2011), a student (J.S) was expelled from school for creating a webpage that included threatening and derogatory remarks about an English teacher. He created lists about why she should be fired and why she should die (Mason, 2008). The teacher was so distraught she took a medical leave for the remainder of the year and three different substitute teachers were hired to take her place, which caused additional disruption to the educational process for the students attending the school. The court ruled the webpage had a negative impact on the school community and ruled in favor of the school and upheld the expulsion of the student (*J.S. v. Bethlehem Area School District*, 2000).

Another precedent setting court case that occurred in Pennsylvania was that of *J.S. v Blue Mountain School District* (2009, 2011). A middle school student used her personal computer at home to create a fake MySpace profile about her middle school principal (*J.S. v Blue Mountain School District*, 2009, 2011). The profile contained vulgar language and although it did not identify the principal by name, the student posted a picture of him taken from the official school district website. The student received a 10-day suspension from school for the incident (*J.S. v Blue Mountain School District*, 2009, 2011). The students’ parents sued the district for violating their daughter’s First Amendment free speech rights (*J.S. v Blue Mountain School District*, 2009, 2011). This case was heard by the United States Court of Appeals Third Circuit in 2011. The student won the case as the court ruled her actions did not disrupt the school environment (Mason, 2008). Willard (2006) explained that the courts have ruled that electronic forms of
bullying or cyberbullying occurring off-campus during non-school hours must disrupt the school environment in order for the student to face school punishments.

Hinduja and Patchin (2009) warned against actions such as suspension to be used only in extreme cases due to any civil rights that might be violated. There are several legal obligations educators should understand in protecting their students in schools. The first one is the Fourth Amendment. The Fourth Amendment involves search and seizure. Willard (2011) explained that it is very important for educators to have reasonable grounds that the student has violated the law or school policy when forced to search students’ cell phones for harmful messages. A teacher, administrator, counselor, or any other faculty member is not allowed to just search through the student’s phone records without permission. A law enforcement official may have to ask the student’s consent to search his or her property. If permission is denied the law enforcement official may apply for a court appointed search warrant (Willard, 2011). Willard (2011) warned when nude pictures are involved a term evolves known as “sexting.”

Educators must understand that sexting is a federal and state offense and can constitute a felony (Willard, 2011). Some school districts are hesitant to intervene on cyberbullying incidents due to its risk of liability (Hinduja & Patchin, 2011). However, Hinduja and Patchin (2011) explained that by schools taking no action it may be interpreted as taking action. Educators should be attentive to any cyberbullying incident motivated by race, class, gender, or sexual orientation and each incident must be taken seriously (Hinduja & Patchin, 2009).

**Cyberbullying Prevention and Intervention in the Schools**

Beale and Hall (2007) have recommended guidelines for administrators to adhere to in order to prevent cyberbullying in schools. They include the following:

1. Provide students with the proper learning experiences about cyberbullying;
2. School counselors and teachers can collaborate on presenting the information for the students;

3. The school should have an anti-bullying policy in place. The school’s acceptable usage policy should be updated to include cyberbullying consequences. Parental education about cyberbullying should be offered; and

4. The administrators of the school should invite the local police department in to share about proper Internet usage. (Beale & Hall, 2007)

Cyberbullying is becoming an increasingly serious issue and requires the awareness of school officials, staff, and parents (Ybarra, Mitchell, Wolak, & Finkelhor, 2008). Ybarra et al. (2008) suggested that as a result of the significant increase in the report of cyberharassment from 2000 to 2005 vigilance is still called for on the part of those who interact with young people. Patchin and Hinduja (2006) noted lack of supervision in cyberspace. Chat rooms are periodically monitored in an attempt to regulate conversation and eliminate offensive individuals; personal messages are viewable only by the sender and recipient (Patchin & Hinduja, 2006). Further, email or text messages sent via computer or cellular phone are not subject to any type of monitoring or censorship.

In addition, an increasingly large number of adolescents have access to computers in the privacy of their bedrooms and in many cases the adolescent knows more about the use of computers and cellular phones than the parent and are, therefore, able to operate without fear of being discovered (Patchin & Hinduja, 2006). Juvonen and Gross (2008) looked at prevention tactics used by their respondents to protect themselves from cyberbullying. The most common tactic used was blocking a particular screen name, which 67% of the respondents reported that they had done in the past. One third reported having restricted a particular name from their
buddy list while 26% had switched their screen name and a like number had sent a warning to the perpetrator to prevent cyberbullying. Juvonen and Gross (2008) reported that these tactics are particularly relevant to instant messaging, which was reported as one of the most prevalent forms of electronic communication by their sample.

One assumption supported by the data collected by Juvonen and Gross (2008) was that youth would not report incidents of cyberbullying to adults which was in contrast to Ybarra et al. (2006) stated that two in three reported that they had disclosed the incident to a parent or other person in authority. The response found by Juvonen and Gross (2008) was, in fact, overwhelming as 90% of their respondents reported not telling adults about incidents of cyberbullying. Fifty percent of the respondents reported they needed to learn to deal with it by themselves (Juvonen & Gross, 2008). Thirty-one percent of the respondents were fearful to report as they believed if the parents found out their access to the Internet would be restricted (Juvonen & Gross, 2008). This concern was even more pronounced for younger respondents, particularly girls from age 12-14 (Juvonen & Gross, 2008).

The fact that many people are inseparable from their cell phones makes them a perpetual target, particularly if they need to keep it turned on for legitimate reasons (Juvonen & Gross, 2008). Thus, Patchin and Hinduja (2006) pointed out that there might be no rest for the victim, as the cyberbully penetrates the walls of the home, traditionally a place of refuge and the place where most adolescents connect to the Internet. In addition, Kowalski and Limber (2007) emphasized that unlike traditional bullying where the audience is usually a handful of children or youth, who are physically present, the potential audience for an act of electronic bullying is limitless.
It is important to create a joint effort between parents and schools to combat cyberbullying. In order to create a joint effort, cooperation is needed between schools and parents (Mason, 2008). It is the responsibility of the school personnel to promote a safe learning environment for students (Campbell, 2005). School personnel should take on the leadership roles in cyberbullying prevention (Mason, 2008). A useful tool in preventing cyberbullying is professional development about cyberbullying awareness for teachers and staff (Campbell, 2005). Cyberbullying awareness can be increased among students and parents by the school personnel (Chibbaro, 2007).

**Cyberbullying Curriculum Based Programs**

Curriculum based programs are useful tools that schools can incorporate to help reduce the incidences of cyberbullying and to raise awareness for prevention (Campbell, 2005). Research suggests that curriculum programs should consist of teaching character education directly, social skills, conflict resolution, and empathy training with the use of stories, role plays, and other forms of “netiquette” (Campbell, 2005; Mason, 2008). Olweus and Limber (2007) determined the reduction of bullying behavior included teaching students the following: good decision making skills, properly communicate, solve problems, and value kindness and respect others. Olweus’s Bullying Prevention Program is a school wide program that is aimed at antibullying that uses positive involvement by adults and teachers (Olweus & Limber, 2007). The program puts limits on unacceptable behavior that if violated, result in negative consequences (Olweus & Limber, 2007).

Another type of cyberbullying prevention program is i-SAFE Inc. (1998-2009). i-Safe is an Internet safety website used throughout the United States for the purpose of making Internet
experiences safe for today's youth (i-Safe, 1998-2009). The free website includes materials for children and teens, parents, law enforcement, and educators (i-Safe, 1998-2009). The goal of i-SAFE™ is to educate students on how to avoid inappropriate online behavior by using a P-12 curriculum. i-SAFE™ combine an “on demand” system that allows students to work at their own pace, and provides an online program and mentor. An important part of the i-SAFE™ program is professional development. Live sessions are available in addition to live virtual training academies (i-Safe, 1998-2009).

NetSmartz Workshop (2001-2010) promotes Internet safety and is very similar to i-SAFE™. NetSmartz offers teaching tools about Internet safety for parents, guardians, educators, and law enforcement. The materials are available for children ages 5 to 17. NetSmartz (2001-2010) teaches three rules for online safety: 1) talking to an adult when a child feels uncomfortable; 2) asking parental permission before sharing personal information; and 3) never meeting an online acquaintance in person. NetSmartz (2001-2010) created an interactive 3D program partnered with the National Center for Missing and Exploited Children and Boys and Girls Clubs for the program creation.

CyberSmart (2011) is a free program and has a different curriculum from i-Safe and NetSmartz. CyberSmart promotes internet safety along with current skills. CyberSmart’s primary focus is educators. The curriculum for CyberSmart has been aligned with the International Society for Technology in Education's National Education Technology Standards (CyberSmart, 2011). CyberSmart offers online professional development (CyberSmart, 2011).

Steps to Respect is another program implemented in schools to reduce bullying/cyberbullying incidents. Steps to Respect is a multilevel program designed to reduce bullying problems by organizing a school-wide intervention, a classroom-based curriculum, and
an intervention for students involved in bullying events. The intervention should provide adults and children with systemic support and specific procedures that stop bullying and encourage positive student behavior. Starting in grades 3 or 4 classroom lessons should target beliefs related to bullying as well as social-emotional skills to increase peer acceptance (Huesmann & Guerra 1997). The objective of the school-wide intervention is to establish a common trust and support for action to be taken. In order for intervention to work the following steps must be taken (a) developing and communicating clear school-wide anti-bullying policies and procedures, (b) increasing adult monitoring and intervention, and (c) increasing adult support for socially responsible student behavior (Frey et al., 2005).

**Additional Strategies for Educators**

Another tool for educators to use to combat cyberbullying is communication (Barrett, 2006). The youth are afraid to report cyberbullying incidences for fear of losing cell phone and Internet privileges (Barrett, 2006). In a 2008 study, 90% of the 1,454 12- to 17-year-olds reported they did not tell an adult when they were cyberbullied (Juvonen & Gross, 2008). Paulson (2003) stated it is important that students feel secure enough to allow them to report cyberbullying. Peer support groups are recommended by Paulson (2003) for students to feel secure and report incidences in those groups.

Communication with parents is a vital component of preventing cyberbullying as is communication with children (Brady & Conn, 2006). Schools are educating parents and local communities on the potential problems students may encounter due to cyberbullying (Brady & Conn, 2006). It is up to school personnel to provide information to the parents as they attempt to deal with their children’s electronic devices (Mason, 2008). Parents may deny the fact that their child could be a part of such hurtful activities involved in cyberbullying (Chibbaro, 2007; Smith
et al., 2008). Juvonen and Gross (2008) explained that many parents are unsure how to deal with cyberbullying issues because they are so unfamiliar with the communication technologies used by today’s youth.

**Program Evaluation**

The Steps to Respect program, as described by Frey et al. (2005), is used as a program evaluation to frame the current study. Program evaluation relates to how plans are implemented. As the answers to how processes occur within a program are determined, procedures may be improved or enhanced (Fitzpatrick et al., 2004).

The Steps to Respect program was designed by the Committee for Children in 1997 to decrease school bullying. Program evaluations in education formed organized examinations of programs, policies, and practices in determining the effectiveness and educational process (Chatterji, 2008; Goldie, 2006; McNamara, 2006; Slavin, 2008; Spaulding, 2008). Program evaluations originated in professions other than education. Prior to education, program evaluations were established in the medical fields (Chatterji, 2008; Goldie, 2006).

The Steps to Respect program, as described by Frey et al. (2005), is used as a program evaluation to frame the current study. According to Fitzpatrick, Sanders, and Worthen (2004), a program evaluation program helps determine the value of the object being evaluated. A program evaluation approach uses methods of analysis by (a) establishing standards by which to judge program quality, (b) providing the collection of relevant information, and (c) applying those standards to the program in an effort to establish its effectiveness, significance, or value.

There are five basic approaches to program evaluation suggested by Fitzpatrick et al. (2004). These approaches are objectives-oriented, management-oriented, consumer-oriented, expertise-oriented, and participant-oriented. A participant-oriented approach was used for this
study. Participant-oriented approaches place much emphasis on the needs of the program-participants (Fitzpatrick et al., 2004). Fitzpatrick et al. (2004) stated that two basic types of program evaluation are most often used in the field of research: formative and summative. A formative approach is used when the purpose of the evaluation is to determine the need for program improvement (Fitzpatrick et al., 2004). A summative approach to program evaluation focuses on gathering and providing information as to the program’s overall value and its worth of continuation (Fitzpatrick et al., 2004). A summative evaluation was implemented with this study.

Program evaluations have become essential in determining the effectiveness of programs and instructional materials by providing formative feedback for teachers and administrators (Goldie, 2006). In spite of growth of the use of program evaluation in the 1970s, educational decisions reverted back to politics, fads, and advertising (Goldie, 2006; Slavin, 2008). Given the recent importance placed on student outcomes and school district accountability, the use and value of program evaluations for accountability purposes have increased in the educational setting (Chatterji, 2008; Slavin, 2008). In the beginning, when educational systems began researching instructional practices, a medical research model was used but over a period of time the research for education systems progressed (Chatterji, 2008; Slavin, 2008). Fitzpatrick et al. (2004) stated that some of the various types of program evaluations included objective-oriented, management-oriented, consumer oriented, expertise-oriented, adversary-oriented, and participant-oriented. They stated

it should be apparent that both formative and summative evaluation are essential because decisions are needed during the developmental stages of the program to improve and strengthen it, and again, when it has stabilized, to judge its final worth or determine its future. (p. 18)

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Chatterji (2008) stated that abnormalities can be found in evaluating a new program. Fitzpatrick et al. (2004) described criticism as an educational method used to identify qualities of a program through description, assessment, and explanation. Chatterji (2008) recommended the use of qualitative data in program evaluations. Often the use of logic-modeling techniques, which combined qualitative and quantitative research, “unpacked relevant pieces of a program to model better multiple causal linkages and influences, thereby improving the clarity with which effects are determined and interpreted” (Chatterji, 2008, p. 24).

**Preservice Education**

Teacher preparation programs are responsible for preparing future teachers for the challenges and realities they will face in today’s classrooms (Borman, Mueninghoff, Cotner & Bach Frederick, 2009). It is a challenge to prepare today’s future teacher in the ever-changing global society (Borman et al., 2009), and the challenges facing teachers today are different from any other time in history (Cochran-Smith, 2005). Hughes (2006) has defined today’s classrooms as a fully inclusive environment with the students with special needs, students that have English as their second language, and the rapidly changing world of technology.

The National Council for Accreditation of Teacher Education (NCATE), along with the International Society for Technology in Education (ISTE), has created technology standards that many universities and colleges use for their teacher preparation programs. The standards allow the teacher preparation programs to define what meets the technology standard. Several schools are embracing the new world of technology and it is reasonable to expect schools will be seeking technologically proficient new teachers (PBS Frontline, 2009).

Li (2008) proposed that teacher education programs should create more awareness about cyberbullying prevention and intervention with P-12 preservice teachers prior to entering the
classroom. Teachers play a very important role in recognizing cyberbullying in their classrooms. It is important that the preservice teachers be aware of what lies in the classroom ahead of them other than lesson plans, grades, dress code, hall duty, and lunchroom duty (Barak, 2005). With the advances and availability in technology, cyberbullying has become more commonplace, making training for teachers important (Barak, 2005). Many students do not share their cyberbullying incidents with adults (Li, 2007).

Often, students fear that the cyberbullying situation will be made worse by bringing attention to the situation (Mishna, Saini, & Solomon, 2009). Students fear teachers would disregard the cyberbullying incidents since they take place off school grounds (Mishna, Saini, & Solomon, 2009). For the reasons listed above, teachers and parents should be very aware of the cyberbullying incidents going on in the students’ lives (Mishna, Saini, & Solomon, 2009). Often times, during school days, teachers are with the students more than their parents, counselors, or administrators (Mishna, Saini, & Solomon, 2009). It is important to educate future teachers on what to look out for in their future classrooms (Mishna, Saini, & Solomon, 2009).

Summary

Cyberbullying can be defined as repeatedly harassing an individual through electronic means by another person who knowingly and willingly wants to cause harm to the individual (Hinduja & Patchin, 2010). Due to the ability to be harassed almost nonstop, students have an increased fear of cyberbullying compared to traditional bullying (Kowalski & Limber, 2007). Hinduja and Patchin, (2009) recommended the first step for a school district to take in protecting itself from liability is to create a comprehensive anti-bullying program regarding bullying, technology, and cyberbullying.
An acceptable use policy should be created to address the use of any electronic devices on campus (Hinduja & Patchin, 2009; Miller et al., 2009). When dealing with cyberbullying, legal ramifications with regard to the First Amendment must be considered (Mason, 2008). Cyberbullying incidents that occur off campus are in question by schools; however, schools are allowed to put restrictions on incidences that occur during school time (Willard, 2006). Schools are allowed to discipline students if cyberbullying incidents occur off campus only if the incident disrupts the school environment (Mason, 2008; Strom & Strom, 2005). Cyberbullying is becoming an increasingly serious issue, which requires awareness of school officials, staff, and parents to effectively address (Ybarra, Mitchell, Wolak, & Finkelhor, 2008).

Teachers play a very important role in recognizing cyberbullying in their classrooms. It is important that the preservice teachers be aware of what lies in the classroom ahead of them other than lesson plans, grades, dress code, hall duty, and lunchroom duty (Barak, 2005). With the advances and availability in technology, cyberbullying has become more commonplace (Barak, 2005). Proper training for perspective teachers is important in this process (Barak, 2005).
CHAPTER III:

METHODOLOGY

Introduction

Using a quantitative research design, this study explored P-12, elementary, and secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations regarding cyberbullying prior to and post an intervention model presented to the preservice teachers. Gall, Borg, and Gall (1996) defined quantitative research as “collecting numerical data on observable behaviors of samples and subjecting these data to statistical analysis” (p. 767). Data were collected and quantitative methods were used to analyze the data from the pre-test and post-test surveys. The analyses were evaluated based on four major questions guiding the study. The research findings, conclusions, and recommendations will be presented at the conclusion of the study.

Setting of the Study

The study took place at The University of North Alabama. The teacher education program at the university was approved by the State Department of Education and holds accreditation by the National Council for Accreditation of Teacher Education (NCATE) and the Commission on Colleges of the Southern Association of Colleges and Schools (SACS). Total student enrollment at the university includes over 7,200 students from undergraduate, professional, and graduate areas. The student population includes 55% women and 45% men. The student population was comprised of 72.2% Caucasian, 11.8% African American, 1.8% Hispanic, 3.2 % Asian, 1.0 % American Indian/Alaskan Native, 5.0 % Nonresident Alien
students, 1.7% Multi Racial, .07% Native Hawaiian/Pacific Islander, and 3.2% not reported. (SACSCC, 2011-2012).

A convenience sample of 231 preservice teachers enrolled in the P-12 teacher education program were asked to participate in the study. After permission was granted by The University of Alabama’s Institutional Review Board for Human Subjects and The University of North Alabama’s Institutional Review Board for Human Subjects, the preservice teachers were given Li’s (2008) Survey on School Cyberbullying for Preservice Teachers (see Appendix A) over the course of the summer classes 2014. The preservice teachers remained anonymous when completing the pre- and post-tests. Demographics on the survey include gender, classification (year in teacher education program - e.g. sophomore, junior, senior, or graduate year), and program admitted (e.g. P-12, elementary, or secondary). The pretest survey was given to all education students enrolled in summer 2014 undergraduate/graduate level elementary and secondary education classes at The University of North Alabama who had been admitted in the teacher education program and who were 19 years of age and older. The professor of the class at The University of North Alabama asked his/her individual classes if anyone had already attended the session prior to giving out the pre-test survey. If the preservice teacher had already attended, the professor of the class instructed the preservice teacher not to complete another survey and not to attend the session on the day the researcher came. This was done to ensure that there would be no duplicates. The intervention followed two days after the pretest survey was given and lasted one hour with the post-test immediately following. The intervention steps were presented by the researcher in a PowerPoint presentation (see Appendix B). The post-test survey (see Appendix C) was given out as soon as the intervention presentation was completed by the researcher. The post-test survey was handed out to the students by the researcher and collected
by the professor of the education classes in a sealed envelope as the preservice teachers exited the classroom.

**Participants**

The convenience sample for this study was taken from the population of students enrolled in the undergraduate/graduate education courses during the summer sessions taught in the College of Education at The University of North Alabama. The sample included 234 college students including male and female (19 years of age and older). A power analysis using G*power 3.0 indicates that a sample size of 231 was sufficient to detect a moderate effect at .8 power. The researcher chose to include all education classes at the university because it included all preservice teachers that will graduate within a two-year time frame after being admitted to the teacher education program.

The population sample for this study was not randomly selected; therefore, factors related to external validity were considered to the extent in which the findings of this study can be applied to a particular setting. The preservice teachers had a choice whether or not to participate in the study. The total sample of students to be utilized in this study depended on enrollment for the summer of 2014.

**Instrumentation**

Quantitative data were collected through the administration of surveys during class time. Permission was granted by Li to the researcher to use the (2008) Survey on School Cyberbullying for Preservice Teachers for the study (see Appendix D). There were a total of 21 items related to preservice teachers’ awareness and their experiences about cyberbullying. Each item had a five-point, Likert-type scale from strongly disagree to strongly agree. Also, the instrument included preservice teachers’ demographic information, such as gender, classification
(e.g. sophomore, junior, or senior), and major (e.g. P-12, elementary, or secondary). The purpose of this study was to explore P-12, elementary, and secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations on cyberbullying prior to and post intervention model. A five-point, Likert-scale survey based on Li’s Survey on School Cyberbullying for Preservice Teachers (2008) was administered to the preservice teachers during the education classes at the university. Once agreement to participate was given, the preservice teachers completed the surveys anonymously. The preservice teachers returned the completed surveys to the front of the room and placed the surveys in an envelope that was sealed after all surveys were turned in. The next session, two days later, included a one-hour cyberbullying intervention program based on Frey et al. (2005) work. The Steps to Respect program, as described by Frey et al. (2005), framed the study. The Steps to Respect program was presented to the preservice teachers by the researcher. According to Fitzpatrick, Sanders, and Worthen (2004), a program evaluation program helps determine the value of the object being evaluated. A program evaluation approach uses methods of analysis by (a) establishing standards by which to judge program quality, (b) providing the collection of relevant information, and (c) applying those standards to the program in an effort to establish its effectiveness, significance, or value (Fitzpatrick et al., 2004).

There are five basic approaches to program evaluation suggested by Fitzpatrick et al. (2004). These approaches are objectives-oriented, management-oriented, consumer-oriented, expertise-oriented, and participant-oriented. A participant-oriented approach was used for this study. Participant-oriented approaches place much emphasis on the needs of the program-participants (Fitzpatrick et al., 2004). Fitzpatrick et al. (2004) stated that two basic types of program evaluation are most often used in the field of research: formative and summative. A
Formative approach is used when the purpose of the evaluation is to determine the need for program improvement (Fitzpatrick et al.). A summative approach to program evaluation focuses on gathering and providing information as to the program’s overall value and its worth of continuation (Fitzpatrick et al., 2004). A summative evaluation was implemented with this study.

The Steps to Respect program was designed by the Committee for Children in 1997 to decrease school bullying. Even though the Steps to Respect program focused on bullying the same steps were applied for recognizing cyberbullying issues. For this study, this framework consists of a four-step process used as an intervention model for preservice teachers on dealing with cyberbullying in the classroom. Step 1 is increasing adult monitoring and intervention in cyberbullying events. Li (2008) recommended a good comprehension of teachers’ (including pre- and in-service teachers’) perceptions and attitudes related to cyberbullying is important before researchers can understand the issue of cyberbullying intervention. Instructional staff should receive training to help easily identify troubled students (Frey et al., 2005). According to the Committee for Children (2001) teachers’ awareness and responses to bullying/cyberbullying improved after implementation of an intervention program was in place. An implementation of an intervention program may be an effective tool that educators can use to decrease cyberbullying/bullying and help students build more positive relationships (Frey et al., 2005).

Step 2 is improving systemic supports for socially responsible behavior. Teachers need to be prepared to supervise students learning when using technology in the classroom (Patchin & Hinduja, 2006). Step 2 is designed to help foster a safe and friendly classroom environment. This step also helps teachers recognize the negative outcomes associated with cyberbullying. Rejection by peers is related to multiple negative outcomes such as school dropout, relationship difficulties, and mental health problems (Cowen, Pederson, Babigian, Izzo, & Trost, 1973;
Parker and Asher, 1993). Step 3 is changing student normative beliefs that support cyberbullying. Frey et al. (2005) proposed that teachers develop classroom lessons that focus on “empathy, problem solving, and practicing assertiveness skills” (p. 468). Preservice education is a time of intense study of teaching, instruction, curricula, policy and administration (Ryan, 2009). During step 3 the intervention model will train teachers how to develop instruction for their respective classrooms for cyberbullying prevention. Step 4 is addressing student social-emotional skills that counter cyberbullying and support social competence. Preservice teachers need to be aware that one-on-one counseling may be needed for their students if their students are in a cyberbullying encounter (Frey et al., 2005). The PowerPoint presentation used for the intervention presentation was created by the researcher and was informed through current literature. The table below demonstrates how the steps correspond with the PowerPoint intervention presentation.

Table 1

*Steps Used in the Intervention Presentation for Preservice Teachers Along with the Corresponding PowerPoint Slides*

<table>
<thead>
<tr>
<th>Intervention Models</th>
<th>Slides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 increasing adult monitoring and intervention in cyberbullying events.</td>
<td>5, 6, 7</td>
</tr>
<tr>
<td>Step 2 improving systemic supports for socially responsible behavior.</td>
<td>8, 9</td>
</tr>
<tr>
<td>Step 3 changing student normative beliefs that support cyberbullying.</td>
<td>10</td>
</tr>
<tr>
<td>Step 4 addressing student social-emotional skills that counter cyberbullying and support social competence.</td>
<td>11, 12</td>
</tr>
</tbody>
</table>

Note: All steps are based on the information from Frey et al., 2005 Steps to Respect program. The slides represent which information corresponds to the slides on the PowerPoint intervention presentation.
An immediate post-test survey was given as a follow up from the intervention program to test the preservice teachers’ concerns, confidence levels, beliefs, and preparations regarding cyberbullying in schools.

**Reliability and Validity of the Survey**

Li (2008) constructed a 26-item survey based on data collected from 154 preservice teachers. The Alpha coefficient of the internal reliability of the instrument was 0.88 (Li, 2008). Each item had a five-point, Likert-type scale from strongly disagree to strongly agree. The methods to establish content validity were first based on the already existing field-tested instrument developed by Siu (2004), the Teachers’ Attitude about Bullying Questionnaire. The second method was that 96% of the items were rated as one (relevant), which was taken as an indication that the content was valid (Li, 2008). It is not a summative rating scale. Validation for this survey was constructed for this survey through this research.

**Data Collection**

The pre-test survey was handed out by the researcher to those students agreeing to participate at the beginning of the education classes at The University of North Alabama. The completed surveys was placed in a designated envelope at the front of the classroom and the last student to turn in the survey was asked to seal the envelope before the researcher collected the envelope. The researcher collected the post-test surveys directly after the intervention model was presented. The last student to complete the post-test survey was asked to seal the envelope for the researcher upon leaving the room.
**Data Analysis**

Table 2 explains how the research design for this study addressed each research question.

Table 2

*Explanation of How the Research Design Answers the Research Questions*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Variables</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there evidence of construct validity in the survey on school cyberbullying for</td>
<td>Survey items</td>
<td>Confirmatory Factory Analysis</td>
</tr>
<tr>
<td>preservice teachers?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there a change in preservice teachers’ concerns, confidence levels, beliefs,</td>
<td>Survey Questions 1.1-1.21</td>
<td>ANOVA/MANOVA</td>
</tr>
<tr>
<td>and preparations of cyberbullying after an intervention has been presented to the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>preservice teachers?</td>
<td>Independent Variable: Intervention Model</td>
<td></td>
</tr>
<tr>
<td></td>
<td>between pre- and post-survey</td>
<td></td>
</tr>
<tr>
<td>Is there a difference between elementary and secondary preservice teachers’</td>
<td>Survey Questions 1.1-1.21</td>
<td>ANOVA/MANOVA</td>
</tr>
<tr>
<td>concerns, confidence levels, beliefs, and preparations regarding cyberbullying</td>
<td></td>
<td></td>
</tr>
<tr>
<td>before and after the cyberbullying intervention for preservice teachers?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. EFA is a statistical invention that is used to discover the underlying factor structure of newly developed scales (Kim & Mueller, 1978). It cannot validate a scale, but it can show how items cluster together into meaningful subscales.

The pre/post test survey contains 21 questions. Those questions are broken down into four subcategories: beliefs, concerns, confidence levels, and preparation regarding cyberbullying.

The following table illustrates the survey questions that coincide with each subcategory.
Table 3

*The Pre/Post Test Survey*

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Survey Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs</td>
<td>1.6-1.17</td>
</tr>
<tr>
<td>Concerns</td>
<td>1.1-1.3</td>
</tr>
<tr>
<td>Confidence levels</td>
<td>1.4-1.5</td>
</tr>
<tr>
<td>Preparations</td>
<td>1.18-1.21</td>
</tr>
</tbody>
</table>

Note: Permission was granted by Li to the researcher to use Li’s (2008) Survey on School Cyberbullying for Preservice Teachers for the study (see Appendix D).

**Summary**

It is critically important for teachers to help keep students safe in the classroom (Kallestad & Olweus, 2003). This safety comes from not only classroom management, but an understanding of student behavior outside the classroom. With the ever-increasing rise of technology, it is becoming increasingly easier for students to take cyberbullying to another level (Frey et al., 2005). With the education gained from this study, preservice teachers should have better tools at their disposal for preventing cyberbullying. Li’s (2008) Survey on School Cyberbullying for Preservice Teachers in conjunction with adapting an intervention based on Frey et al. (2005) Steps to Respect program provided data for the study. Following the pre-test survey and an intervention program, a post-test survey was given.
CHAPTER IV:

RESULTS

Introduction

The purpose of this study was to explore P-12, elementary, secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations on cyberbullying prevention and intervention prior to and post an intervention model. Using a quantitative research design, this study explored P-12, elementary, and secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations regarding cyberbullying prior to and post an intervention model presented to the preservice teachers. Gall, Borg, and Gall (1996) defined quantitative research as “collecting numerical data on observable behaviors of samples and subjecting these data to statistical analysis” (p. 767). Data results were collected and quantitative methods were used to analyze the data from the pre-test and post-test surveys.

The analyses were evaluated based on four major questions guiding the study. They included the following:

1. Is there evidence of construct validity in the survey on school cyberbullying for preservice teachers;

2. What are preservice teachers’ concerns, confidence levels, beliefs, and preparations regarding cyberbullying;

3. Is there a change in preservice teachers’ concerns, confidence levels, beliefs, and preparations of cyberbullying after an intervention has been presented to the preservice teachers; and
4. Is there a difference between elementary and secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations regarding cyberbullying before and after the cyberbullying intervention for preservice teachers?

**Instrumentation**

Permission was granted by Li to the researcher to use Li’s (2008) Survey on School Cyberbullying for Preservice Teachers for the study (see Appendix D). There were a total of 21 items related to preservice teachers’ awareness and their experiences about cyberbullying. Each item had a five-point, Likert-type scale from strongly disagree to strongly agree. Also, the instrument included preservice teachers’ demographic information such as gender, classification (e.g. sophomore, junior, or senior), and major (e.g. P-12, elementary, or secondary).

**Sample**

The research sample consisted of 231 preservice teachers who attended The University of North Alabama. The preservice teachers were given a pre-test survey about cyberbullying beliefs, concerns, knowledge, and preparation prior to the Steps to Respect Intervention Model on Cyberbullying and the same survey was given as a post-test after the intervention model. The sample consisted of preservice teachers enrolled in education classes during the summer of 2014 at The University of North Alabama.

**Descriptive Statistics**

The sample consisted of 231 participants from The University of North Alabama, with 66% females (n = 153) and 34% males (n = 78). Table 4 provides descriptive data regarding the gender of the study participants.
Table 4

**Study Participants by Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Percent of Study Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>153</td>
<td>66%</td>
</tr>
<tr>
<td>Male</td>
<td>78</td>
<td>34%</td>
</tr>
<tr>
<td>Total</td>
<td>231</td>
<td>100%</td>
</tr>
</tbody>
</table>

Students’ classification was included on the respondents’ survey as Year in Program: sophomore (n=32) or 13%, junior (n=50) or 22%, senior (n=73) or 32%, or graduate (n=78) or 33%. Table 5 provides descriptive data regarding the classification (year in program) of the study participants.

Table 5

**Study Participants by Classification (Year in Program)**

<table>
<thead>
<tr>
<th>Classification</th>
<th>N</th>
<th>Percent of Study Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomore</td>
<td>32</td>
<td>13%</td>
</tr>
<tr>
<td>Junior</td>
<td>50</td>
<td>22%</td>
</tr>
<tr>
<td>Senior</td>
<td>73</td>
<td>32%</td>
</tr>
<tr>
<td>Graduate</td>
<td>76</td>
<td>33%</td>
</tr>
<tr>
<td>Total</td>
<td>231</td>
<td>100%</td>
</tr>
</tbody>
</table>

In addition, the sample group was divided by the program the preservice teacher was enrolled in elementary (n=87) or 38%, secondary (n=113) or 49%, P-12 (n=31) or 13% programs. Table 6 provides descriptive data regarding the participants’ program of the study.
Table 6

*Study Participants by Program*

<table>
<thead>
<tr>
<th>Program</th>
<th>N</th>
<th>Percent of Study Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>87</td>
<td>38%</td>
</tr>
<tr>
<td>Secondary</td>
<td>113</td>
<td>49%</td>
</tr>
<tr>
<td>P-12</td>
<td>31</td>
<td>13%</td>
</tr>
<tr>
<td>Total</td>
<td>231</td>
<td>100%</td>
</tr>
</tbody>
</table>

Comparisons between the sample population and the pre/post test survey subscales (beliefs, concerns, confidence levels, and preparations) were conducted. Table 7 illustrates the respondents’ results to the survey questions based on the subscale questions, gender, and program on the pre-test survey.
Table 7

*Pre-Test Survey Answers*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Gender</th>
<th>Program</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs</td>
<td>Males</td>
<td>Elementary</td>
<td>47.20</td>
<td>4.324</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>45.96</td>
<td>8.795</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>48.06</td>
<td>9.086</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>Elementary</td>
<td>50.29</td>
<td>7.250</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>49.44</td>
<td>8.540</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>48.21</td>
<td>7.029</td>
<td>17</td>
</tr>
<tr>
<td>Concerns</td>
<td>Males</td>
<td>Elementary</td>
<td>12.00</td>
<td>1.871</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>12.14</td>
<td>2.040</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>12.06</td>
<td>2.609</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>Elementary</td>
<td>13.15</td>
<td>1.976</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>13.09</td>
<td>2.317</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>12.50</td>
<td>2.066</td>
<td>14</td>
</tr>
<tr>
<td>Confidence</td>
<td>Males</td>
<td>Elementary</td>
<td>8.40</td>
<td>.548</td>
<td>5</td>
</tr>
<tr>
<td>Levels</td>
<td></td>
<td>Secondary</td>
<td>7.54</td>
<td>1.799</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>8.00</td>
<td>1.803</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>Elementary</td>
<td>7.59</td>
<td>1.111</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>7.35</td>
<td>1.587</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>7.43</td>
<td>1.342</td>
<td>14</td>
</tr>
<tr>
<td>Preparations</td>
<td>Males</td>
<td>Elementary</td>
<td>13.60</td>
<td>2.702</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
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<td>4.474</td>
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<td>12.59</td>
<td>3.874</td>
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<tr>
<td></td>
<td>Females</td>
<td>Elementary</td>
<td>14.48</td>
<td>3.015</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>13.95</td>
<td>3.676</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>13.79</td>
<td>2.455</td>
<td>14</td>
</tr>
</tbody>
</table>

Table 8 illustrates the respondents’ results to the survey questions based on the subscale questions, gender, and program on the post-test survey.
Table 8

*Post-Test Survey Answers*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Gender</th>
<th>Program</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs</td>
<td>Males</td>
<td>Elementary</td>
<td>53.60</td>
<td>4.561</td>
<td>5</td>
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<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>55.09</td>
<td>6.130</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>53.06</td>
<td>9.344</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>Elementary</td>
<td>55.72</td>
<td>5.819</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>55.81</td>
<td>6.066</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>53.21</td>
<td>7.577</td>
<td>14</td>
</tr>
<tr>
<td>Concerns</td>
<td>Males</td>
<td>Elementary</td>
<td>13.60</td>
<td>1.342</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>13.96</td>
<td>1.279</td>
<td>56</td>
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<td>P-12</td>
<td>13.35</td>
<td>1.618</td>
<td>17</td>
</tr>
<tr>
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<td>Females</td>
<td>Elementary</td>
<td>14.35</td>
<td>1.169</td>
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</tr>
<tr>
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<td>Secondary</td>
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<td>1.264</td>
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<td></td>
<td>P-12</td>
<td>13.57</td>
<td>1.453</td>
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</tr>
<tr>
<td>Confidence Levels</td>
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<td>Elementary</td>
<td>9.00</td>
<td>--</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>8.62</td>
<td>1.359</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>8.40</td>
<td>1.140</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>Elementary</td>
<td>8.76</td>
<td>1.128</td>
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<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>8.89</td>
<td>1.205</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>8.57</td>
<td>1.016</td>
<td>14</td>
</tr>
<tr>
<td>Preparations</td>
<td>Males</td>
<td>Elementary</td>
<td>16.80</td>
<td>2.950</td>
<td>5</td>
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<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>17.27</td>
<td>2.895</td>
<td>56</td>
</tr>
<tr>
<td></td>
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<td>P-12</td>
<td>16.88</td>
<td>2.848</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>Elementary</td>
<td>17.07</td>
<td>2.478</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Secondary</td>
<td>17.04</td>
<td>2.958</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-12</td>
<td>16.43</td>
<td>2.209</td>
<td>14</td>
</tr>
</tbody>
</table>

**Quantitative Data Analysis**

In order to answer the research questions, a repeated measures multivariate analysis of variance with follow up univariate analyses of variance was conducted. Four subscale scores at pre and post testing were the dependent variables. No multivariate significance was discovered for between subjects main effects of gender \([L=.961, F=2.09 (4,205), p=.08]\), classification (year in program) \([L=.926, F=1.34 (12,542.7), p=.19]\), or program \([L=.990, F=0.253 (8,410), p=.98]\). Nor were there statistically significant multivariate between subjects interaction effects of gender.
by year \( [L=.969, F=0.538 \quad (12, \ 542.7), \ p=.89] \), gender by program \( [L=.977, F=0.606 \quad (8, \ 410), \ p=.77] \), year by program \( [L=.856, F=1.36 \quad (24, \ 716.4), \ p=.12] \), or gender by year by program \( [L=.946, F=0.57 \quad (20, \ 680.9), \ p=.93] \).

In terms of within subjects change, there was multivariate statistical significance for the main effect of the intervention model \( [L=.712, F=20.8 \quad (4, \ 205), \ p<.001] \), however no within subjects multivariate statistical significance for the interaction effects of the intervention model by gender \( [L=.983, F=0.88 \quad (4, \ 205), \ p=.47] \), the intervention model change by year \( [L=.966, F=0.59 \quad (12, \ 543.7), \ p=.85] \), intervention model change by program \( [L=.930, F=1.88 \quad (8, \ 410), \ p=.06] \), the intervention model by gender by year \( [L=.987, F=0.22 \quad (12, \ 542.7), \ p=.99] \), the intervention model by gender by program \( [L=.981, F=0.493 \quad (8, \ 410), \ p=.86] \), the intervention model by year by program \( [L=.856, F=1.36 \quad (24, \ 716.4), \ p=.12] \), or the intervention model by gender by year by program \( [L=.935, F=0.69 \quad (20, \ 680.9), \ p=.84] \). Table 9 below details the MANOVA results.
Table 9

Cyberbullying MANOVA Results

<table>
<thead>
<tr>
<th>Effect</th>
<th>Wilks’ L</th>
<th>F-value</th>
<th>p</th>
<th>Number of DVs</th>
<th>$h^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between Subjects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.96</td>
<td>2.10</td>
<td>.08</td>
<td>4</td>
<td>.04</td>
</tr>
<tr>
<td>Year</td>
<td>0.93</td>
<td>1.34</td>
<td>.19</td>
<td>4</td>
<td>.03</td>
</tr>
<tr>
<td>Program</td>
<td>0.99</td>
<td>0.25</td>
<td>.98</td>
<td>4</td>
<td>.01</td>
</tr>
<tr>
<td>Gender * Year</td>
<td>0.97</td>
<td>0.54</td>
<td>.89</td>
<td>4</td>
<td>.01</td>
</tr>
<tr>
<td>Gender * Program</td>
<td>0.98</td>
<td>0.61</td>
<td>.77</td>
<td>4</td>
<td>.01</td>
</tr>
<tr>
<td>Year * Program</td>
<td>0.86</td>
<td>1.36</td>
<td>.12</td>
<td>4</td>
<td>.04</td>
</tr>
<tr>
<td>Gender * Year * Program</td>
<td>0.95</td>
<td>0.57</td>
<td>.93</td>
<td>4</td>
<td>.01</td>
</tr>
<tr>
<td><strong>Within Subjects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention Model (Pre-Post)</td>
<td>0.71</td>
<td>20.77</td>
<td>&lt;.001***</td>
<td>4</td>
<td>.29</td>
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<tr>
<td>Intervention Model * Gender</td>
<td>0.98</td>
<td>0.89</td>
<td>.47</td>
<td>4</td>
<td>.02</td>
</tr>
<tr>
<td>Intervention Model * Year</td>
<td>0.97</td>
<td>0.59</td>
<td>.85</td>
<td>4</td>
<td>.01</td>
</tr>
<tr>
<td>Intervention Model * Program</td>
<td>0.93</td>
<td>1.88</td>
<td>.06</td>
<td>4</td>
<td>.04</td>
</tr>
<tr>
<td>Intervention Model * Gender * Year</td>
<td>0.99</td>
<td>0.22</td>
<td>.99</td>
<td>4</td>
<td>.01</td>
</tr>
<tr>
<td>Intervention Model * Gender * Program</td>
<td>0.98</td>
<td>0.49</td>
<td>.86</td>
<td>4</td>
<td>.01</td>
</tr>
<tr>
<td>Program</td>
<td>0.86</td>
<td>1.36</td>
<td>.12</td>
<td>4</td>
<td>.04</td>
</tr>
<tr>
<td>Intervention Model * Gender * Program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Given the only multivariate effect is the within subjects multivariate effect of the intervention model, univariate statistics were examined to better understand the pre-post change at each of the dependent variables. The four within subject univariate main effects of the intervention model for the beliefs subscale $[F=49.7 (1,208), p<.001]$, the concerns subscale $[F=63.7 (1,208), p<.001]$, the confidence level subscale $[F=39.4 (1,208), p<.001]$, and the preparations subscale $[F=57.9 (1,208), p<.001]$ were statistically significant. An examination of the means indicates an increase in all subscale scores with a 5.6 point increase ($h^2=.19$) in beliefs, a 1.3 point increase ($h^2=.17$) in concerns, a 1.0 point increase ($h^2=.15$) in confidence level, and a 3.0 point increase ($h^2=.22$) in preparations.
While the MANOVA intervention model by program within subjects effect was not significant at the .05 alpha level, it was close enough to statistical significance \( p = .06 \) that univariate ANOVAs were conducted to assess differences in individual subscale change at the program by intervention model level. Upon inspection, the concerns \( [F=2.05 (2,3.13), p = .13] \), confidence level \( [F=2.61 (2,2.73), p = .08] \), and preparations \( [F=0.59 (2,3.31), p = .56] \) were not statistically significant indicating no significant change from pre to post at each level on these subscales. There was, however, a statistically significant the intervention model by program effect on the beliefs subscale \( [F=4.94 (2,116), p = .008] \). These results suggest that there was a difference in change on the belief subscale based on program of study (elementary, secondary, or P-12). Post hoc analysis indicates that there was a 5.2-point positive change in beliefs for elementary students, and 8.1-point positive change for Secondary students, and a 3.5-point change for P-12 students. Simple effects analysis indicates that the pre-test belief scores are statistically similar for each of the three programs, but at post testing the P-12 score is lower than the secondary score. These results suggest that for the Belief subscale change, secondary students have a greater gain than the P-12 students. The elementary students were similar to both P-12 and secondary.
Table 10

*Univariate Statistics by Subscale for Significant MANOVA Effects*

<table>
<thead>
<tr>
<th>Effect</th>
<th>F-value</th>
<th>MS</th>
<th>p</th>
<th>$h^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>After the Intervention Model</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belief</td>
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<td>1167.1</td>
<td>&lt;.001</td>
<td>.19</td>
</tr>
<tr>
<td>Concerns</td>
<td>41.5</td>
<td>63.7</td>
<td>&lt;.001</td>
<td>.17</td>
</tr>
<tr>
<td>Confidence Level</td>
<td>37.8</td>
<td>39.4</td>
<td>&lt;.001</td>
<td>.15</td>
</tr>
<tr>
<td>Preparation</td>
<td>57.9</td>
<td>327.3</td>
<td>&lt;.001</td>
<td>.22</td>
</tr>
<tr>
<td>After the Intervention Model by</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belief</td>
<td>4.94</td>
<td>116.02</td>
<td>.01</td>
<td>.05</td>
</tr>
<tr>
<td>Concerns</td>
<td>2.05</td>
<td>3.13</td>
<td>.13</td>
<td>.02</td>
</tr>
<tr>
<td>Confidence Level</td>
<td>2.61</td>
<td>2.73</td>
<td>.08</td>
<td>.03</td>
</tr>
<tr>
<td>Preparation</td>
<td>0.59</td>
<td>3.31</td>
<td>.56</td>
<td>.01</td>
</tr>
</tbody>
</table>

Figure 1. *Intervention Model by program for belief subscale.*
Construct validity of the Cyberbullying Survey was assessed through confirmatory factor analysis (CFA) techniques using MPLUS 6. The original instrument was validated with four factors; Concerns (items 1-3), confidence levels (items 4-5), beliefs (items 6-17), and awareness (items 18-21). Given the ordinal nature of the item level data, a CFA using weighted least squares mean and variance adjusted (WLSMV) estimation (Muthén, B., du Toit, S.H.C. & Spisic, D., 1997). The CFA was conducted with the same four latent factors and item loadings as in the original validation study. Only post intervention level data were used in the analysis as the combination of pre and post data would violate the assumption of independence.

The chi-square test of model fit was significant, \( \chi^2 = 506.8, \text{df}=183, p<.001, \) indicating an inadequate fit of the data to the model. Given the large sample size of \( n=235, \) chi-square results are often misleading and CFA fit indices are the preferred method of determination of model fit. The root mean square error of approximation (RMSEA) value was .09 (95% CI = .078 to .096) which is above the generally accepted cutoff value of .05 for good model fit. MacCallum, Browne and Sugawara (1996) indicate that while .05 is considered “good” model fit, an RMSEA value of .08 is indicative of “adequate” fit with anything over .10 considered “poor” fit (Marsh, Balla, and McDonald, 1988). Given these parameters, the data may be considered adequate fitting to the original validation model.

Two other fit indices that compare the calculated model with a null model were computed. The comparative fit index (CFI) and the Tucker Lewis Index (TLI) have possible values from 0 to 1 with those closer to 1 indicative of better fit. Any value over .90 is considered acceptable with values over .95 considered to be good fitting models. For the cyberbullying data in this study, both the CFI and TLI were .97 indicating a good fitting model.
While the chi-square test indicated a poor fitting model, the large sample size casts doubts on the chi-square as an adequate indicator of model fit. The RMSEA value indicates an adequate fitting model, while the TLI and CFI indicate a good fitting model. These results from a confirmatory factor analysis of the Cyberbullying Survey suggest that the original factor structure of the instrument has been confirmed with the data from the current study and, therefore, the same factors can be used with confidence in further hypothesis testing.

**Summary**

The findings of this study offer results from the pre/post test surveys based on the preservice teacher’s gender, classification, and year in program. Also, results are classified by subscales (beliefs, concerns, confidence levels, and preparations) based on the survey questions. No multivariate significance was discovered for between subjects’ main effects of gender, classification (year in program), or program. There were no statistically significant multivariate between subjects interaction effects of gender by year, gender by program, year by program, or gender by year by program. The beliefs of the preservice teachers resulting after the intervention model was completed increased for between subjects main effects of gender, classification (year in program), or program.

In terms of within subjects change, there was multivariate statistical significance for the main effect of the intervention model, however no within subjects multivariate statistical significance for the interaction effects after the intervention model by gender, by year, by program, by gender by year, by gender by program, by year by program, or by gender by year by program.
CHAPTER V:

DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

The purpose of this study was to explore P-12, elementary, secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations on cyberbullying prevention and intervention prior to and post an intervention model. A pretest and posttest research design with a comparison group was used to test the effect of preservice teachers’ awareness of cyberbullying. Descriptive statistics were utilized in the data analysis to test the hypothesis.

Major findings, limitations, discussion of the findings, implications for preservice teacher education about cyberbullying, conclusions, and recommendations for research are presented.

Discussion of Findings

This study implied that the preservice teachers’ beliefs changed significantly from pretest survey to the post-test survey. The preservice teachers apparently need more training at the university level prior to entering the classrooms to boost their confidence levels, preparations, and to help with any of their concerns. The results from this study revealed the preservice teachers did not feel concerned, well prepared, or confident enough to handle cyberbullying situations regardless of classification. There was a period of two days from pre-test to post-test during which the intervention model based on the Steps to Respect was presented. The study implies that the intervention model had an effect on the preservice teachers’ beliefs about cyberbullying after the intervention model was presented. The program within subjects effect was not significant at the .05 alpha level, it was close enough to statistical significance ($p=.06$) that univariate ANOVAs were conducted to assess differences in individual subscale change at
the program by level after the intervention model. Upon inspection, the concerns \( F=2.05 \) 
\((2,3.13), p=.13\), confidence level \( F=2.61 \) \((2,2.73), p=.08\), and preparations \( F=0.59 \) \((2,3.31), \)
\( p=.56\) were not statistically significant indicating no significant change from pre to post at each
level on these subscales. There was, however, a statistically significant intervention model by
program effect on the Beliefs subscale \( F=4.94 \) \((2,116), p=.008\). These results suggest that there
was a difference in change on the Belief subscale based on program of study (elementary,
secondary, or P-12). Post hoc analysis indicates that there was a 5.2-point positive change in
beliefs for elementary students, and 8.1-point positive change for secondary students, and a 3.5-
point positive change for P-12 students. Simple effects analysis indicates that the pre-test belief
scores are statistically similar for each of the three programs, but at post testing the P-12 score is
lower than the secondary score. These results suggest that for the belief subscale change,
secondary students have a greater gain than the P-12 students. The elementary students were
similar to both P-12 and secondary.

Research Question 1

Is there evidence of construct validity in the survey on school cyberbullying for
preservice teachers? Construct validity of the Cyberbullying Survey was assessed through
confirmatory factor analysis (CFA) techniques using MPLUS 6. The original instrument was
validated with four factors; Concerns (items 1-3), confidence levels (items 4-5), beliefs (items 6-
17), and awareness (items 18-21). Given the ordinal nature of the item level data, a CFA using
weighted least squares mean and variance adjusted (WLSMV) estimation (Muthén, B., du Toit,
S.H.C. & Spisic, D., 1997). The CFA was conducted with the same four latent factors and item
loadings as in the original validation study. Only post intervention level data were used in the
analysis as the combination of pre and post data would violate the assumption of independence.
The chi-square test of model fit was significant, $c^2=506.8$, df=183, $p<.001$, indicating an inadequate fit of the data to the model. Given the large sample size of $n=235$, chi-square results are often misleading and CFA fit indices are the preferred method of determination of model fit. The root mean square error of approximation (RMSEA) value was .09 (95% CI = .078 to .096) which is above the generally accepted cutoff value of .05 for good model fit. MacCallum, Browne and Sugawara (1996) indicate that while .05 is considered “good” model fit, an RMSEA value of .08 is indicative of “adequate” fit with anything over .10 considered “poor” fit (Marsh, Balla, and McDonald, 1988). Given these parameters, the data may be considered adequate fitting to the original validation model.

Two other fit indices that compare the calculated model with a null model were computed. The comparative fit index (CFI) and the Tucker Lewis Index (TLI) have possible values from 0 to 1 with those closer to 1 indicative of better fit. Any value over .90 is considered acceptable with values over .95 considered to be good fitting models. For the cyberbullying data in this study, both the CFI and TLI were .97 indicating a good fitting model.

While the chi-square test indicated a poor fitting model, the large sample size casts doubts on the chi-square as an adequate indicator of model fit. The RMSEA value indicates an adequate fitting model, while the TLI and CFI indicate a good fitting model. These results from a confirmatory factor analysis of the Cyberbullying Survey suggest that the original factor structure of the instrument has been confirmed with the data from the current study and, therefore, the same factors can be used with confidence in further hypothesis testing.
Research Question 2

Is there a change in preservice teachers’ concerns, confidence levels, beliefs, and preparations of cyberbullying after an intervention has been presented to the preservice teachers? In terms of within subjects change, there was multivariate statistical significance for the main effect of the intervention model, however no within subjects multivariate statistical significance for the interaction effects of after the intervention model by gender, by year, by program, by gender by year, by gender by program, by year by program, or by gender by year by program.

Research Question 3

Is there a difference between elementary and secondary preservice teachers’ concerns, confidence levels, beliefs, and preparations regarding cyberbullying before and after the cyberbullying intervention for preservice teachers? There was no change. The secondary teachers had a greater overall awareness of cyberbullying issues. However, elementary and secondary teachers still had a strong concern for cyberbullying after the intervention model was completed. Also, both groups did not feel well prepared or have enough confidence to handle cyberbullying issues in the future.

The secondary level students had a greater gain in the beliefs subscale than the P-12 students. The elementary students were similar to both P-12 and secondary students. These results suggest that there was a difference in change on the Belief subscale based on program of study (elementary, secondary, or P-12). Post hoc analysis indicates that there was a 5.2-point positive change in Beliefs for elementary students, and 8.1-point positive change for secondary students, and a 3.5-point positive change for P-12 students. Simple effects analysis indicates that the pre-test belief scores are statistically similar for each of the three programs, but at post testing the P-12 score is lower than the secondary score.
Implications

The preservice teachers’ beliefs increased significantly more on the secondary level than the elementary and P-12 about cyberbullying. Current literature states that joint efforts are required by all shareholders who are concerned for the safety of the children in prevention and intervention of cyberbullying (Couvillon & Ilieva, 2011; Hinduja & Patchin, 2009; Walker, 2012). The preservice teachers rated themselves at a significantly low rating for having concerns, confidence levels, and preparations about cyberbullying. The increase after the intervention model to the post-test survey was not significant in the concerns, confidence levels, and preparations.

It appears that preservice teachers, in this study, do not receive training regarding cyberbullying. The research indicated that the preservice teachers have not been made aware that cyberbullying is a serious issue in today’s schools on the P-12 level. This study also indicates that elementary preservice teachers do not believe that cyberbullying is a problem. One possible explanation is that cyberbullying is not as visible or audible in the classrooms or hallways as traditional bullying. Teachers have more problems identifying cyberbullying. Cyberbullying is mostly an “off-campus” problem and preservice teachers are not aware that it may be a classroom problem. However, cyberbullying may disrupt a classroom and the entire teaching moment.

The university teacher education program might offer more workshops, classroom assignments, or bring in speakers to raise more awareness to the preservice teachers about cyberbullying. The teachers do not feel confident or well prepared after one intervention model. In any case, more training is needed to better prepare the preservice teachers on how to handle cyberbullying issues for the future.
Also, teachers’ awareness of cyberbullying is very important as teachers must develop and manage skills and knowledge about cyberbullying (Li, 2008). The findings from this study indicate that preservice teachers have limited knowledge regarding cyberbullying awareness and prevention in schools. Beale and Hall (2007) have recommended the following guidelines for administrators to adhere to in order to prevent cyberbullying in schools.

1. Provide students with the proper learning experiences about cyberbullying;
2. Ask school counselors and teachers to collaborate on presenting the information for the students;
3. Enact an anti-bullying policy at the school. The school’s acceptable usage policy should be updated to include cyberbullying consequences. Parental education about cyberbullying should be offered; and
4. Invite the local police department in to share about proper Internet usage. (Beale & Hall, 2007)

Cyberbullying is becoming an increasingly serious issue and requires the awareness of school officials, staff, and parents (Ybarra, Mitchell, Wolak, & Finkelhor, 2008). Ybarra et al. (2008) suggested that as a result of the significant increase in the report of cyber harassment from 2000 to 2005 vigilance is still called for on the part of those who interact with young people.

It is important to create a joint effort between parents and schools to combat cyberbullying. In order to create a joint effort, cooperation is needed between schools and parents (Mason, 2008). It is the responsibility of the school personnel to promote a safe learning environment for students (Campbell, 2005). School personnel should take on the leadership roles in cyberbullying prevention (Mason, 2008). A useful tool in preventing cyberbullying is
professional development about cyberbullying awareness for teachers and staff (Campbell, 2005). Cyberbullying awareness can be increased among students and parents by the school personnel (Chibbaro, 2007).

Another tool for educators to use to combat cyberbullying is communication (Barrett, 2006). The youth are afraid to report cyberbullying incidences for fear of losing cell phone and Internet privileges (Barrett, 2006). In a 2008 study, 90% of the 1,454 12- to 17-year-olds reported they did not tell an adult when they were cyberbullied (Juvonen & Gross, 2008). Paulson (2003) stated it is important that students feel secure enough to allow them to report cyberbullying. Peer support groups are recommended by Paulson (2003) for students to feel secure and report incidences in those groups.

The Steps to Respect program, as described by Frey et al. (2005), was used as a program evaluation to frame the current study. According to Fitzpatrick, Sanders, and Worthen (2004), a program evaluation approach uses methods of analysis by (a) establishing standards by which to judge program quality, (b) providing the collection of relevant information, and (c) applying those standards to the program in an effort to establish its effectiveness, significance, or value.

The Steps to Respect program was designed by the Committee for Children in 1997 to decrease school bullying. Even though the program focused on bullying, the same steps can be applied for recognizing cyberbullying issues. For this study, this framework consists of a four-step intervention process for preservice teachers dealing with cyberbullying. Step 1 is increasing adult monitoring and intervention in cyberbullying events. Li (2008) recommended that a teacher education program include information about cyberbullying; typically, it is not a core component of the teacher education program.
The confidence levels, concerns, and preparations of preservice teachers might possibly increase if there were more training programs or courses for the preservice teachers to take in college other than the one hour session that this study provided them. Instructional staff should receive training to help easily identify troubled students (Frey et al., 2005). According to the Committee for Children (2001) teachers’ awareness and responses to bullying/cyberbullying improved after implementation of an intervention program was in place. Implementation of an intervention program may be an effective tool that educators can use to decrease cyberbullying/bullying and help students build more positive relationships (Frey et al., 2005).

Step 2 is improving systemic supports for socially responsible behavior. Teachers need to be prepared to supervise students learning when using technology in the classroom (Patchin & Hinduja, 2006). Step 2 is designed to help foster a safe and friendly classroom environment. This step also helps teachers recognize the negative outcomes associated with cyberbullying. Rejection by peers is related to multiple negative outcomes such as school dropout, relationship difficulties, and mental health problems (Cowen, Pederson, Babigian, Izzo, & Trost, 1973; Parker & Asher, 1993). Step 3 is changing student normative beliefs that support cyberbullying. Frey et al., (2005) proposes that teachers develop classroom lessons that focus on “empathy, problem solving, and practicing assertiveness skills” (p. 468).

Preservice education is a time of intense study of teaching, instruction, curricula, policy and administration (Ryan, 2009). Step 3 the intervention model trains teachers how to develop instruction for their respective classrooms for cyberbullying prevention. Step 4 is addressing student social-emotional skills that counter cyberbullying and support social competence.

Preservice teachers need to be aware that one-on-one counseling may be needed for their students if their students are in a cyberbullying encounter (Frey et al., 2005). This one-hour
session was not able to give them all the necessary information they might need for preparing them to handle cyberbullying situations in the classroom. In addition, the results for confidence levels, and preparation levels yielded a low result in the post-test survey. Preservice teachers should be aware that, as teachers, individualized sessions and effective strategies should be put into place to help support the students participating in bullying/cyberbullying episodes. The preservice teachers apparently need more training at the university level prior to entering the classrooms to boost their confidence levels, preparations, and to help with any of their concerns. The results from this study revealed the preservice teachers did not feel concerned, well prepared, or confident enough to handle cyberbullying situations regardless of classification.

Limitations of the Study

First, using only a survey method in cyberbullying research is a limitation. Prospective studies should make use of qualitative methods to grasp the awareness of cyberbullying. Data sources were not as accurate as would be the case if face-to-face interviews were completed or if larger samples could be utilized. The fact that only one survey was used also limited findings.

Second, the participants consisted of only education classes during the summer sessions within one university setting. The addition of other semesters such as fall and spring education classes, within the elementary and secondary classes or within another university setting, may have produced different results as preservice teacher populations vary between individual classes.

Third, the sample was geographically limited and may not represent the overall population of preservice teachers’ awareness on cyberbullying within other university settings. This research was conducted at only one university in Alabama in the United States.
Fourth, the sample was voluntary and may not accurately represent the population desired. The population who chose to participate may have been familiar with cyberbullying incidents. Also, those who participated were predominantly females so the male population was not well represented in the survey. If more males had been included in the survey, the results could have been different. Also, there were a lower number of elementary students represented in the survey. Results could have been different had the number of participating elementary preservice teachers been higher.

**Conclusions**

Based on the analysis of the data and limitations noted, the following conclusions are offered.

1. The basis for the Steps to Respect intervention model was useful in providing a framework for this study, as evidenced by an increase in posttest scores;
2. For the *belief* subscale change, secondary students have a greater gain than the elementary and P-12 students.
3. The Steps to Respect intervention model used in this study did not increase the preservice teachers’ concerns, confidence levels, or preparations for cyberbullying.
4. The preservice teachers apparently need more training at the university level prior to entering the classrooms to boost their confidence levels, preparations, and to help with any of their concerns. The results from this study revealed the preservice teachers did not feel concerned, well prepared, or confident enough to handle cyberbullying situations regardless of classification.
Recommendations for Future Research

There are several recommendations for future research based upon the results, conclusions, and limitations of this study.

1. Future studies should not be limited to one geographical area. Replication of this study in other university settings is essential to determine awareness of cyberbullying awareness and prevention among preservice teachers;

2. A follow-up study should try to include a more diverse population since this current study had research participants from one semester within one university setting. No prior training had been done at the university on cyberbullying. The only known knowledge of cyberbullying the preservice teachers had of cyberbullying was news the students had read.

3. A study with qualitative data from preservice teachers might reveal more about how preservice teachers perceive cyberbullying.

4. The preservice teachers apparently need more training at the university level prior to entering the classrooms to boost their confidence levels, preparations, and to help with any of their concerns. The results from this study revealed the preservice teachers did not feel concerned, well prepared, or confident enough to handle cyberbullying situations regardless of classification.

5. A study with online surveys instead of face to face surveys. Determine whether the results would be the same regarding the same study using a different method of survey use.
REFERENCES


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APPENDIX A

PRE-TEST SURVEY

Survey on School Cyberbullying for Preservice Teachers

About You:  Gender:  Male [ ]    Female [ ]    Student Campus Id Number___________
Year in Program:  Sophomore [ ]    Junior [ ]    Senior [ ]    Graduate [ ]

Circle the program you are admitted to:
Elementary    Secondary    P-12

Please state how much you agree with the following statements. Circle a number from 1-5 where 1 states you strongly disagree and 5 states you strongly agree. Please think of children in Kindergarten to Grade 12 in local schools when answering these questions.
Strongly Disagree =1    Strongly Agree = 5

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<td>1.19 My current university education has been preparing me to manage cyberbullying</td>
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<td>1.20 I want to learn more about cyberbullying in my university education</td>
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<td>1.21 In comparison to other topics I want covered in my university education, cyberbullying is just as important</td>
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Do you personally know anyone who has experienced cyberbullying?

Have you had any previous training in cyberbullying awareness and intervention (i.e., workshops, course module, other)?

Do you have any other comments about school cyberbullying? Please list below.
APPENDIX B

POWERPOINT PRESENTATION FOR PRESERVICE TEACHERS

Presenter says to audience:
Welcome to today’s workshop on Cyberbullying Prevention and Intervention. Today I will be discussing cyberbullying prevention and intervention techniques Based on the Steps to Respect program. The Steps to Respect program was designed by the Committee for Children in 1997 to decrease school bullying. Since a shift in technology has increased and as a society we are seeing students at all ages experience cyberbullying issues. I will show you today how to implement prevention and intervention steps in your classroom.

My name .............. [Introduce yourself by saying your name, where you are from, and briefly your experience, interest and knowledge base of cyberbullying. Allow approximately 3—5 minutes per presenter.] Ask questions such as: How many of you are familiar with cyberbullying? Have any of you ever had to deal with the issue within your schools?
Presenter says to audience:
Before we begin, let's take a look at the outline for today's workshop. This workshop will be about 45 minutes. We will begin the discussion of cyberbullying with an examination of the current electronic media habits of youth. Next, we will discuss the Steps to Respect Intervention program of Prevention, Intervention, and Education, then will have the closing thoughts on cyberbullying.
Bullying vs Cyberbullying

- Occurs on school property
- Student has poor relationships with his/her teachers
- Physical: Hitting, punching & shoving
- Verbal: Teasing, name calling & gossip
- Nonverbal: Use of gesture

(Committee for Children, 2001)

- Usually occurs off school property
- Student has good relationships with teachers
- Electronic aggression not easily observed
- Electronic teasing and harassment are not easily observed
- Electronic sights and exclusion are not easily observed

(Yoon, 2010)
WHAT IS CYBERBULLYING?

- Cyberbullying involves the use of information and communication technologies such as email, 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 (Robey, 2005). Comments posted on social networking sites such as Facebook, twitter, and Instagram can influence students' behavior in school (Feinberg and Robey, 2005, p.10). The school system may not be able to interfere if bullying occurs after school hours or off school property (Anderson & Sturm, 2007). Schools have restricted access to discipline when the cyberbullying occurs after school hours, unless cyberbullying comes into the school or threatens the school. These disruptions that come into school sometimes have legal consequences (Bartch & Cheprakolkit, 2002). Cyberbullying has no limitations. It can happen anytime, day or night. It can happen to any student regardless of race or socioeconomic background. The most significant part of cyberbullying is that the bully remains anonymous online which is very different from traditional face-to-face bullying (Keith & Martin, 2005; Sparling, 2004). While cyberbullies can remain anonymous, the effect of repeated harassing, bullying, or sending messages can cause physical and psychological damage to the recipient long after the incidents of ridicule have ended (Willard, 2007). Research suggests educational professionals should be trained to recognize and respond to online harassment (Wolak, Finkelhor, Mitchell, & Ybarra, 2008).
Step 1

- Increase adult monitoring and intervention in cyberbullying in the classroom (Frey et al., 2006)

What teacher should watch for:
- Academic Problems
- Social Problems
- Emotional Problems

Presenter says: (once again presenter does not have to read aloud citations)
Frey’s Steps to Respect
Step 1 -- Step 1 is increasing adult monitoring and intervention in cyberbullying events.

What teacher should watch for:
- Academic Problems
- Social Problems
- Emotional Problems

Academic Problems:
Children who are bullied/cyberbullied develop negative attitudes about school as early as Kindergarten (Kochenderfer and Ladd, 1996). Academic performance usually declines along with school attendance and school dropout (Schwartz and Gorman, 2003; Slee, 1994; Sharp, 1995).

Social Problems:
Children tend to blame the children that are cyberbullied — it is their own fault in other words (Oliver, Hoover, and Hazler, 1994). Targeted children are usually seen as “nerdy” or outcasts (Charach, Pepler, and Ziegler, 1995).

Emotional Problems:
Children can be targeted as young as Kindergarten age. These emotional consequences can follow them throughout school and lead into adulthood in the form of lower self-esteem and increased risk of depression — and even lead to suicide for some young people (Olweus, 1995).
Sites to watch for

1. Picaspot: users anonymously post comments about other people. In essence, it is an open invitation for insults and gossip, and has been linked to the suicide of 17-year-old Alexis Pillingham.

2. Chatroulette
Users are randomly matched with strangers around the world to engage in webcam-based conversations. According to a March 2010 survey conducted by Nielsen, 13 percent of users are either nude or appear to be engaging in a lewd act.

3. BitKan
Features live streaming videos, audio, images, and video chat. With more than 4 million members and content from networks like MTV, Ox, and DSB, the site seems to be reputable. However, the New York Times reported three predator accounts linked to the site.

4.磷sky
A location-based app in which users identify where they're located in return for virtual badges like “Mayor” and “Super Mayor.” It can be used to broadcast exclusion and could be dangerous since kids could be revealing their locations to strangers.

5. 4chan
An anonymous digital bulletin board mostly used for the posting of manga and anime. Its “no-users” policies have provoked media attention. Source: SafetyWeb
Although teachers perceive themselves as intervening often against bullying, observational research shows teachers intercede in only 15% to 18% of classroom bullying episodes (Craig, Pepler, & Afifi, 2000).
Step 2

- Foster a safe and friendly classroom environment.
- Supervise
- Supervise
- Supervise

The use of computers, iPads, cell phones, or any other digital devices allowed in the school.

To address cyberbullying in particular, school personnel should carefully monitor computer use at school, block access to certain websites, and provide specific trainings on cyberbullying for all school staff and parents. (Hinduja, 2006)

Presenter says:
Step 2 -- Step 2 is improving systemic support for socially responsible behavior. Teachers need to be prepared to supervise students learning when using technology in the classroom (Patchin & Hinduja, 2006).

The assistant principal where I teach sends us emails very often saying: Supervise, Supervise, Supervise—reminding us to watch students at all times! (Use personal example if you have one)

To address cyberbullying in particular, school personnel should carefully monitor computer use at school, block access to certain websites, and provide specific trainings on cyberbullying for all school staff and parents.
"A teacher today needs to have keen ears and the probing eyes of a sentinel. He needs to have a vigilant inquisitive mind but, more importantly, a caring core, which has always been the mortar that binds together the building bricks of knowledge."  

(Comute, 2012)
Step 3

- Change student normative beliefs that support cyberbullying. (Frey et al., 2005)

Classroom Lessons – Prevention
Local Police Departments
The Olweus Bullying/Cyberbullying Program
Rachel’s Challenge
Steps to Respect by the Committee for Children
Teacher prepares the lesson

*Some intervention programs charge a fee to present to the school.

Presenter Says:
Step 3 in Frey’s Steps to Respect includes the intervention model will train teachers how to develop instruction for their respective classrooms for cyberbullying prevention.

There are several cyberbullying intervention models are teachers, administrators, counselors, and school systems are utilizing for their school system.

Local Police Departments (personal example) – our school system asks our local police department to come in and speak to our 9th and 10th graders for an hour and 11th and 12th graders for an hour about cyberbullying.
The Olweus Bullying/Cyberbullying Program
Rachel’s Challenge
Steps to Respect by the Committee for Children
Teacher prepares the lesson

*Some intervention programs charge a fee to present to the school.
Step 4

- Addressing student social-emotional skills that counter cyberbullying and support social competence. (Frey et al., 2005)
  - Provide one-on-one counseling to students
  - Teach lessons about "friendships"

Presenter Says: Step 4 in Frey’s Steps to Respect includes Addressing student social-emotional skills that counter cyberbullying and support social competence (Frey et al., 2005).

Provide one-on-one counseling to students

Teach lessons about “friendships” — it can provide a buffer to cyberbullying and teaching friendship skills is something students from Kindergarten to 12th grade need (Frey et al., 2005)
Roles

- Parents
- Teachers
- Counselors
- Administrators

Presenter Says: There are several important roles in keeping our students safe from cyberbullying.

The first role is of the parents. Parents can start by educating themselves and stay current in their technological knowledge. They need to be aware of what their children and youth are doing on the computer, e.g., what they are posting on websites and communicating in instant messages and e-mails.

The second role is of the teachers (educators) Supervise, Supervise, Supervise—be the eyes and ears of your classrooms.

The third role is of the counselors. Stay aware of cyberbullying policies and procedures in your schools and get to know your students.

The last role is of the administrators. Address any situation of cyberbullying that is presented to you by students, parents, or teachers.

Implement a cyberbullying program into your school.
Informational Websites

- **www.nopc.org** provides information about stopping cyberbullying before it starts.
- **StopCyberbullying Before It Starts (PDF)** provides useful information for parents.
- **Cyberbullying us** provides cyberbullying research, stories, cases, downloads, fact sheets, tips and strategies, news headlines, a blog, and a number of other helpful resources on their comprehensive public service website.
- **www.stopcyberbullying.org** has a fun quiz to rate your online behavior, information about why some people cyberbully, and how to stop yourself from cyberbullying.
- **www.wiredsafety.com** provides information about what to do if you are cyberbullied.
- **www.stopbullyingnow.com** has information about what you can do to stop bullying.
- **www.rachelschallenge.org** has information for educators about cyberbullying and school violence.
References

- Education Canada, 70(8), 97-103.
- Exceptional Education Quarterly, 18(3), 5-14.
- Phi Delta Kappan, 74(2), 109-114.
- Teaching Exceptional Children, 34(5), 89-94.
Closing

- 10 minute Question/Answer Session with Presenter
- Presenter Information:
  Melody Murphy
  The University of Alabama
  Email: mmurphy@tuscumbia.k12.al.us

Allow 10-15 (presenter’s discretion) for questions/answers from the preservice teachers about the presentation.
At this time the post-test survey will be handed out to the preservice teachers to answer before exiting the classroom.
APPENDIX C

POST-TEST SURVEY

Survey on School Cyberbullying for Preservice Teachers
About You: Gender: Male [ ] Female [ ] Student Campus Id Number__________
Year in Program: Sophomore [ ] Junior [ ] Senior [ ] Graduate [ ]
Circle the program you are admitted to:
Elementary Secondary P-12
Please state how much you agree with the following statements. Circle a number from 1-5 where
1 states you strongly disagree and 5 states you strongly agree. Please think of children in
Kindergarten to Grade 12 in local schools when answering these questions.
Strongly Disagree =1 Strongly Agree = 5

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<td>1.15 Schools should link with community resources to deal with cyberbullying</td>
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<td>1.16 TV and other media should discuss cyberbullying</td>
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<td>Statement</td>
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<td>1.17 Children should receive counseling to deal with cyberbullying</td>
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<tr>
<td>1.18 School resources should be used to help teachers deal with cyberbullying</td>
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<tr>
<td>1.19 My current university education has been preparing me to manage cyberbullying</td>
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<tr>
<td>1.20 I want to learn more about cyberbullying in my university education</td>
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<tr>
<td>1.21 In comparison to other topics I want covered in my university education, cyberbullying is just as important</td>
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</tbody>
</table>

Do you personally know anyone who has experienced cyberbullying?

Have you had any previous training in cyberbullying awareness and intervention (i.e., workshops, course module, other)?

Do you have any other comments about school cyberbullying? Please list below.
APPENDIX D

PERMISSION TO USE DR. LI'S SURVEY ON SCHOOL CYBERBULLYING FOR PRESERVICE TEACHERS

Thank you for your interest in using Dr. Li's survey on school cyberbullying for your research or educational purposes. Please note that the survey is copyrighted material and cannot be reproduced or distributed without permission.

To obtain permission, please contact Dr. Li's research assistant at research@university.edu or phone 555-1234. Please provide the following information:

- Name of Institution
- Number of Participants
- Purpose of Survey

Once permission is granted, you will receive a copy of the survey and any necessary permissions for use.

Dr. Li's research assistants are available to provide guidance and support throughout the process.

Thank you for considering Dr. Li's survey for your academic or educational needs.

Sincerely,

[Dr. Li's Name]

[Research Assistant's Contact Information]
APPENDIX E

IRB APPROVAL

Date to Committee: April 8, 2014

Principal Investigator(s): Melody Murphy
Dr. Leah Whitten

Title of Research Proposal: P-12 Pre-service Teachers Awareness on Cyberbullying

Protocol Number: 063

Date Approval Ends: One Year from Date Approved

IRB Action: This proposal complies with University and Federal Regulations for the protection of human subjects (45 CFR46). Approval is effective for a period of one year from the date of this notification.

______________________________ Date Approved: 5-2-2014
Dr. Ryan Zayac, Chair
Human Subjects Committee
May 5, 2014

Melody Murphy
ELPTS
College of Education
Box 870232

Re: IRB # 14-OR-157, “P-12 Preservice Teachers Perceptions on Cyberbullying”

Dear Ms. Murphy:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on April 7, 2015. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent forms to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

Stuart Usdan, Ph.D.
Chair, Non-Medical IRB
The University of Alabama