THE RELATIONSHIP BETWEEN HEXACO PERSONALITY TRAITS AND CYBERBULLYING PERPETRATORS AND VICTIMS

by

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Liberty University

A Dissertation Presented in Partial Fulfillment Of the Requirements for the Degree

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ABSTRACT

There is an increasing problem in high schools across America with the threat of cyberbullying from both a perpetration and victimization standpoint. Cyberbullying is a problem for many youth because of the inability to escape the use of technology and the incapability of escaping the online community. This non-experimental predictive correlational study examined personality traits, using the HEXACO personality structure model, to predict the susceptibility of freshman high school students either being perpetrators or victims of cyberbullying. There were a total of 256 participants who took the Cyberbullying and Online Aggression survey along with the HEXACO personality model survey. This study took place at a large rural high school in Upstate South Carolina and all participants were 9th graders between the ages of 14 and 15 years old. Results showed a statistical significant relationship between Honesty-Humility and Conscientiousness and cyberbullying perpetration. There was also a statistical significant relationship found between Emotionality, Extraversion, and Conscientiousness and cyberbullying victimization. This study has contributed to the literature in the area of cyberbullying perpetration and victimization by identifying specific HEXACO personality traits as predictors. A future study that examines gender, race, and socioeconomic status with regards to personality is recommended to see if those variables could have a statistical significant relationship with cyberbullying perpetration or victimization.

Keywords: cyberbullying, HEXACO, online disinhibition, moral disengagement
Dedication

This project is dedicated to my wife, Jennifer and three children Turner, Trevor, and Taylor. Each of you has sacrificed important family time in order for me to work on “the book.” You have all been very committed during the entire process and I could not have finished without your constant love and support. I am very blessed to have each of you in my life.
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CHAPTER ONE: INTRODUCTION

Background

The 21st century has brought about many new technological inventions that have made communication among people much easier. People literally live in a world today that allows them to have an unlimited amount of information at their fingertips. The invention of the Internet over 20 years ago has allowed mankind to communicate in ways that were never thought possible. Emails, instant messaging, text messaging, Facebook, Twitter, and the like are all forms of communication that are common in today’s society. Electronic communication allows for quick, instant, and unfortunately in many cases, constant access. The constant access and availability of the Internet can lead to cyberbullying because of the amount of information teens disclose on social networking sites through posting, blogging, and chatting (Sengupta & Chaudhuri, 2011).

Cyberbullying has become a negative result of the quick, instant, and constant access of electronic communication for many high school students (Dilmac & Aydogan, 2010; Wang, Iannotti, & Nansel, 2009). Although there is not a definitive definition for cyberbullying, researchers have indicated that it is an intentional act of repetitive aggression and intimidation through electronic means such as computers and cell phones (Mishna, 2012). Cyberbullying has many forms, which include but are not limited to inappropriate or explicit messages and photos, threatening emails, comments, posts, blogs, and demeaning or hurtful texts (Gorzig & Frumkin, 2013; Ybarra & Mitchell, 2004). Hinduja and Patchin (2011) demonstrated how often technology is used during the weekly lives of teens. There were 83% responding who said they (teens) used a cell phone weekly and 77.3% who also admitted to sending a text message during the same week. The data also show that over 40% of the respondents took pictures with their cell phone,
used their cell phone at school, used instant messaging, email, and Facebook during their weekly activities (Hinduja & Patchin, 2011).

There has been some research conducted on the link between personality and traditional bullying (Barlett & Anderson, 2012; Bollmer, Harris, & Milich, 2006; Sutton & Keogh, 2000; Tani, Greenman, Schneider, & Fregoso, 2003). However, there have not been many studies conducted on the link between personality and cyberbullying, especially in the United States (Ang, Tan, & Mansor, 2011; Celik, Atak, & Erguzen, 2012; Eksi, 2012). Several studies have also linked traditional bullying with cyberbullying and have established a need for more preventative measures and interventions to be placed in our schools (Casas, Rey, & Ortega-Ruiz, 2013; Dooley, Pyzalski, & Cross, 2009; Kowalski, Morgan, & Limber, 2012; Schneider, O’Donnell, Stueve, & Coulter, 2012; Wang, Nansel, & Iannotti, 2011).

Cyberbullying is a growing problem that is occurring at the high school level nationwide (Patchin & Hinduja, 2012; Smith et al., 2012; Wang, Iannotti, & Nansel, 2009). The continuing advancement of technology has allowed students the opportunity to stay in constant contact with each other through the Internet and cell phones. Gone are the days when conflicts between students only occur in a traditional or face-to-face manner. Cyberbullying has become a new form of harassment that can affect a person at any time and any place. The topic of cyberbullying is significant because there are no boundaries as to who is affected. People of all ages and from all parts of the world deal with cyberbullying daily, as do many schools (Juvonen & Gross, 2008; Li, 2007; Wang et al., 2009; Ybarra & Mitchell, 2004).

Traditional bullying is defined as, “intentional, repeated aggression perpetrated by a more powerful person or group on a less powerful victim” (Shetgiri, Lin, Avila, & Flores, 2012, p. 2280). Cyberbullying, while being an act of aggression, has several different characteristics than
traditional or face-to-face bullying. First, a person that is participating in cyberbullying does not have to be bigger or more powerful. There is no strength factor involved in cyberbullying; therefore, a weaker person could easily be the perpetrator instead of the stereotypical victim (Barlett & Gentile, 2012). Second, cyberbullying has the characteristic of anonymity. The fact that perpetrators can conceal their identity in the cyber world from their victims is an act that cannot occur in face-to-face confrontations (Hinduja & Patchin, 2009; Kowalski et al., 2012). The final characteristic that distinguishes cyberbullying from the traditional format is the lack of potential for physical contact. A face-to-face bully has the opportunity to make physical contact with the victim during the confrontation, while the cyberbully cannot become physical via the use of technology (Barlett & Gentile, 2012; Hinduja & Patchin, 2009). Each of these characteristics are important and fundamental differences between traditional and cyberbullying because with them, the victim can become the perpetrator (Wade & Beran, 2011).

A recent study examined bullying and personality from an adaptive approach using 310 middle school participants with a mean age of 13.6 years old. The participants were asked to fill out a questionnaire on bullying. The questionnaire asked how often the participants bullied others with regards to “racial/ethnic, physical, verbal, indirect, or sexual bullying at school” (Book et al., 2012, p. 219). The participants then took the 100-item version of the HEXACO PI-R. The final measurement tool was a survey on aggression. There was a significant negative correlation found in traditional bullying with Honesty-Humility, Emotionality, Agreeableness, and Conscientiousness traits. The researchers found that the Honesty-Humility trait was the most critical multivariate predictor of traditional bullying. They agreed that the HEXACO model was advantageous to the study, as opposed to the Big 5 model, because of the Honesty-Humility trait (Book et al., 2012). Another recent study in the United States examined traditional and cyber
aggressors and victims, comparing psychosocial characteristics (Sontag, Clemans, Graber, & Lyndon, 2011). The study reported that cyber aggressors actually reported lower levels of reactive aggression. The data also showed that cyber victims reported higher levels of reactive aggression (Sontag et al., 2011).

The theoretical framework that guided this study is Albert Bandura’s Social Cognitive theory. The Social Cognitive theory (SCT) suggests that people learn by observing others in their environment, through their personal experiences, and behaviors that nurture cognitive development (Bandura, 1986). Bandura (2002) described moral disengagement as an act of an individual who removes himself via “moral self-sanctions” to actually “disengage” from a cruel conduct. “Selective activation and disengagement of self-sanctions permits different types of conduct by people with the same moral standards” (Bandura, 2002, p. 102). Therefore, an individual could exhibit reprehensible conduct (i.e. cyberbullying) because he has morally justified it in his mind and displaced his behavior, but that same behavior then leads to detrimental effects on another person, possibly a friend, who becomes the victim.

Suler (2004) identified the term online disinhibition effect, which states that people self-disclose or even act out in the online world. This type of character that is exhibited online is something that they may not do ordinarily in a face-to-face setting. Individuals in cyber space, according to Suler (2004, 2005), can potentially exhibit up to six factors (dissociative anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination, and attenuated status/authority) that create an online disinhibition effect causing them to become less restrained in their actions.

Cyberbullying is a growing problem nationwide that needs attention. There have been several studies conducted in this field recently that have examined various topics of discussion.
The key to controlling cyberbullying is early intervention with perpetrators and victims. It is important to gain a better understanding of both perpetrators and victims of cyberbullying. It was the goal of this particular study to provide some insight on potential perpetrators and victims of cyberbullying through the personality traits of individuals.

**Problem Statement**

Administrators and teachers alike have worked together in many instances to identify traditional bullies and have used preventative measures to stop the behavior and to protect the victims. However, cyberbullies can be hidden from the mainstream and wreak havoc on their victims at all times of the day and night (Hinduja & Patchin, 2009). There have been a few studies recently conducted on the effects of cyberbullying with perpetrators and victims (Barlett & Gentile, 2012; Dilmac & Aydogan, 2010; Gorzig & Frumkin, 2013; Wang, Nansel, & Iannotti, 2011). There have also been a few studies examining various models of personality traits and their relationship with perpetrators and or victims of bullying (Bollmer, Harris, & Milich, 2006; Book et al., 2012; Sutton & Keogh, 2000; Tani et al., 2003). However, these research studies have been conducted with a younger age group and lacked racial diversity in some instances.

Cyberbullying is an ongoing problem that some teenagers face on a daily basis. Any high school student is susceptible to cyberbullying, which adds significance to the problem, because of the easy access to technology. Interventions to help curb cyberbullying can be better developed once the cause of such atrocities can be identified. The problem is there have been no studies conducted on cyberbullying and personality using the HEXACO model. Therefore, there is a need for more research on personality traits and their relationship to cyberbullying in perpetrators and victims (Book, Volk, & Hosker, 2012).
Purpose Statement

The purpose of this non-experimental, predictive correlational study was to examine the personality of high school freshmen, using the HEXACO personality model and its relationship with perpetration or victimization of cyberbullying, as predicted by the Cyberbullying and Online Aggression survey. The study utilized the freshman class (i.e. 9th graders) at a large high school in Upstate South Carolina. The predictor variables were the six dimensions of the HEXACO personality model: (a) Honesty-Humility, (b) Emotionality, (c) Extraversion, (d) Agreeableness, (e) Conscientiousness, and (f) Openness to Experience.

Honesty-Humility can be defined as a person who is modest, fair and sincere. Emotionality can generally be defined as a person who exhibits anxiety, fearfulness, and dependence. The definition of extraversion describes a person with liveliness, expressiveness and social boldness (Lee & Ashton, 2012). Agreeableness can be defined in terms of patience, forgiveness, flexibility, and gentleness. The conscientiousness trait is generally defined as those who are diligent, organized, and prudent. An openness to experience trait is defined as one who is creative and inquisitive (Ashton & Lee, 2007). The criterion variables are the perpetrators and the victims of cyberbullying, as predicted by the Cyberbullying and Online Aggression survey. A perpetrator is generally defined as the aggressor (e.g. bully) in the context of this study, while the victim is the person or persons being bullied (Dilmac & Aydogan, 2010). This study aimed to discover these causes by examining the HEXACO personality model on high school freshmen and their likelihood, based on the six personality traits, of being either a perpetrator or a victim of cyberbullying.

Significance of the Study

The current study provided insight into which personality trait(s), according to the
HEXACO model, best predict the likelihood of freshman high school students being either a perpetrator or a victim of cyberbullying. There have been no studies, as of this writing, identifying HEXACO personality traits of perpetrators and victims of cyberbullying. This study addressed the issues of cyberbullying and its consequences for perpetrators and victims. Cyberbullying is a growing problem that will continue to impact our youth and the importance of identifying potential perpetrators and victims is paramount. There is a need for more education on the subject of cyberbullying across the elementary and secondary landscapes. Specific interventions put in place during these crucial years can possibly have a positive impact on potential perpetrators and victims of cyberbullying. The present study looked to extend the research of the HEXACO personality model to high school students, in particular freshmen, to potentially discover stronger personality relationships with both perpetrators and victims of cyberbullying.

**Research Questions**

The research questions for this study are:

**RQ1:** How accurately can the likelihood of being a perpetrator of cyberbullying be predicted from a linear combination of HEXACO measures (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students?

**RQ2:** How accurately can the likelihood of being a victim of cyberbullying be predicted from a linear combination of HEXACO measures (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students?
Null Hypotheses

The null hypotheses for this study are:

\( H_0: \) There will be no significant predictive relationship between the criterion variable (the likelihood of being a perpetrator of cyberbullying) and the linear combination of predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students as measured by the HEXACO instrument.

\( H_0: \) There will be no significant predictive relationship between the criterion variable (the likelihood of being a victim of cyberbullying) and the linear combination of predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students as measured by the HEXACO instrument.

Definitions

*Asynchronicity:* The process of not communicating in real time on the Internet when emailing, blogging, or messaging (Suler, 2004).

*Cyberbullying:* The “willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices” (Hinduja & Patchin, 2009, p. 5).

*Dissociative anonymity:* The act of not owning up to one’s own identity, either partially or in full, on the Internet (Suler, 2004).

*HEXACO model:* The six basic dimensions of personality which include: Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience (Lee & Ashton, 2012).
**Online Disinhibition Effect (ODE):** The process of acting out more frequently or intensely and feeling less restrained while on the Internet (Suler, 2004).

**Social Cognitive Theory:** The act of people learning behavior, good or bad, through the observation of others. “The social portion of the title acknowledges the social origins of much human thought and action; the cognitive portion recognizes the influential contribution of cognitive processes to human motivation, affect, and action” (Bandura, 1986, p. 65).

**Moral Disengagement:** “Mechanism through which moral self-sanctions are selectively activated and disengaged from detrimental behavior at different points in the self-regulatory process” (Bandura, 2002, p. 103).

**Social Networking:** The use of common language through technology such as a cell phone or computer to communicate and to connect with others on the Internet (Hinduja & Patchin, 2009).

**Cyberbully Victim:** A person who has been harmed repeatedly through electronic means of communication (Kowalski et al., 2012).

**Cyberbully Perpetrator:** A person who has repeatedly harmed others through electronic means of communication (Kowalski et al., 2012).
CHAPTER TWO: LITERATURE REVIEW

Introduction

The purpose of this literature review is to examine perpetration and victimization in cyberbullying as it relates to the HEXACO personality traits. Albert Bandura’s Social Cognitive Theory (SCT) will serve as the theoretical framework. Within the framework of the SCT, moral disengagement will also be examined. The theoretical framework will also include the Online Disinhibition Effect as it relates to cyberbullying. The SCT, the concept of moral disengagement, and the Online Disinhibition Effect will encompass the theoretical framework of this work. Traditional bullying will be discussed and compared with cyberbullying. A more in depth examination of cyberbullying is offered, which includes: historical perspectives, types, current research, and the law. The final section of the literature review will involve the six facets of the HEXACO personality model and personality studies.

Theoretical Framework

Albert Bandura’s Social Cognitive Theory (SCT) is based on the premise that people learn through the observation of others. Bandura argued that humans actually learn more through the observation of others, whether it be positive or negative, than they do through personal experiences. This occurrence of observational learning is fortunate because without it, humans would have to experience everything themselves (Bandura, 1986). Children model behaviors that they observe at home and at school from parents, teachers, and their peers. A one-time incident would not necessarily influence a child to bully, but repeated measures could lead to this type of activity according to the premise of the SCT.

The SCT can help explain how modeled behaviors from home or from peers in a school setting could lead to aggression. This same aggression could even lead to a higher level of social
dominance among peers, which in turn could result in tangible rewards such as increased
popularity and power (Mishna, 2012). “The effect [of the model] will be stronger if the observer
has a positive evaluation of the model, for example, perceive, him/herself as tough, fearless, and
strong” (Olweus, 1993, p. 43). Therefore, observing aggressive behaviors that are seemingly
rewarded can lead to more aggressive behavior by the observer (i.e. bully). Bauman (2009)
stated that a person’s moral behavior is a function of moral reasoning in SCT. According to
Hinduja and Patchin (2008), the leading researchers in cyberbullying, all forms of bullying can
indeed be learned actions because bullying is peer aggression in its purest form. “Social
cognitive theory may hold utility in explaining the phenomenon of victims or observers of
cyberbullying who eventually become cyberbullies themselves, through the process of social
learning from direct experiences or vicarious observations” (Tokunaga, 2010, p. 285).

Bandura (2002) described moral disengagement as an act of an individual who removes
himself via “moral self-sanctions” to actually “disengage” from a cruel conduct. “Selective
activation and disengagement of self-sanctions permits different types of conduct by people with
the same moral standards” (Bandura, 2002, p. 102). Everyone develops a moral self, and in that
development, people adopt standards that are right and wrong. Bandura refers to this process as
self-regulatory and states that all people monitor themselves and judge themselves on their own
moral standards. According to Bandura, moral disengagement begins in the early years of life.
“It contributes to social discordance in ways that are likely to lead down dissocial paths. High
moral disengagers experience low guilt over injurious conduct” (Bandura, 2002, p. 115).
Bandura (1986) discovered that moral disengagement occurs in a social context and that a
person’s internal self-regulatory mechanisms could actually weaken in a social environment.
“The technological world in which youth socialize may be a social context that promotes moral
disengagement” (Bauman, 2009). Some characteristics of those that bully defined by Olweus (1993) are dominant personalities, quick tempered, impulsivity, proactive/reactive aggressors, and show no empathy toward victims. Bullies could be categorized as what Bandura (2002) refers to as “facile moral disengagers.” These people exhibit a higher level of violence as opposed to those who “bring moral self-reactions to bear on their conduct.” “Moral engagement against destructive means can be enhanced in children by peer modeling” (Bandura, 2002, p. 115). Campbell, Slee, Spears, Butler, and Kift’s (2013) recent study found that through moral disengagement a student can protect themselves from the negative reactions that are associated with bullying. Students disengage by “restructuring the harmful behavior as socially acceptable, believing the victim ‘deserved it’, diffusing responsibility for the action, or minimizing the harmful consequences of the bullying” (Campbell et al., 2013, p. 621).

The Online Disinhibition Effect (ODE) is the process of everyday users of the Internet participating in online activities and doing things in cyberspace that they might never do in face-to-face real life situations (Suler, 2004). According to Suler there are two ways in which disinhibition can be applied: benign disinhibition and toxic disinhibition. Benign disinhibition refers to revealing certain feelings, emotions, or fears online, while toxic disinhibition involves using rude language, anger, hatred, or threats in an online environment. Cyberbullies involve themselves in toxic disinhibition mostly because of a combination of several key factors of online disinhibition for example: dissociative anonymity, invisibility, asynchronicity, and a minimization of status and authority.

Dissociative anonymity pertains to one’s identity being partially or completely hidden online. A person could be involved in an online chat and be using a fabricated screen name or email address that would help conceal their identity. “When people have the opportunity to
detach their actions online from their in-person lifestyle and identity, they feel less vulnerable about self-disclosing or acting out” (Suler, 2005, p. 185). Invisibility is not defined as others not knowing the identity of a person, but rather the actual person being “hidden” behind the computer or cell phone. Suler stated that physical invisibility can create the disinhibition effect because it allows people to avoid the reactions and body language of others. People also do not have to worry about their own actions or reactions when communicating online because of the cloak of invisibility. Campbell et al. (2013) stated the results of their recent study could possibly be explained through the online disinhibition effect and the cloak of anonymity that is provided through the Internet.

Asynchronicity is another factor of the ODE because many online communications do not occur in real-time. The fact that email or a Facebook post may not get an immediate reply allows the person who sent the initial communication to become disinhibited. The person who sent the message does not have to deal with an immediate reaction. “In real life, the analogy might be speaking to someone, magically suspending time before that person can reply, and then returning to the conversation when one is willing and able to hear the response” (Suler, 2004, p. 323). The perpetrator in this situation would not be observing an immediate reaction to the victim and may internalize that it was a joke or that the victim’s feelings were not hurt (Bauman, 2009). The final factor of ODE is a minimization of status and authority. Suler (2005) explains how in cyberspace everyone is virtually on the same playing field. A person may feel inferior to someone else in a face-to-face meeting, but online many times those fears subside and the inferiority dissipates. “Indeed ODE, which refers to a loosening of moral restrictions and inhibitions during online interaction that would otherwise be present in face-to-face interaction,
itself can represent a variation of moral disengagement, allowing the individuals to behave in ways that are contrary to their moral code” (Gini, Pozzoli, & Hymel, 2014, p. 58).

**Traditional Bullying**

Olweus (1993) defined bullying as an intentional and repeated aggressive behavior, which involves an imbalance of power between the victim and bully. The research definition of traditional bullying does not include such things as a one-time incident, playful fighting, or good natured teasing. However, indirect attacks, which can encompass social and relational bullying, are included (Stassen Berger, 2007). Physical bullying includes contact such as hitting and kicking, while verbal bullying deals with name-calling and derogatory remarks. According to Stassen Berger (2007), verbal bullying is more common than physical bullying.

Olweus (2003), as the leading researcher in traditional bullying, found that boys bully other students more than girls. The research also showed that about 50% of girls reported being bullied by other boys. A higher percentage of boys reported being victims of bullying and girls reported a smaller percentage of physical bullying. Girls exhibited more subtle types of bullying such as exclusion from peer groups, rumors, and manipulation. Another recent large-scale survey was conducted by Craig et al. (2009) in 40 countries that totaled 202,056 respondents. Of those, 10.7% \((n = 21,192)\) reported that they bullied others, 12.6% \((n = 24,919)\) reported being bullied and 3.6% \((n = 7,138)\) reported being both a victim and a bully. There was a total of 22.2% \((n = 1,782)\) of American boys and 16.6% \((n = 1,973)\) of American girls that reported regular involvement in bullying (victim, bully, bully-victim). Olweus and Limber (2010) reported that most bullying occurs without the incitement of the targeted victim. “What sets bullying apart from other forms of abuse, such as child abuse and domestic violence, is the
context in which it occurs and the relationship of the parties involved” (Olweus & Limber, 2010, p. 125).

There are obvious comparisons between traditional bullying and cyberbullying. However, there are also key differences between the two forms of bullying. Traditional bullying encompasses face-to-face meetings, occurs at school, occurs during the school day, and is captive to a smaller audience. Cyberbullying on the other hand, can be anonymous, can occur at home, is not limited to space or time, and captivates a much larger audience (Gorzig & Frumkin, 2013; Hinduja & Patchin, 2009; Olweus, 1993; Wang et al., 2011).

Steffgen and Konig (2009) examined the relationship between traditional bullying and cyberbullying. They discovered that there was a link between the two forms of bullying. The study consisted of a sample of 2,070 secondary students with a mean age of 15.9. All participants answered a cyberbullying and empathy scale questionnaire. The data showed that traditional bullies had a tendency to be cyberbullies. Victims of traditional bullying also had a tendency to become victims of cyberbullying (Steffgen & Konig, 2009). “Studies have a shown a positive association between traditional bullying and cyberbullying, and between traditional and cybervictimization; suggesting that cyberbullying may be an extension of traditional bullying” (Wang & Iannotti, 2012).

Kowalski et al. (2012) also conducted a study on the relationship between traditional and cyberbullying. The study included 4,531 secondary students in 6th through 12th grade. All participants completed a survey on their experiences with traditional and cyberbullying, where at least one event occurred within the previous two months. There were a total of 1,711 (37.8%) participants who reported being a victim of traditional bullying and 1,441 (31.8%) admitting to being a perpetrator of traditional bullying. A total of 784 (17.3%) students were victims of
cyberbullying and 495 (10.9%) were perpetrators of cyberbullying (Kowalski et al., 2012).

“That said, practitioners and intervention specialists should be aware of the relationship between traditional bullying and cyberbullying and that the risk of youth being involved in cyberbullying is greater if they are frequently involved in bullying at school” (Kowalski et al., 2012, p. 516).

**Cyberbullying**

The following section in the literature review will be discussing cyberbullying. The historical significance will first be examined followed by types of cyberbullying, current research, and ending with a section on law.

**Historical**

Hinduja and Patchin (2009) defined cyberbullying as “willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices” (p.5). In their view, the act has to be willful and deliberate. The act has to incorporate repeated measures that inflict harm on the victim, not one-time incidents. Of course, electronic devices have to be used as the medium as well because that is the major difference between cyber and traditional bullying. Cyberbullying has a very short history because the commercial Internet that we are familiar with today has only been around for a little over two decades. However, it is not a fair assessment to believe that cyberbullying, as it exists today, is as old as the Internet.

The advancement in technology has allowed more users to gain easier access through cell phones to have that constant connection to cyberspace. Kowalski et al., (2012) credit the increase of cyberbullying with the advancement of technology. The fact that youth and children are keeping pace with the changes in technology much more than adults is a testament to the changing times. “Kids today are experiencing a new type of bullying that has been made possible through technological advances, such as cellular phones and the Internet. In addition,
with the accessibility of free e-mail services, such as Hotmail, Gmail, and Yahoo, a single child who cyberbullies can communicate with a victim using multiple identities” (p. 56).

The opportunities for cyberbullying to take place have definitely increased in recent years because of new innovations that have been introduced to the cyber market. The Internet has evolved in such a way that has allowed communication to become instantaneous. Different ways of communicating have been introduced through the Internet within the last decade that have opened the door for cyberbullying to flourish. Emails, chat rooms, instant messaging, blogs, and social networking sites have all made the possibilities for communication among youth an unending process (Subrahmanyam & Greenfield, 2008).

The advancement of technology has led to easier accessibility through electronic means for millions of youth throughout the United States. One such study, conducted by the Pew Research Center in 2010, reported an overwhelming increase in text messaging among youth who ranged in ages from 12-17. “Some 75% of 12-17 year-olds now own cell phones, up from 45% in 2004. Those phones have become indispensable tools in teen communication patterns. Fully 72% of all teens – or 88% of teen cell phone users – are text-messagers” (Lenhart, Ling, Campbell, & Purcell, 2010, p. 2). Subrahmanyam and Greenfield (2008) reported that Virgin Mobile USA cited that 90% of teens with cell phones had text messaging capabilities and that 67% of those teens used texting daily. Verizon Wireless hosted 17.7 billion text messages from October to December in 2006, which was double the amount from the same time period in 2005 (Subrahmanyam & Greenfield, 2008). McCarthy (2014) reported that 50% of teens send more than 50 texts a day with 33% sending more than 100 texts per day, and 75% of teens belong to at least one social networking site.
Dempsey, Sulkowski, Dempsey, and Storch (2011) posed the question in a recent study about cyber technology and whether or not it has produced a new group of peer aggressors. Archival data was used from four middle schools where a total of 1,672 participants completed surveys during the 2006 school year. Overt, relational, and cyber aggression were all used as measures on the Revised Peer Experiences Questionnaire (RPEQ). The study results indicated that cyber aggression differed from overt and relational aggression (Dempsey et al., 2011). The data also showed that those who reported high rates of peer aggression were also engaged in overt, relational, and cyber aggression. The findings of this study were consistent with other findings in that cyber aggression and traditional forms of aggression are related (Dempsey et al., 2011; Hinduja & Patchin, 2008).

**Types of Cyberbullying**

Cyberstalking is an example of a way a perpetrator can cyberbully another person. Cyberstalking involves the use of electronic devices towards another person (i.e. victim) in a repetitive threatening and harassing manner. The intention of cyberstalking is to place fear in someone through threats of bodily harm or to threaten harm towards the recipient’s friends or family (Kowalski et al., 2012). The social media website, Facebook, is a popular place on the Internet for cyberstalking to take place. There have been countless cases of this type of behavior occurring on the social media website since its inception. One such case involved Christina DesMarais, who began blogging a nutrition and fitness website on Facebook in 2010. DesMarais received threatening emails and posts about her blogs and her lifestyle. "I'm the middle-aged man in the turquoise junker or the teen in the silver Camero or maybe even the woman in the Suburban -- I wouldn't be caught running down my road again if I were you, the anonymous letter said" (Brandon, 2010).
Denigration is the act of posting, emailing, or texting information that is untrue about another person. Some of the most horrifying examples of denigration include: altering photos to make fun of people, creating negative lists on websites about people such as “The Most Unattractive Girl in High School,” and writing humiliating songs about classmates that are posted online (Kowalski et al., 2012). Denigration can also include people creating websites that include cartoons, caricatures, stories, or jokes mocking others (Blumenfeld, 2005). An example of a type of denigration is known as photo shopping, which is named after the photo editing software, Adobe Photoshop. The software allows the user to touch up photos and add effects, but the user can also alter photos in a way to humiliate others (Hinduja & Patchin, 2009). In 2005, a photo surfaced of a girl who was caught in an awkward pose during a mosh dance. The original photo was copied thousands of times and photo shopped in many different pictures to show the original person, “Sam,” in countless humiliating and disgraceful poses. Many of those photos are still available today, almost a decade later, of the same young woman whose innocent act of dancing became a life-altering event for millions to laugh at online (Hinduja & Patchin, 2009).

Online exclusion or cyber-ostracism is the act of refusing to let someone join a group or conversation online. It is the act of being unfriended on Facebook. Cyber-ostracism is being blocked on instant messenger or from someone’s phone where the ability to text them is cut off completely. Kowalski et al. (2012) spoke of how children have the perception of whether or not they are a part of the “in-group” in both the offline and online world. If one perceives that they are not a part of the in-group then the assumption would be that they would think of themselves as members of the out-group. Exclusion through social networking sites such as Facebook and Twitter are among the most common forms of cyber-ostracism (Alvarez, 2012).
Flaming is a short, heated exchange between two or more people that can occur through the use of any technological device. Flaming usually occurs in chat rooms or on social media websites where there is an audience. It does not include one on one private emails or text messages (Kowalski et al., 2012; Marcum, Higgins, Freiburger, & Ricketts, 2012). Again, flaming can be seen and witnessed on Facebook and Twitter in many instances. Flaming is popular among high school students because it can be an easy way to get the upper hand with another classmate or group. It can and many times does involve angry and vulgar language. A person acts out in a flaming manner to inflame the emotions of others. “These comments or messages do not productively advance or contribute to the discussion at hand but instead attempt to wound another person socially or psychologically and to assert authority over others” (Hinduja & Patchin, 2009, pp. 36-37).

Happy slapping is a technique that interweaves traditional bullying with cyberbullying. An unsuspecting victim is attacked in some fashion (e.g. slap, punch, push) while it is being recorded by another individual who then posts the video or the picture online for all to see. This type of behavior can be deemed as criminal in some instances because the victim is seriously injured or killed (Kowalski et al., 2012). The irony of this type of cyberbullying is that the video used to make fun of someone can be used as evidence to convict the very ones that committed the act. According to Hinduja and Patchin (2009), happy slapping has become more common with teenagers because of the popularity and ease of use of such websites as Flickr, [Instagram], and YouTube, which allow users to share photos and videos on the Internet free of charge. The cell phone is the most used device to record a happy slapping attack on another person. Most cell phones today have photo and recording capability, which makes these types of cyberbullying attacks easier for the perpetrators (Gorzig & Frumkin, 2013).
Harassment involves repetitive offensive, rude, and insulting messages that are sent through electronic means to a particular target. Harassment can occur in public forums such as Facebook and chat rooms, but it mostly occurs towards an individual target through emails and text messaging. Harassment differs from flaming in two ways: (a) it occurs over a longer span of time, and (b) it is more one-sided with at least one or more perpetrators targeting a single victim. An example of harassment is when perpetrators send hundreds of text messages to a target “blowing up” their phone and potentially leaving them with a hefty phone bill (Kowalski et al., 2012). Cyber harassment can also involve an individual retaliating against another individual because of a perceived wrong. This type of harassment would be an intentional and overt act of aggression (Ybarra & Mitchell, 2004). There is also harassment used in online video games called griefing. A griefer is someone who intentionally harasses another online player in a multiplayer online game. The griefer is not concerned with winning; he just wants to inflict terror on other players, as in this example from the online social simulation, Second Life. “Generally, they intentionally bump, push, stalk or harass others. Sometimes, they inundate others with objects. Or they use an orbiter to throw a resident so far upward the resident cannot get back down in a reasonable timeframe without teleporting” (Curtis, 2008, p.1).

Impersonation involves an individual posing as the victim through email, text messaging, instant messaging, or a social media page. This type of cyberbullying occurs many times from a password being stolen so that access can be gained to the victim’s account. Impersonation can also involve someone scrolling through another person’s cell phone and sending text messages to contacts using cruel and demeaning language to cause trouble (Kowalski et al., 2012). Hinduja (2009) wrote about a new technique that was becoming popular called “phishing.” Phishing involves an individual creating a link that someone would go to from within their social media
page that would convince them to give personal information about themselves. The perpetrator could then use that information to create a fictitious account on Facebook or Twitter to humiliate and torture the victim. “The criminal usage of these links can be characterized as social engineering, which often involves some amount of emotional pressure to lead an individual to make a quick online decision based on invalid or unvalidated information” (Hinduja, 2009). The perpetrator tries to put pressure on the victim by saying that information or Internet access will be lost if the information is not “updated.”

Outing and trickery are forms of cyberbullying where the perpetrator has personal information on the victim or tricks the victim into giving private information. The information is then shared online or through text messages, without permission, to humiliate the victim (Kowalski et al., 2012). Outing and trickery has caused many problems for victims because of the backlash from the personal information being posted online. The information gained by the online community (e.g. classmates) can then be passed on and forwarded to the whole school in a very short amount of time (Willard, 2007). A form of outing that has become popular recently is known as “swatting.” Swatting occurs when a perpetrator finds out the personal information of a victim (e.g. phone number or street address). The perpetrator then uses spoofing technology (e.g. Burner) to make it appear as though they are calling from the victim’s home. The phone call to 911 is of a serious nature, usually involving a hostage scenario, which alarms the police to respond in force. Most swatting occurs in online gaming communities because the perpetrators and many others can maintain anonymity and actually witness the swatting take place via webcams and other technology. “Sometimes swatting is done for revenge, sometimes as a prank. Either way, it is a serious crime, and one that has potentially dangerous consequences” (“The Crime of Swatting,” 2013, para. 2).
“Sexting refers to the sending or posting of nude or semi-nude pictures or videos via text messages or other electronic devices” (Kowalski et al., 2012, p. 68). Hinduja and Patchin (2010), defined sexting as, “the sending or receiving of sexually explicit or sexually suggestive images or video via a cell phone” (p. 1). The seriousness of this type of cyberbullying is paramount in the fact that criminal charges can be brought on anyone that has the photo or video. Sexting may begin many times between couples and be considered innocent, but one partner becomes upset with the other and sends the private material to peers in an act of defiance or revenge. Child pornography charges have been brought against individuals in some cases because of the age of those involved. “Additional consequences include school suspension for perpetrators and emotional distress with accompanying mental health conditions for victims” (O’Keeffe & Clarke-Pearson, 2011, p. 802). The amount of youth involved in sexting is unclear, however; studies in recent years show that between 4% and 19% of teens have admitted to sending these types of messages, while 13% to 31% of teens have admitted to receiving them (Hinduja & Patchin, 2010). There have also been cases of suicide occurring over the effects of sexting because the insults, name calling, and constant from peers have been too much to handle for the victims (Hinduja & Patchin, 2010).

“Slut-shaming is the act of attacking a female for being sexual. The purpose of slut-shaming is to make a female feel inferior for acting in ways that do not conform with traditional gender expectations, such as acting on sexual feelings or wearing revealing clothing” (Poole, 2013, p. 231). The act of slut-shaming was around long before the invention of the Internet, however; it has gotten much worse because of the advancement of technology. Texts and photos can be sent with ease via cell phones, instant messaging, and emails. Posts can also be uploaded on social media websites such as Facebook and Twitter. The anonymity of the Internet provides
protection to cyberbullies and gives them a sense of courage to attack their victims because of their concealed identity (Poole, 2013). The issue with photos and videos is that fact that they may never go away. One website can take down a photo but it can easily be added to another website. Even if social media takes down certain posts, pictures, and videos, they can all be passed around among students’ cell phones and email accounts. “Advertised as applications for pranksters, professionals, and people doing business online, apps like Spoof Card, Hushed, and Burner allow users to disguise themselves and send texts or make phone calls anonymously” (Messitt, 2014, p.54). Unfortunately, technology has been created to make lives easier but it has also enabled perpetrators of cyberbullying to advance on their victims like never before.

**Current Research**

Cyberbullying is a relatively new research topic that has increased in recent years due to the advancement of technology. Smart phones, iPads, and Android devices have all made it much easier for communication to take place between individuals. They have also provided an easy means of accessing the Internet from virtually anywhere. Just a few short years ago, it was impossible to access the Internet by any means other than a computer connected to a phone line.

One of the first studies conducted in the United States on Internet harassment and its characteristics took place between September of 1999 and February of 2000. YISS, young regular Internet users, was a nationally representative telephone survey of youth who used the Internet at least once a month for three consecutive months (Ybarra & Mitchell, 2004). The respondents were between the ages of 10 and 17 with a mean age of 14.1. The youth in this study were asked if they had engaged in one of the two online harassment behaviors within the past year that dealt with either making a nasty comment to someone online or using the Internet as a platform to harass someone else with whom they were upset (Ybarra & Mitchell, 2004).
There were a total of 15% ($n = 219$) individuals identified as Internet harassers based on the survey of 1,498 respondents. There were 19.6% ($n = 43$) reporting that they were the victim of online harassment. Although there were several limitations to this study, it was the first to inquire about the characteristics of youth who were involved in online harassment (Ybarra & Mitchell, 2004).

One defining issue that has hindered researchers in the field of cyberbullying has dealt with its definition. Various definitions and perspectives of cyberbullying and what it is have led to different kinds of operationalizations (Vandebosch & Van Clemput, 2008). Vandebosch and Van Clemput (2008) conducted a qualitative research study with 53 focus groups containing 279 school aged children between the ages of 10 and 18. The primary focus of the study was to examine the experiences and the views of the participants with regard to cyberbullying. There were 142 (50.9%) boys and 137 (49.1%) girls from 10 different schools represented in the study. A total of 98.6% of the respondents were on the Internet regularly and 90.3% had a cell phone (Vandebosch & Van Clemput, 2008). The data gathered from the respondents helped to identify a more precise definition of cyberbullying, which included an intention to hurt by the perpetrator, repetitive patterns of negative behavior on the Internet, and a power imbalance (Vandebosch & Van Clemput, 2008).

Hinduja and Patchin (2006) first defined cyberbullying as willful and repeated harm through an electronic text, but updated the definition (2009) to include the use of computers, cell phones, and other electronic devices. “There is no shortage of potential offenders or victims of cyberbullying because of the widespread availability of computers and the Internet in the developed world” (Hinduja & Patchin, 2008, p. 132). An exploratory study was conducted by Hinduja and Patchin from December 22, 2004 through January 22, 2005. Data were collected
from 6,800 respondents on their experiences with cyberbullying from the perspectives of a victim, perpetrator, and witness. The target population was gathered by using websites that served the same population of youth. However, approximately 43% \((n = 2,978)\) were older than 17 and were discarded from the study. The final sample included 1,378 youth made up of 680 males and 698 females to limit partialities. The overall goal of the study was to determine the factors related to cyberbullying. Logistic regression was used because it was considered “the ideal technique for attempting to identify a profile of cyber-bullying because it estimates the odds of being a victim or offender based on the independent variables being considered” (Hinduja & Patchin, 2008, p. 141). The data gathered in the study revealed some interesting findings. There was no statistical significant difference between male or females and their susceptibility with cyberbullying victimization or perpetration. There were also no statistical significant differences in victimization or perpetration with regards to race and gender. The more proficient respondents were on the computer and the more time spent on the Internet also led to more experiences of cyberbullying.

“Children exposed to cyberbullying, whether as a cyberbully, cybervictim, or both (bully/victim), spent more time on computer-based social activities” (Twyman, Saylor, Taylor, & Comeaux, 2010, p. 195). Cyberbullying can become a more serious issue when compared to traditional bullying because it can occur at any time, messages can spread in a quick and vast manner, and the ability of the perpetrator to remain anonymous (Twyman et al., 2010). A total of 104 participants were involved in the Twyman study. There were 52 students who reported exposure to cyberbullying while another 52 participants were matched to the former group from not being exposed based on age, race, and gender. The goal of the study was to expand the literature on cyberbullying characteristics and their relationship to the participant’s social
awareness with the protective factors of family and the risk factors of online activity (Twyman et al., 2010). Both perpetrators and victims were more likely to spend at least four hours a week engaged online using chatrooms, emailing, and instant messaging. The same groups were also more likely to have their own personal webpage (e.g. MySpace) and have an email account that was not accessible to their parents. The findings of this study support earlier research on traditional bullying overlapping with cyberbullying (Twyman et al., 2010).

Werner, Bumpus, and Rock (2010) examined concurrent and longitudinal data over a two-year period among youth and their involvement in Internet aggression. The two goals of the study were to reveal predictors of Internet aggression and to investigate those youth who were identified as aggressors on-line and off-line as compared to those who were only off-line aggressors. Internet aggression and Internet victimization were assessed using four identical items, with the participant targeting aggression on the former and being the target of aggression on the latter. “Consistent with prior investigations, we found that regular users of Computer-Mediated-Communication (CMC) applications such as IM, email, and social networking sites engaged in higher levels of online aggression” (p. 615). Another interesting finding was the fact that those youth who reported being victims of cyberbullying were 16 times more likely to engage in Internet aggression than their non-victimized peers. The data also revealed that youth involved in traditional bullying were more likely to report involvement in cyberbullying as well. “Internet offers a tool for already aggressive youth to aggress against disliked peers in perhaps more damaging ways and with increased anonymity than is permitted in traditional contexts” (p. 616).

Social media sites such as Facebook, Twitter, Instagram, and MySpace have been used as a platform and breeding ground by perpetrators of cyberbullying. There have been several
studies conducted recently on social media and how it has played an influence in cyberbullying (Gorzig & Frumkin, 2013; Kwan & Skoric, 2013; Marcum, Higgins, Freiburger, & Ricketts, 2014; Sengupta & Chaudhuri, 2011). Kwan and Skoric (2013) conducted a study that examined the use of Facebook by a convenience sample of 1,676 secondary students between the ages of 13 and 17. Each of the participants answered a questionnaire on Facebook intensity use that was adapted from two earlier studies on perpetration and victimization of cyberbullying. The prevalence of Facebook bullying was 59.4% \((n = 1,493)\) while 56.9% \((n = 1,491)\) of the respondents admitted to engaging in at least one form of Facebook bullying. “Intensity of Facebook use was positively related to Facebook victimization and school victimization was also found to be positively related to Facebook victimization” (p. 22). The researchers also hypothesized that there would be a positive relationship between engagement of Facebook bullying and victimization on Facebook due to the online disinhibition effect and victims feeling an empowerment to retaliate through the social media platform. The results of this study showed a positive correlation \((p < .001)\) between engagement of Facebook bullying and victimization on Facebook.

Marcum et al. (2014) examined the victim/offender relationship in cyberbullying and also compared the experiences of males and females. The study was made up of 1,139 college students with a mean age of 21. The crux of the study examined Facebook usage and cyberbullying with parent attachment, school commitment, low self-control, social network hours, social network friends, and gossip serving as the independent variables. Two predictive factors were shared by both males and females. Both sexes were more likely to cyberbully on Facebook who exhibited lower levels of self-control and both male and female participants were more likely to cyberbully via Facebook if they were also victims of cyberbullying. The results of
the study indicated that females were more likely to participate in cyberbullying on Facebook than their male counterparts, however; the difference was very slight with only a difference of one percentage point.

Predicting perpetration of cyberbullying has also been examined in recent studies both domestically and abroad (Ang, Huan, & Florell, 2013; Doane, Pearson, & Kelley, 2014; Modecki, Barber, & Vernon, 2013; Roberto, Eden, Savage, Ramos-Salazar, & Deiss, 2014). Cyberbullying can easily take place because of the simplistic manner in which technology allows the user quick access to the victim. It is easy to send a hurtful text about another person to a large group, therefore; the act of perpetration in cyberbullying takes very little effort.

“Specifically, in the United States, 98% of young adults use the Internet, 97% of young adults use their cell phone for texting, and cyberbullying can be perpetrated anonymously” (Doane et al., 2014). Unfortunately, with the creation of texting apps, users can hide their phone numbers or create fake numbers to conceal their identities from their victims.

Roberto et al. (2014) conducted a study on the prevalence and predictors of cyberbullying perpetration of high school seniors. The participants were all incoming freshmen who completed a survey that measured verbal aggression, risky behavior, Internet activities, technology use, parental monitoring, sex, and cyberbullying victimization. The aforementioned measurements were all hypothesized as predictors of cyberbullying perpetration. The descriptive analyses showed that 35% of all participants reported cyberbullying perpetration with 34.8% of males and 34.85% of females respectively. A mean of 2.26 instances of cyberbullying during the participants’ senior year of high school was reported. Types of technology used to cyberbully others included cell phones (76.9%), Internet (54.6%), instant messaging (41.7%), email (22.0%), and other (20.6%). The three hypotheses that were supported from the data were trait
verbal aggression, risky behaviors, and cyberbully victimization. “Though trait verbal aggression and engaging in risky behaviors were found to moderately impact how likely individuals were to cyberbully, results indicated that when individuals were cyber victims, they were then highly likely to also perpetrate cyberbullying” (pp. 106-107).

There have been several studies also dedicated to cyberbullying and gender (Ang & Goh, 2010; Hinduja & Patchin, 2008; Marcum et al., 2012; Connell, Schell-Busey, Pearce, & Negro, 2014; Snell & Englander, 2010). The studies have varied in results, but a common theme that has reoccurred is that females are more likely than males to be involved in cyberbullying as both perpetrators and victims. Snell and Englander (2010) conducted a study that involved 213 college students with 156 (73%) females and 57 (27%) males. The participants completed an online survey made up of 218 questions dealing with bullying and cyberbullying victimization. The results showed online stalking and mean rumors as the most common occurrences. Females experienced more harassment, lies, and fake profiles then did their male counterparts. The data also showed that females spent more time with their friends online and texting than males. “The situations that are occurring seem to be involving friends or ex-friends involved in relational or indirect aggression (rumors, blackmail and destroyed friendships.) These behaviors are typical of females and their indirect bullying styles” (p. 513).

Marcum et al. (2012) conducted their study on the differences in cyberbullying experiences between males and females. A total of 1,139 students participated in the research study that involved answering a survey that dealt with numerous variables including parental attachment, school commitment, low self-control, Twitter hours, Twitter friends, social network hours, social network friends, emailing hours, and emailing friends. Descriptive statistics and logistic regression of using gossip to hurt others were used to analyze the data. The findings of
the research showed that females were more likely to post gossip online about others just to hurt them. Females were actually 2.53 times more likely than males to post gossip online. “Females prefer participating in behavior that is not physically confrontational, and by hiding behind the protection of a computer, they can be more brazen with their behavior” (Marcum et al., 2012, p. 909).

Connell et al. (2014) has conducted the most extensive study on gender and their differences in cyberbullying behaviors to date. Data were collected statewide over a six-year period (2006-2011) in students in the 5th through 8th grades. There were a total of 4,372 participants that completed surveys during this time (Connell et al., 2014). The variables examined in the study were bullying and victimization, cyberbullying and victimization, direct bullying and victimization, and relational bullying and victimization. The data showed that 16% of girls in the study admitted to engaging in cyberbullying compared with only 10.5% of boys. Females also reported higher levels of cybervictimization, which totaled 30.1%, compared to male respondents that totaled 17.9%. The study also revealed that girls and boys who were cybervictimized were more likely to engage in cyberbullying. The findings of the study did show that cyberbullying and cybervictimization were more prevalent in females than in males. Interestingly, cybervictims also became cyberbullies and vice versa. “Cyberbullies and cybervictims seem to swap roles and retaliate against one another through technological means. Perhaps the access to technology makes it easier for victims to turn into bullies and bullies to be turned to victims” (p. 223).

Law

The Internet has many benefits including the ability to research libraries world-wide, up-to-the minute news reports with the click of a button, and social networking sites that allow
people to stay in touch with friends and relatives. However, there are also many dangers that accompany the Internet that include identity theft, software hacking, and cyberbullying. Cyberbullying law has been a very touchy subject with regards to First Amendment rights granted by the United States Constitution. Many of these laws have had really good intentions, but have unfortunately restricted the freedom of speech based on judicial interpretation. “While the problem of cyberbullying urgently requires a solution, policymakers should avoid the temptation to enact knee-jerk legislation that may be over broad or create unintended consequences that restrict the freedom of expression” (King, 2010, p. 848). As of this writing, there are a total of 49 states, with only the exclusion of Montana that have enacted bullying laws. The wording of these particular state laws differ in vocabulary whereas 48 states have used the phrase “electronic harassment,” while 20 states have actually included the term cyberbullying (Hinduja & Patchin, 2014).

McCarthy (2014) cited that New Jersey has some of the strictest anti-bullying laws, which were passed in 2011. The New Jersey statute prohibits intimidation, harassment, traditional bullying, and cyberbullying that impedes on the rights of individuals or that disrupts the school day. The law also mandates that administrators address off campus bullying as well. Each school has a staff member who oversees bullying and must investigate any complaint within a 10-day period. All schools also receive a grade as to how bullying complaints are being handled and processed. School administrators can be punished if they do not comply with the law (McCarthy, 2014). The state of New York requires that all students receive instruction in citizenship, civility, and character education. The state of North Carolina, in 2012, extended all of their anti-bullying laws to protect the classroom teacher. It is now a crime for students to harass, intimidate, or cyberbully teachers on the Internet (McCarthy, 2014).
The First Amendment of the United States Constitution guarantees the freedom of religion, the freedom of speech and press, the right to peaceably assemble, and the right to petition the government (Hall, 1992). Although the United States Constitution provides these freedoms in the Bill of Rights, they are not absolute. Electronic expression is a freedom that has limitations and those rights are suspended when they impede another’s freedoms. “If such expression is considered a true threat or fighting words, obscene, or defamatory, school authorities can curtail it without fearing that they are trampling on students’ First Amendment rights” (McCarthy, 2014, p.815). Therefore, threats, obscene language or material, and defamatory comments about another individual or group are not protected under the arm of the First Amendment. The following cases are those that the Supreme Court of the United States and District Courts have dealt with in recent years concerning online harassment with regards to threats, defamation, and obscenities.

One of the first cases dealing with online harassment was Zeran v. America Online, Inc., 1997 (Vile, Hudson, & Schultz, 2009). The case involved the plaintiff, Kenneth Zeran, who was receiving death threats due to an anonymous post that was uploaded to an AOL message board. The post was a fictitious ad offering the sale of t-shirts which had derogatory comments about the recent Oklahoma City bombing. The phone number of the plaintiff and his name was listed at the end of the posting, which led to many threatening calls against himself and his family (Sheridan, 1997). The plaintiff decided to sue AOL for negligence because they were the distributor of the defamatory comments via their message board. The court decided in favor of AOL due to the enactment of the Communications Decency Act (CDA) that had been passed in 1996 (Sheridan, 1997). The CDA, particularly section 230, was passed by Congress, which gave full immunity to Internet service providers (ISP) such as AOL on the basis that they were
distributors of material and not the original publishers. The main objective of the CDA was “to prevent obscenity on the Internet while promoting constitutionally protected forms of speech” (King, 2010, p. 853). The Zeran decision provided full immunity to all present and future service providers (e.g. Facebook, Twitter, etc.) from civil law suits as distributors and publishers of online speech. “Consequently, even if a cyberbullying victim notifies an ISP about defamatory material available through its service, the ISP would be under no legal obligation to restrict access to the material, allowing it to remain on the Internet indefinitely” (King, 2010, p. 854).

Nonetheless, cyberbullying incidents do involve threats and defamatory comments made towards individuals that are not anonymous. One such example dealt with the case of J.S. v. Bethlehem Area School District, 2000 (McClintock, 2001). A student, known as J.S., was expelled from school because he created a website from his home computer degrading his teacher and giving a list of reasons as to why she should be fired (Steward & Fritsch, 2011). The student went a step further and requested money be given in order to hire a hit man to murder the teacher. The teacher was unable to continue in her job for the remainder of the year after the news of the website became public knowledge due to psychological and physical problems she experienced. The Tinker rule was applied and the court upheld the school’s decision to expel based on the disruption that was caused because of the website (Steward & Fritsch, 2011). “In essence, the court communicated to schools that Web sites that are accessible at schools and whose intended audience is the school population can be dealt with similarly to on-campus speech” (Steward & Fritsch, 2011, p. 82).

However, courts have also interpreted similar instances involving online harassment in a different manner and overturned school expulsions. Emmet v. Kent School District No. 415,
2000, involved a student who was expelled by the school for posting fake obituaries of students along with a list of students who would die next (Verga, 2007). The student included a disclaimer at the bottom of the website that it was created for entertainment purposes only (Steward & Fritsch, 2011). The U.S. District Court of Washington decided that the school exceeded its authority and they never convinced the court that anyone was threatened by the web page or that a substantial disruption occurred due to its creation. The expulsion was overturned by the court. Hinduja and Patchin (2009) believe intervention and discipline can take place with regards to cyberbullying when learning is disrupted, the educational process is interfered with, school-owned technology is used, and when the civil rights of students are threatened.

Rosario v. Clark County School District (2013) was a court case that dealt with a high school basketball player and the obscene tweets he posted to Twitter after his last game his senior year. The tweets posted were racially and sexually offensive towards the player’s coaches and other school officials. The school suspended the student for cyberbullying and then placed him in another high school to finish his senior year. The court upheld that the offensive sexual tweet was of an obscene manner and was not protected by the student’s First Amendment right (Rosario v. Clark County School District, 2013). The student then pursued another case against the school district claiming that his Fourth Amendment right had been violated when school officials searched his Twitter account. The court ruled in favor of the school proclaiming that there is not a reasonable expectation of privacy in Twitter tweets. “A tweet from a user with public privacy settings is just a twenty-first century equivalent of an attempt to publish an opinion piece in the New York Times. When a person with a public privacy setting tweets, he intends that anyone that wants to read the tweet may do so, so there can be no reasonable expectation of privacy” (Rosario v. Clark County School District, 2013, p.8).
HEXACO Personality Traits

The Big 5 model of personality structure has been the most commonly used personality model by psychologists for nearly two decades. “The many hundreds of personality characteristics that make one person different from the next – traits from absent-minded to zestful, and everything in between – could be classified into five large factors” (Lee & Ashton, 2012, p. 6). The Big 5 model has been the predominant personality factor that has appeared across gender and cultures worldwide (Barlett & Anderson, 2012). The traits include Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (Pytlik Zillig, Hemenover, & Dienstbier, 2002). Each of the five factors has their own set of correlated traits that help to define whether or not an individual is placed on the high end or low end of the scale (Tani et al., 2003).

Openness is characterized by individuals who are intellectually curious and attentive to their inner feelings on the high end, while the low end of openness defines individuals who are less emotional and conventional. Conscientiousness describes those who are determined and strong willed versus those who are less driven by moral principles and more interested in pleasure. Extraverts are assertive and talkative while their counterparts are more independent and reserved. Individuals who are more sympathetic towards others are rated high on the agreeableness scale versus those who score low and tend to be inclined to protect their own interests. Neuroticism deals with negative emotions, and a person scoring high on this scale would be maladjusted versus someone who scored low, tending to be more emotionally stable (Tani et al., 2003).

Unlike the Big 5, which incorporates five factors of personality, the HEXACO personality model is “consistent with the cross-culturally replicated finding of a common six-
dimensional structure” (Ashton & Lee, 2007, p. 150). HEXACO is an acronym reflecting both the number of factors (i.e. six) and their names. The six factors are: Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O) (Ashton & Lee, 2007).

The HEXACO model has factors that are very similar to three of the Big 5 factors through lexical studies of personality structures, which are Extraversion, Conscientiousness, and Intellect/Imagination/Unconventionality (Ashton & Lee, 2007). The other two factors, Emotionality and Agreeableness are different in some respects to the Big 5 factors of the same category. The sixth dimension, which is not one of the Big 5, is the Honesty-Humility factor (Ashton & Lee, 2007).

Honesty-Humility is a factor of the HEXACO personality structure where high scores reflect those individuals who want to avoid manipulating others, are not tempted to break the rules, are uninterested in bountiful amounts of wealth, and do not consider themselves as superior. On the contrary, those individuals who score low on the H factor will flatter others to get what they want, will break rules for personal gain, are materialistic, and have a sense of entitlement (Lee & Ashton, 2012). The personality traits of a high H person are honesty, faithfulness, ethical, loyal, and modest. Low H individuals can be described as sly, greedy, boastful, hypocritical, and conceited (Lee & Ashton, 2012).

A high score for the Emotionality factor of personality depict individuals who are more prone to be fearful of physical dangers, worry about minor problems, like to share their concerns with others, and are empathetic towards others. On the other hand, those individuals with a low E factor are not deterred by physical danger, have low anxiety, do not need emotional support from others, and are emotionally detached from others (Lee & Ashton, 2012). The personality
traits describing those individuals in a high E scale are emotional, sentimental, fearful, and nervous. Those individuals who exhibit low E traits are tough, fearless, independent, and insensitive (Lee & Ashton, 2012).

The factor known as Extraversion displays high scoring individuals who are confident leaders, enjoy social interactions, have positive experiences with social interactions, and see positive qualities about themselves. Those who are identified as low X individuals are uncomfortable with attention, view themselves as unpopular, prefer to be alone, and feel less optimistic than others (Lee & Ashton, 2012). Personality traits that describe high X individuals are outgoing, lively, sociable, and confident. Low X individuals are portrayed as shy, quiet, introverted, and gloomy (Lee & Ashton, 2012).

The Agreeableness factor depicts individuals who are not resentful, are lenient in the judgment of others, are accommodating and can easily control their temper. However, the low A individuals find it hard to forgive, are critical of others, are very stubborn when defending their point of view, and feel anger readily when provoked (Lee & Ashton, 2012). Traits that help describe high A individuals are patient, peaceful, gentle, and forgiving. Ill-tempered, stubborn, headstrong, and blunt are personality traits that describe low A individuals (Lee & Ashton, 2012).

Individuals who score very high on the Conscientiousness scale are very orderly with time, work hard to achieve goals, pursue perfection, and are very careful with their decision-making. Low C individuals are disorganized with their time, try to avoid challenges, do not mind incompleteness, and are impulsive with their actions (Lee & Ashton, 2012). Organized, efficient, careful, and precise are personality traits that describe high C individuals. Low C individuals are sloppy, reckless, absent-minded, and lazy (Lee & Ashton, 2012).
The final dimension of the HEXACO personality structure is Openness to Experience. Individuals who score high on the O scale are intellectually curious, use their imaginations often, like to hear unusual opinions, and appreciate the beauty in nature. Low O individuals are not receptive to unconventional ideas, uninterested in nature, indifferent to artistic pursuits, and avoid creative activities (Lee & Ashton, 2012). High O individuals can be described as intellectual, innovative, complex, and inquisitive. Conversely, low O individuals are simple, unimaginative, shallow, and closed-minded (Lee & Ashton, 2012).

**Personality Studies**

To date, there have not been many studies conducted on personality traits and cyberbullying (Ang et al., 2011; Festl & Quandt, 2013). However, there has been a larger focus on studies dealing with traditional bullying and personality traits in both adults (Baughman, Dearing, Giammarco, & Vernon, 2012; Persson et al., 2009) and adolescents (Bolle & Tackett, 2013; Book et al., 2012; Kodzapeljic, Smederevac, Mitrovic, Dinic, & Colovic, 2014; Tani et al., 2003). Research studies have also been conducted on comparing and contrasting traditional bullying with cyberbullying (Casas et al., 2013; Dooley et al., 2009; Juvonen & Gross, 2008; Kowalski et al., 2012; Schneider et al., 2012; Steffgen & Konig, 2009; Wang et al., 2009; Wang et al., 2011). The focus of this section will be to explore some research studies on personality traits and bullying, both traditional and cyber.

Currently, there have been no published research studies that have used the HEXACO PI-R to predict cyberbullying. To date, the only research study that has used the HEXACO PI-R with traditional bullying was conducted in 2011. Book et al. (2012) examined personality and bullying from an adaptive approach. There were 310 participants in the study with a mean age of 13.6. Each participant completed a self-reported five-item questionnaire on bullying. The
questionnaire that the participants took asked them about their bullying behavior during the last school term. The participants also completed the 100-question HEXACO PI-R and a survey on aggression. The reliability coefficients for the HEXACO PI-R were $\alpha = .73 - .78$ and were $\alpha = .89$ for instrumental aggression and $\alpha = .92$ for reactive aggression (Book et al., 2012).

There was a significant negative correlation found in traditional bullying with Honesty-Humility, Emotionality, Agreeableness, and Conscientiousness traits. There was a significant positive correlation of bullying for both reactive and instrumental aggression. The researchers found that the Honesty-Humility trait was the most critical multivariate predictor of traditional bullying (Book et al., 2012). “The researchers also emphasized the unique advantage of using the HEXACO as opposed to the Big Five model, as Honesty-Humility predicted bullying above and beyond Agreeableness” (Book et al., 2012, p. 221).

Ang et al. (2011) conducted a study on the normative beliefs about aggression as a mediator between cyberbullying and narcissistic exploitativeness. There were 366 participants with a mean age of 14.29 from Singapore and 374 participants with a mean age of 14.86 from Malaysia. The measures involved in the study were the Narcissistic Personality Questionnaire for Children – Revised, Normative Beliefs About Aggression Scale, and a Cyberbullying Questionnaire. All three measures were self-reports. The results of this study showed that narcissistic exploitativeness was significantly correlated with both normative beliefs about cyberbullying (Singapore: $r = .23, p< .01$; Malaysia: $r = .25, p< .01$) and aggression (Singapore: $r = .21, p<.01$; Malaysia: $r = .14, p<.01$) in both participant groups (Ang et al., 2011).

Werner et al. (2010) discovered that juveniles were three times as likely to be Internet aggressors if they held positive views about relational aggression. “As disinhibition in computer-mediated communication is governed by norms, then one way of reducing the
incidence of disinhibited online behavior is to attempt to change those norms. Netiquette should encompass changing beliefs about the acceptability of cyberbullying.” (Ang et al., 2011, p. 2630). The narcissistic trait is associated with the behavior in cyberbullying, however; those aggression beliefs could be adjusted through proper intervention (Ang et al., 2011).

Festl and Quandt (2013) examined cyberbullying and the influence of individual and structural attributes on victims and perpetrators. The authors believe that cyberbullying is not just an individual problem, because perpetrators and victims alike are a part of a much larger social structure. “Perpetrators randomly harassing people they do not know is uncommon, as their action is aimed at a social result, such as strengthening one’s own social position or marginalizing opponents in a given group” (Festl & Quandt, 2013, p. 103). The research study involved 408 participants between the ages of 12 and 19. The mean age of the group of participants was 15.4. There were two schools involved in the study with a total of 21 classes participating that had an average class size of 24. The Big 5 short scale of personality traits were analyzed along with sociodemographic factors. A shared personality trait of victims was conscientiousness and they also had the highest degree of openness (Festl & Quandt, 2013). Students who were both perpetrators and victims of cyberbullying were significantly higher extraverts than those students who had not experienced cyberbullying. The agreeableness trait was also significantly higher ($p < .01$) in those students who were both perpetrators and victims ($M = -0.035$) as compared to sole perpetrators ($M = 0.017$) of cyberbullying (Festl & Quandt, 2013). The study also presented findings that females were more likely than males to become targets of aggressive behavior and that cyberbullies spent more time on the Internet, especially social network sites, than non-bullies (Festl & Quandt, 2013).

Tani et al. (2003) conducted a study examining personality, using the Five Factor Model,
and participant roles in bullying incidents. There were 134 boys and 98 girls from age eight to ten in the study. The two measurement tools used were the 21-item Participant Role Scale (PRS) and the 65-item Big Five Questionnaire for Children. The PRS was given to identify the various roles participants might have played during bullying incidents. The Cronbach alpha ranged from 0.79 – 0.87. The Big Five questionnaire helped identify certain personality traits of the participants. The Big Five Cronbach alpha of this study ranged from 0.64 – .087, while the intercorrelations ranged from .049 – .084 (Tani et al., 2003).

A MANOVA was generated to measure the differences among the participants’ personalities who were a part of one of the four role groups. The role groups consisted of Pro-Bully, Defender of the Victim, Outsider, and Victim (Tani et al., 2003). The data revealed that Pro-bullies scored lower than defenders in agreeableness. However, Pro-bullies scored higher than outsiders on extraversion, which suggests that bullies or those that help bullies are more likely than those who are not, more outgoing in social gatherings (Tani et al., 2003). Defenders of the Victim scored higher than the other three groups on agreeableness, but scored lower than Pro-bullies and Victims on neuroticism. There was also no significant difference between Defenders of the Victim and the other role groups in the conscientiousness dimension (Tani et al., 2003).

“Outsiders scored lower than Pro-bullies and Defenders on extraversion, lower than Defenders of Friendliness on agreeableness, higher than Victims on conscientiousness, and lower than Victims on neuroticism” (Tani et al., 2003, p. 142). Victims scored lower than Defenders and Outsiders on agreeableness and conscientiousness, but higher on neuroticism. The authors concluded that Victims are more likely to protect their own interest when compared to other participants in the role group (Tani et al., 2003).
Bolle and Tackett’s (2013) study consisted of a student sample of 660. The mean age of the participants was 10.98 years old. This study examined the four group classification of bullying, which involves bullies, victims, bully/victims and uninvolved children within the Big Five framework, while controlling for gender (Bolle & Tackett, 2013). The personality profiles of this study were translated into normative scores, which provided a measure of identifying those participants who were at risk of being victims of bullying.

The mothers of the participants actually described their own children’s personality via the Hierarchical Personality Inventory for Children (HiPIC). This measure included 144 items separated into 18 groups, which were then organized under the Big Five umbrella. Bullying was identified by two questions that asked the mother, teacher, and the student if the participants had either been a bully before or been bullied. The scores that were given to the answers of the two questions ranged from 0 (no bullying reported), 1 (existence of bullying sometimes) and 2 (frequent bullying/almost every day). The two questions on bullying dealt with the current calendar year (Bolle & Tackett, 2013).

There were 27% \( (n = 178) \) identified as uninvolved children, 6.8% \( (n = 45) \) pure bullies, 10.2% \( (n = 67) \) pure victims, and 3.5% \( (n = 23) \) classified as pure bully/victims (Bolle & Tackett, 2013). The results of the study also showed that victimization and bullying were significantly negatively correlated with conscientiousness and agreeableness. Victimization was also significantly negatively correlated with neuroticism (Bolle & Tackett, 2013). This study’s findings provided, through person-centered personality assessment, an important tool in identifying those children who were more susceptible to bullying and victimization as opposed to those children who were more prone to be protected from bullying. The authors also stated that the techniques used in their study could help supplement other approaches currently that help
identify children who are at risk for bullying and victimization. “More specifically, this study clearly demonstrates that children who are involved in bully problems, either as a victim or as a bully have distinctive personality profiles” (Bolle & Tackett, 2013, p. 287).

There have also been some studies conducted on adults with regards to bullying in the workplace and personality traits. Persson et al. (2009) surveyed 247 adult employees from two separate worksites. The measures used in this study were the General Nordic Questionnaire for Psychological and Social Factors at Work, the General Health Questionnaire, and the Scales of Personality (SSP). The SSP is made up of 13 scales that are grouped into the three personality dimensions of Neuroticism, Aggressiveness, and Extraversion. “The present study investigated whether persons in active work and who reported being bullied, or being witnesses to bullying, showed deviations on a personality test when compared with their non-bullied work colleagues” (p. 394).

The participant responses were broken into three subgroups that included Non-bullied \(n = 202\), Witnesses \(n = 31\), and Bullied \(n = 14\). The mean age for each group was Non-bullied (39), Witnesses (37), and Bullied (43). Those participants who were identified as bullies showed high scores of neuroticism. The witnesses to bullying had higher impulsiveness scores than their non-bullied counterparts (Persson et al., 2009). The study provided insight into the bullied person’s personality and how it could “trigger the perpetrator to conduct negative acts which are subsequently rewarded in terms of receiving an emotional reaction” (p. 396). Worry, mistrust, embitterment, irritability, and impulsiveness were all characteristics of the self-image of the bullied group.

Baughman et al. (2012) conducted the only study to date to examine the relationship between the Dark Triad personality traits and bullying in adults. The Dark Triad personality
traits are sub-clinical narcissism, Machiavellianism, and sub-clinical psychopathy (Baughman et al., 2012). There were 657 participants in the study that involved 203 males and 454 females. The mean age of the participants was 23.1. The Short-D3 was used to measure the Dark Triad personality traits and was made up of 28 items that used a 5-point Likert scale. The Bullying Questionnaire was created solely for this study to measure both bully status and type. There were 17 bullying behaviors listed that participants answered on the 5-point Likert scale that pertained to the past month of their lives (Baughman et al., 2012).

There were moderate to high correlations found among the Dark Triad traits and low to moderate correlations with the Bullying Questionnaire among all subscales (Baughman et al., 2012). “Machiavellianism was most highly correlated with Verbal Direct Bullying ($r = .21$), and psychopathy with Direct Bullying ($r = .53$). All correlations were significant at $p< .01$” (Baughman et al., 2012, p. 573). The Cronbach alpha also exhibited high internal consistency in all subscales. The results of the study suggest that various means are incorporated by those that engage in bullying in order to reach their main goal. The link between bullying and the Dark Triad were also supported in the results of this study.

**Summary**

Traditional bullying has been defined as intentional and repeated aggressive behavior that occurs in face to face interaction (Olweus, 1993). School yard bullying has been around for many years, however; a new form of peer aggression, cyberbullying, has come on the scene within the past two decades. Cyberbullying is defined as the “willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices” (Hinduja & Patchin, 2009, p. 5). Cyberbullying has some distinct characteristics that set it apart from other forms of bullying. Characteristics that help define cyberbullying include the possibilities of anonymity, a
less powerful person becoming the perpetrator, and the lack of face-to-face confrontations (Barlett & Gentile, 2012; Hinduja & Patchin, 2009; Kowalski et al., 2012; Wade & Beran, 2011).

The ever increasing advances in technology have allowed perpetrators of cyberbullying to reach their victims in many different forms and venues. The Internet provides cyberbullies a platform via email, blogs, instant messaging, chat rooms, and social media websites to seek out their victims (Subrahmanyam & Greenfield, 2008). Cell phones have also made access to the Internet much easier and have allowed cyberbullying to virtually become a non-stop event that has the potential to occur at any time of the day or night (Kowalski et al., 2012; Lenhart et al., 2012; Wang & Iannotti, 2012). Through these various platforms, cyberbullies can stalk, denigrate, ostracize, flame, happy-slap, harass, trick, swat, sext, and slut-shame their victims (Alvarez, 2012; Brandon, 2010; Curtis, 2008; Hinduja & Patchin, 2009; Kowalski et al., 2012; Marcum et al., 2012; Poole, 2013; Willard, 2007; Ybarra & Mitchell, 2004). The number of perpetrators and victims of cyberbullying is limitless because of the widespread availability of computers and cell phones that have Internet accessibility. It has been proven that both perpetrators and victims of cyberbullying spend more time on Internet activities (i.e. texting, email, social media) than non-victims (Hinduja & Patchin, 2008; Twyman et al., 2010).

Cyberbullying law is constantly being revised to protect victims, however; the First Amendment rights of all individuals have to always be considered by the courts during interpretation. The freedom of speech is protected by the United States Constitution, but absolute freedom of speech does not fall under its protective arm. Threats, obscenities, and defamation are not protections of free speech (McCarthy, 2014). State legislators have played an important role by passing laws against traditional bullying and cyberbullying (Hinduja & Patchin, 2014).
Predicting perpetration in cyberbullying has been the focus of recent studies. Social media sites such as Facebook, Twitter, and Instagram are platforms used by perpetrators to inflict harm on victims (Gorzig & Frumkin, 2013; Kwan & Skoric, 2013; Marcum et al., 2014). Results of recent studies have also found that those who are cybervictims are highly likely to retaliate and turn into cyberbullies (Connell et al., 2014; Doane et al., 2014; Roberto et al., 2014). Another common theme has been that females are more involved than males in cyberbullying as both perpetrators and victims (Connell et al., 2014; Festl & Quandt, 2013; Marcum et al., 2014; Snell & Englander, 2010).

Personality traits have been classified into five large factors, known as the Big 5, and have been used across cultures for many years (Barlett & Anderson, 2012). The HEXACO model, like the Big 5, has the basic five categories that are known across many cultures. However, the HEXACO model has incorporated a sixth personality trait, which is honesty-humility. The remaining traits that make up the HEXACO model are emotionality, extraversion, agreeableness, conscientiousness, and openness (Lee & Ashton, 2012).

There have been very few studies conducted on personality traits and cyberbullying (Ang et al., 2011; Festl & Quandt, 2013). The HEXACO personality model has only been used in one study profiling traditional bullying (Book et al., 2012). The data showed a significant negative correlation with traditional bullying and the HEXACO personality traits of honesty-humility, emotionality, agreeableness, and conscientiousness (Book et al., 2012). To date, there has not been a single study published using the HEXACO model to profile perpetrators and victims of cyberbullying. There is a definite gap in the literature with respect to the HEXACO personality model and cyberbullying. Personality traits may be the key to closing the gap in the literature of profiling both perpetrators and victims of cyberbullying. Technology is going to continue to
evolve and communication will become even more widespread than it is today. It is important to continue to study cyberbullying and possible predictors so that interventions can be put in place to help educate the youth of its dangers. Within the following three chapters the methodology used for this study will be discussed, the findings will be examined, and a discussion of the results will be included.
CHAPTER THREE: METHODS

Design

The research design used in this study is a non-experimental predictive correlation (Gall, Gall, & Borg, 2007; Warner, 2008). This research design was chosen because it allowed the researcher the ability to analyze the relationship of the six predictor variables from the HEXACO personality traits survey (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) with the two criterion variables. The criterion variables are perpetration and victimization, which were the data collected from freshman high school students via the Cyberbullying and Online Aggression survey on perpetrators and victims of cyberbullying.

Research Questions

The research questions for this study are:

**RQ1:** How accurately can the likelihood of being a perpetrator of cyberbullying be predicted from a linear combination of HEXACO measures (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students?

**RQ2:** How accurately can the likelihood of being a victim of cyberbullying be predicted from a linear combination of HEXACO measures (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students?

Null Hypotheses

The null hypotheses for this study are:
**H01:** There will be no significant predictive relationship between the criterion variable (the likelihood of being a perpetrator of cyberbullying) and the linear combination of predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students as measured by the HEXACO instrument.

**H02:** There will be no significant predictive relationship between the criterion variable (the likelihood of being a victim of cyberbullying) and the linear combination of predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students as measured by the HEXACO instrument.

**Participants and Setting**

The setting for the current study was a rural high school in South Carolina. The school has a total student population of close to 2,000 students with 530 students being housed on the freshman campus. The campus originally housed 9th-12th grade until the Freshman Academy was built on an adjacent lot in 2008. All students in the community attend this one high school. Racial demographics for the high school are 60% Caucasian, 35% African-American, and 5% Hispanic. The study and gathering of data took place in a computer lab, located within the Freshman Academy. The surveys the participants took during the study were hosted on Survey Monkey (http://www.surveymonkey.com), an online survey system. The setting was chosen based on proximity and the potential for gaining a large sample size.

The sample size for this study consisted of 256 freshman students, between the ages of 14 and 15 years old ($M = 14.62$), at a large high school in Upstate South Carolina. A convenience sample was used for this study because of the accessibility to the researcher. All of the
participants were enrolled in the same school and were housed in the 9th-grade academy. The study was comprised of 147 (57.4%) females and 109 (42.6%) males. The ethnic breakdown consisted of 159 (62.1%) Caucasian, 71 (27.7%) African-American, 14 (5.5%) Hispanic, and 12 (4.7%) Other.

Table 3.1

*Participants*

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<th>Group</th>
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<tr>
<td>Other</td>
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All of the participants were high school freshmen. The demographics that were collected during the study included age, gender, and ethnicity. A correlational study must have at least 100 participants plus the amount of predictor variables, which in this case are six, for a total of 106
participants at a minimum (Warner, 2008). This study exceeded the minimum sample size as recommended by Warner, (2008).

**Instrumentation**

The following section will examine the instrumentation that was used during the study. The first part consists of the HEXACO-PI-R and all of its components, while the second part looks at the Cyberbullying and Online Aggression Survey and all of its components.

**HEXACO-PI-R**

The HEXACO model of personality structure was used to identify the six dimensions of personality in the participants, which were used as predictor variables (See Appendix A). The following categories make up the HEXACO model: (a) Honesty-Humility, (b) Emotionality, (c) Extraversion, (d) Agreeableness, (e) Conscientiousness, and (f) Openness to Experience. Lee and Ashton (2012) provided high and low descriptions of persons in each personality range. A person who would be considered high in the Honesty-Humility (H) trait would avoid manipulating others, being false, and would be law-abiding. A low H person would exhibit traits such as flattery, pretending to like others, and entitlement. Someone who was high in Emotionality (E) would be fearful of harm and worry about minor matters, while a low E person would not be afraid of physical danger and would have little sentimental attachment to others (Lee & Ashton, 2012).

A high Extraversion (X) person would enjoy social interactions and see the positive qualities of themselves, while a low X person would tend to consider themselves as unpopular, prefer being alone, and being uncomfortable with attention. Those individuals that are high in Agreeableness (A) do not hold grudges, are not resentful, and are even-tempered. Conversely, low A people find it hard to forgive, are critical of others, and feel anger when provoked. People
who work hard to achieve their goals and are careful in their decision making are high in
Conscientiousness (C). However, individuals who are disorganized, avoid difficult tasks, and act
without thinking of the consequences are rated as low C. The Openness to Experience (O)
individuals are intellectually curious, use their imagination every day, and will listen to different
opinions, while those who are low O people avoid creativity, are indifferent to the arts, and are
not receptive to unconventional ideas (Lee & Ashton, 2012).

The HEXACO-60 model, which is the same tool in concept as the HEXACO personality
model, was used in the study. The HEXACO-60 personality model was chosen because it is a
survey that can be administered in a relatively brief amount of time (Ashton & Lee, 2009). The
survey was given to students in an online format, in a computer lab, by their classroom teacher.
The HEXACO-60 personality model was completed between 10 and 25 minutes by all
participants. There are a total of 60 items on the model with 10 statements listed per dimension.
Of the 60 total items on the survey, 31 are straightforward and 29 are reverse-keyed. Each
personality dimension has a smaller subset of four descriptor words that narrow each personality
trait down even further. For example, the Honesty-Humility trait has a total of 10 items on the
survey. Within those 10 items, sincerity, fairness, greed-avoidance, and modesty are all
examined. Emotionality is divided into fearfulness, anxiety, dependence, and sentimentality.
Extraversion items contain social self-esteem, social boldness, sociability, and liveliness. The
Agreeableness items examine forgiveness, gentleness, flexibility, and patience. Organization,
diligence, perfectionism, and prudence make up Conscientiousness, while aesthetic appreciation,
inquisitiveness, creativity, and unconventionality combine Openness to Experience (Lee &
Ashton, 2012).
There is a Likert scale used for the survey that ranges from 1 = \textit{strongly disagree}, 2 = \textit{disagree}, 3 = \textit{neutral}, 4 = \textit{agree} and 5 = \textit{strongly agree}. Each of the six categories has a possible range in scores from 10 to 50. The interpretation of the scores is as follows: 44 or above = Well above average; 36 to 43 = Somewhat above average; 28 to 35 = About average; 20 to 27 = Somewhat below average; and 19 or below = Well below average (Lee & Ashton, 2012). The Cronbach alpha for the HEXACO-60 is .78. The individual subscales are reported as follows: Honesty-Humility = .79, Emotionality = .78, Extraversion = .80, Agreeableness = .77, Conscientiousness = .78, and Openness to Experience = .77 (Ashton & Lee, 2009).

After the students completed the survey in the computer lab, the data were uploaded from the Survey Monkey website into a Microsoft Excel spreadsheet. The researcher then uploaded the data from the Excel spreadsheet into SPSS software (IBM Statistics Base Grade Pack 22, 2015), which was used to analyze the data. The authors of the survey have granted full rights to any researcher, free of charge, to download and use the self-report and observer report forms for the purpose of non-profit academic research (See Appendix G).

\textbf{Cyberbullying and Online Aggression Survey}

The Cyberbullying and Online Aggression Survey instrument, which was created by Hinduja and Patchin (2009 &2013), was used to determine perpetrators and victims of cyberbullying (See Appendix B). The survey was first created in 2009 but was revised in 2013 to reflect changes in social media. The instrument has been used in five major studies throughout this time period. There have been over 12,000 youth, between the ages of 11-18 years old that have taken the survey. The authors define cyberbullying as “when someone repeatedly harasses, mistreats, or makes fun of another person online or while using cell phones or other electronic devices” (Hinduja & Patchin, 2013, p. 1).
The definition is listed at the top of the survey for all participants to get a clear meaning of cyberbullying. There are nine questions that make up the cyberbullying victimization scale and nine questions that make up the cyberbullying offending scale. All questions are designed to pertain to the previous 30 days in the participant’s life. There is a Likert scale used for the survey that ranges from 0 = never, 1 = twice, 2 = a few times, 3 = many times, and 4 = every day. The combined possible scores on the Cyberbullying Victimization Scale range from 0-36. The combined possible scores on the Cyberbullying Offending Scale range from 0-36. The sum responses with higher values represent more involvement in cyberbullying for both victims and perpetrators (See Appendix B).

The survey was taken by the participants in a computer lab. Their classroom teacher administered the survey. After the students completed the survey in the computer lab, the data were uploaded from the Survey Monkey website into a Microsoft Excel spreadsheet. The researcher uploaded the data from the Excel spreadsheet into the SPSS ver.22 computer program. SPSS was used to analyze the data. The survey was completed by all participants in less than 15 minutes.

The Cronbach alpha range for the victimization scale is 0.905 – 0.935 respectively, while the range for the offending scale is 0.935 – 0.969 (Hinduja & Patchin, 2013). The factor analysis for the victimization scale ranges from .686 – .901 and the offending scale ranges from .537 – .949. The inter-item correlations range from .30 – .92 in the victimization scale and .45 – .94 in the offending scale. Permission to use this survey was granted by the creators as long as the research was going to be conducted for educational purposes and that proper attribution was given to its creators (Hinduja & Patchin, 2013). The researcher also emailed Dr. Patchin inquiring about a more recent survey that possibly reflected the change in social media. He
graciously provided and granted a revised survey, with permission to use it in this study, provided proper attribution was acknowledged (See Appendix H).

**Procedures**

The researcher gained district approval and then Institutional Review Board (IRB) (Protocol # 2106.031815) approval from Liberty University in order to conduct the research. The participants are freshman students, who were chosen, via a convenience sample, at a large high school in Upstate South Carolina. The total population of the freshman class at the research site is 530 students. The researcher was able to obtain 256 (48%) participants for the study. After gaining approval from the administrative staff, a meeting was conducted about the study with all freshman English teachers. English I classes were used because all freshmen are required to take this course during their first year in high school by the South Carolina Department of Education. There were a total of seven teachers and 21 sections of English I classes. Each section had an average of 25 students enrolled during the semester.

The researcher explained the significance of the study to the English teachers and asked that they support this study by giving up one class period to escort their students to the computer lab in order to take the HEXACO-60 personality model survey and the Cyberbullying and Online Aggression survey. The researcher gave each participating teacher a $25 Visa Gift Card to use at their pleasure for their support of the educational research. The incentive for teachers was used in order to try and ensure a valid predictive correlational study and for their willingness to help conduct the study.

After the teachers agreed to do the study, the researcher asked for parental permission for the freshman students to be allowed to participate in this study because of their minor status. The consent letter informed each parent or guardian of the importance of the research and that
their son or daughter’s participation would be greatly appreciated (See Appendix C). Parents were also informed that all surveys would be completely anonymous and that their child would not be in any danger at any time. The students who gained parental permission also had to sign a letter of assent in order to participate as well. Those students who were awarded parental permission and signed the assent letter were still given the opportunity to not participate in the study if they would have so chosen. All IRB rules and regulations were followed throughout the study. All survey data were used for educational research purposes only.

A seven-day schedule was created assigning each of the seven teachers to the computer lab, on a separate day, in order for the participants to take the two surveys. The Survey Monkey website was used to disseminate the surveys to each participant. The students who were granted permission and agreed to participate in the study were escorted to the computer lab by their teacher. Those students who chose not to participate were given an alternative assignment and remained in the classroom under the supervision of a substitute teacher. Upon entering the lab, the students were asked to take a seat at a computer. All computers were already turned on and at the login screen. Students were then asked to login to the computer with their personal student ID and password. Once all students had logged on to the computer they were directed by the teacher to select the Google Internet browser and enter the web address, surveymonkey/personalitycyberbullysurvey.com. The web address was written on a whiteboard for the students to refer to when they entered it. After the web address had been entered correctly, the students saw the title page of the study (See Appendix I).

The teacher had a hard copy of the title page, which included a description of the study and directions for beginning the surveys. The teacher read the title page to the students precisely as it appeared on the students’ computer screens (See Appendix I). After the title page had been
read by the teacher, the students began the survey by pressing the “Continue” button at the bottom of the screen. Those students who wished not to participate at that point had the opportunity to opt out of the study by pressing the “Exit Survey” button, which was located in the top right corner of the screen. The teacher-led instructions ended at that time and the students began the survey and finished it on their own.

The HEXACO-PI-R title page appeared on the screen after the students selected the “Begin Survey” button from the survey title page. The students read the directions of the HEXACO-PI-R title page and began the survey, which first asked three demographic questions that included sex, race, and age. The survey was made up of 60 questions, on a 5-point Likert scale. It did not take any student longer than 20 minutes to complete. After completing the HEXACO-PI-R survey, the students then saw the title page of the Cyberbullying and Online Aggression survey. As before, the students read the directions for this survey and pressed the “Begin Survey” button in the bottom right hand corner of the screen. It should be noted that there was an “Exit Survey” button in the top right hand corner of every screen of both surveys and that students had the opportunity to opt out by selecting it at any time. The Cyberbullying and Online Aggression survey consisted of two phases. The first phase was entitled, “Cyberbullying Victimization” and the second phase was entitled, “Cyberbullying Offending” (See Appendix B). Both phases of the survey were identical in the statements written; one focused on victimization while the other focused on offending or perpetrations. The survey was made up of 20 total questions, on a 5-point Likert scale. All students did not take any longer than 15 minutes to complete it.

The students ended the survey by selecting the “End Survey” button that was located in the bottom right hand corner of the screen. All previous screens had the “Continue to Next Page”
button in the bottom right hand corner of the screen to signal that the survey was not finished. Once the students selected the “End Survey” button they were directed to the final page of the study, which then directed them to close the Google browser and log off of their computer. Students were also prompted to not turn off the computer in order to save time for the next group that was coming in afterwards. The total amount of time that was taken on both surveys did not extend past 35 minutes for any student. The total amount of time that the entire process took from start to finish (i.e. leaving classroom, entering lab, taking surveys, etc…) took less than 60 minutes for each group of students.

**Analysis**

A multiple regression was used in this study to determine the relationship between the six dimensions of the HEXACO personality model (i.e. Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) in predicting the likelihood of freshman high school students being either a perpetrator or victim of cyberbullying. A multiple regression is a suitable method of analysis for this study because it allows for examining the relationship between several predictor variables and the criterion variable(s) (Gall et al., 2007; Warner, 2008). The current study had six predictor variables and two criterion variables. All variables in the study were continuous, with the HEXACO being measured from 10 to 50 and the victimization and perpetration of cyberbullying being measured from 0 to 36 respectively. The two null hypotheses in this study were tested using the same statistical procedures with an alpha level of .05.

Data screening was conducted with each criterion variable (perpetration/victimization) and each predictor variable (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience). The data were downloaded from
surveymonkey/personalitycyberbullysurvey.com into a Microsoft Excel spreadsheet. The researcher examined the data visually to make sure there were no mistakes with the transfer. Each participant in the study had to answer every question in the survey. The surveys created for the study did not allow any question to be skipped by any participant. A red flag would pop up for a question that was skipped by a participant and before moving on to the next page the skipped question had to be answered.

There was a univariate normal distribution shape for each score on $X$ and $Y$ of each predictor variable. The Kolmogorov-Smirnov test was used to test for normality (Warner, 2008). Histograms were examined to determine the normality of distribution and all six predictor variables passed the test of normality. The criterion and predictor $X$ and $Y$ scores were linearly related and the joint distribution of their scores had a bivariate normal shape from the examination of scatter plots. Box and whiskers plots were examined to determine if there were any extreme outliers (Howell, 2001; Warner, 2008). There were no extreme outliers within the six predictor variables. The criterion variables also produced a univariate normal distribution shape and each passed the Kolmogorov-Smirnov test of normality. There were also no extreme outliers identified within the criterion variables from box and whisker plots.

The following assumptions must hold true for a multiple regression test to be valid: independence of residuals, linearity between the predictor and criterion variables, homoscedasticity of residuals, no multicollinearity, no significant outliers, and normal distribution of residuals (Gall et al., 2007; Howell, 2011; Warner, 2008).

The Durbin-Watson test was conducted to check for the independence of residuals. Scatter plots were used to examine relationships in each predictor and criterion variable to check for linearity. Scatter plots were also used to examine homoscedasticity and that the residuals
were equal for all values of the predicted criterion variables (perpetration/ victimization of cyberbullying). Multicollinearity occurs when two or more predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) are highly correlated to one another (Warner, 2008). Collinearity statistics were examined to make sure that multicollinearity was not present in the predictor variables. The Pearson Correlation of each predictor variable was also examined to make sure that multicollinearity was not an issue. An examination of outliers was also conducted via scatterplots. This examination determined that there were no extreme bivariate outliers existing between the predictor and criterion variables. The final assumption test used was to check for the normal distribution of residuals. Histograms were examined again to make sure that the residuals were normally distributed. The regression model was tested using an $F$-statistic. The contribution of each individual predictor variable was determined by examining their slopes using a $t$-ratio and Pearson’s $r$ was used to calculate the effect size of the predictor and criterion variables.
CHAPTER FOUR: FINDINGS

Research Questions

The research questions for this study are:

**RQ1**: How accurately can the likelihood of being a perpetrator of cyberbullying be predicted from a linear combination of HEXACO measures (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students?

**RQ2**: How accurately can the likelihood of being a victim of cyberbullying be predicted from a linear combination of HEXACO measures (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students?

Null Hypotheses

The null hypotheses for this study are:

**H01**: There will be no significant predictive relationship between the criterion variable (the likelihood of being a perpetrator of cyberbullying) and the linear combination of predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students as measured by the HEXACO instrument.

**H02**: There will be no significant predictive relationship between the criterion variable (the likelihood of being a victim of cyberbullying) and the linear combination of predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students as measured by the HEXACO instrument.
Descriptive Statistics

The criterion variables in this study were made up of victimization and perpetration of cyberbullying. The predictor variables were made up of the six traits of the HEXACO personality model, which include Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience. See Table 4.1 for the criterion and predictor variables.

Table 4.1

Variables: Criterion and Predictor

<table>
<thead>
<tr>
<th>Criterion Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perpetration</td>
<td>256</td>
<td>1.64</td>
<td>1.83</td>
</tr>
<tr>
<td>Victimization</td>
<td>256</td>
<td>1.69</td>
<td>1.78</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honesty-Humility</td>
<td>256</td>
<td>32.07</td>
<td>5.80</td>
</tr>
<tr>
<td>Emotionality</td>
<td>256</td>
<td>33.05</td>
<td>7.54</td>
</tr>
<tr>
<td>Extraversion</td>
<td>256</td>
<td>32.50</td>
<td>6.54</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>256</td>
<td>29.53</td>
<td>5.17</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>256</td>
<td>32.80</td>
<td>5.85</td>
</tr>
<tr>
<td>Openness to Experience</td>
<td>256</td>
<td>28.35</td>
<td>5.80</td>
</tr>
</tbody>
</table>

Results

The following section includes a discussion of the data screening process. It also includes the results from both null hypotheses.
**Data Screening**

Data screening was conducted on each variable of interest, which included the criterion variables (perpetration/victimization) and the predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience). According to Warner (2008), bivariate data screening for quantitative variables should include a univariate normal distribution shape, a bivariate normal shape of the joint distribution of scores, a linear relationship, and homoscedasticity.

There was a univariate normal distribution shape for each score on $X$ and $Y$ of each criterion and predictor variable. The Kolmogorov-Smirnov test was used to test for normality for the criterion and predictor variables (Warner, 2008). Histograms were also examined to determine the normality of distribution and all six predictor variables and two criterion variables passed the test of normality. The criterion and predictor $X$ and $Y$ scores were linearly related and the joint distribution of their scores had a bivariate normal shape from the examination of scatter plots. Box and whiskers plots were also examined to determine if there were any extreme outliers (Howell, 2001; Warner, 2008). There were no extreme outliers within the six predictor variables or the two criterion variables.

**Null Hypothesis One**

The first null hypothesis is stated as, “There will be no significant predictive relationship between the criterion variable (the likelihood of being a perpetrator of cyberbullying) and the linear combination of predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students as measured by the HEXACO instrument.” A multiple regression was used to test the first null hypothesis. The following assumptions must hold true for a multiple regression test to
be valid: independence of residuals, linearity between the predictor and criterion variables, homoscedasticity of residuals, no multicollinearity, no significant outliers, and normal distribution of residuals (Gall et al., 2007; Howell, 2011; Warner, 2008). All data were entered and analyzed through SPSS 22.

The data entered from the Cyberbullying and Online Aggression survey and from the HEXACO-PI-R had independence of residuals. There was no cause to think that the data from both surveys would have been related, however; SPSS generated a Durbin-Watson statistic to test this assumption. The Durbin-Watson statistic has a set range from 0 to 4 and a number close to 2 indicates that there is no correlation between the residuals. The Durbin-Watson statistic for the criterion variable perpetration and the predictor variables (HEXACO) was 2.16.

A scatter plot was conducted on the criterion variable perpetration with each HEXACO predictor variable. All relationships between the criterion and predictor variables were linear as shown in the partial regression plots in Figure 4.1 through 4.6.

**Figure 4.1. Partial Regression Plot of the Data Set of Honesty-Humility and Perpetration**
Figure 4.2. Partial Regression Plot of the Data Set of Emotionality and Perpetration

Figure 4.3. Partial Regression Plot of the Data Set of Extraversion and Perpetration.
Figure 4.4. Partial Regression Plot of the Data Set of Agreeableness and Perpetration

Figure 4.5. Partial Regression Plot of the Data Set of Conscientiousness and Perpetration
Homoscedasticity of the residuals was checked via a scatterplot as well, and the assumption had not been violated. The spread of the residuals was equally distributed across the predicted values (Warner, 2008). Multicollinearity was also checked through SPSS and none of the predictor variables had correlations greater than 0.7. All tolerance values were also less than 0.1, which indicated no multicollinearity problems (Warner, 2008). Casewise diagnostics was used to check the standardized residuals for any outliers in the data. No data points were beyond ±3 standard deviations. The assumption of normality of the residuals was determined from examining a histogram and a P-P Plot. The standardized residuals were approximately normally distributed on the histogram (Figure 4.7) and the P-P Plot (Figure 4.8).
Figure 4.7. Histogram of the Standardized Residuals for Perpetration

Figure 4.8. P-P Plot of the Standardized Residuals for Perpetration
A multiple regression was used to test the first null hypothesis at the .05 alpha level. The first null hypothesis was rejected because there was a significant predictive relationship between perpetration and the HEXACO factors of personality. The six HEXACO factors (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) significantly predicted the criterion variable perpetration, $F(6, 249) = 60.23, p < .001$ as shown in Table 4.2. Table 4.3 shows the multiple correlation coefficient for the prediction model as $R = .77$, $\text{adj } R^2 = .58$, $R^2 = .59$. Therefore, the predictor variables explain 59% of the variability in the criterion variable perpetration.

Table 4.2

**ANOVA$^a$ - Perpetration**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>$df$</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>505.500</td>
<td>6</td>
<td>84.250</td>
<td>60.227</td>
<td>.000$^b$</td>
</tr>
<tr>
<td>Residual</td>
<td>348.319</td>
<td>249</td>
<td>1.399</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Total</td>
<td>853.819</td>
<td>255</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

$^a$Criterion Variable: Perpetration. $^b$Predictors: Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience

Table 4.3

**Model Summary - Perpetration**

<table>
<thead>
<tr>
<th></th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perpetration</td>
<td>.769$^a$</td>
<td>.592</td>
<td>.582</td>
</tr>
</tbody>
</table>

$^a$Predictors: Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience

Each predictor variable (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) was inspected separately in order to determine which contributed most to predicting the criterion variable perpetration. The value of each criterion variable was, Honesty-Humility ($p < .001$), Emotionality ($p = .392$), Extraversion ($p = .392$), Agreeableness ($p = .392$), Conscientiousness ($p = .392$), and Openness to Experience ($p = .392$).
.854), Agreeableness ($p = .809$), Conscientiousness ($p < .001$), and Openness to Experience ($p = .697$) as shown in Table 4.4. The predictor variables Emotionality, Extraversion, Agreeableness, and Openness to Experience were not statistically significant at the .05 level. However, Honesty-Humility and Conscientiousness did have a statistically significant alpha level and were the best two predictors of perpetration in cyberbullying.

Table 4.4

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>t</th>
<th>Sig.</th>
<th>Zero-Order</th>
<th>Partial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honesty-Humility</td>
<td>-.170</td>
<td>.014</td>
<td>-.538</td>
<td>-11.869**</td>
<td>.000</td>
<td>-.651</td>
<td>-.601</td>
</tr>
<tr>
<td>Emotionality</td>
<td>.009</td>
<td>.010</td>
<td>.036</td>
<td>.857</td>
<td>.392</td>
<td>-.125</td>
<td>.054</td>
</tr>
<tr>
<td>Extraversion</td>
<td>.002</td>
<td>.012</td>
<td>.008</td>
<td>.185</td>
<td>.854</td>
<td>-.004</td>
<td>.012</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.004</td>
<td>.015</td>
<td>.010</td>
<td>.242</td>
<td>.809</td>
<td>-.214</td>
<td>.015</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-.136</td>
<td>.014</td>
<td>-.435</td>
<td>-9.594**</td>
<td>.000</td>
<td>-.579</td>
<td>-.519</td>
</tr>
<tr>
<td>Openness to Experience</td>
<td>.005</td>
<td>.014</td>
<td>.017</td>
<td>.390</td>
<td>.697</td>
<td>-.194</td>
<td>.025</td>
</tr>
</tbody>
</table>

Note. **$p < .001$**

A significant statistical relationship was found between the predictor variable Honesty-Humility and the criterion variable perpetration, ($p < .001$). The relationship between the two variables was negative, as shown in Figure 4.9, meaning that as the Honest-Humility personality trait decreased, perpetration of cyberbullying increased. There was also a significant statistical relationship between the predictor variable Conscientiousness and the criterion variable perpetration, ($p < .001$). The relationship between these two variables was also negative, as shown in Figure 4.10, meaning that as the Conscientiousness personality trait decreased, perpetration of cyberbullying increased.
Figure 4.9. Scatter Plot between Honesty-Humility and Perpetration
Null Hypothesis Two

The second null hypothesis is stated as, “There will be no significant predictive relationship between the criterion variable (the likelihood of being a victim of cyberbullying) and the linear combination of predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students as measured by the HEXACO instrument.” A multiple regression was also used to test the second null hypothesis. The following assumptions must hold true for a multiple regression test to be valid: independence of residuals, linearity between the predictor and criterion variables, homoscedasticity of residuals, no multicollinearity, no significant outliers, and normal
distribution of residuals (Gall et al., 2007; Howell, 2011; Warner, 2008). All data were entered and analyzed through SPSS 22.

A Durbin-Watson statistic was created in SPSS to check for independence of residuals. The Durbin-Watson statistic for the criterion variable victimization and the predictor variables (HEXACO) was 1.88. A scatter plot was created on the criterion variable victimization with each HEXACO predictor variable. All relationships between the criterion and predictor variables were linear as shown in the partial regression plots in Figure 4.11 through 4.16.

Figure 4.11. Partial Regression Plot of the Data Set of Honesty-Humility and Victimization.
Figure 4.12 Partial Regression Plot of the Data Set of Emotionality and Victimization

Partial Regression Plot
Dependent Variable: Victim

Figure 4.13. Partial Regression Plot of the Data Set of Extraversion and Victimization

Partial Regression Plot
Dependent Variable: Victim
Figure 4.14. Partial Regression Plot of the Data Set of Agreeableness and Victimization

Figure 4.15. Partial regression plot of the data set of Conscientiousness and Victimization
Homoscedasticity of the residuals was checked via a scatterplot and the assumption had not been violated. The spread of the residuals was equally distributed across the predicted values (Warner, 2008). Multicollinearity was checked through SPSS and none of the predictor variables had correlations greater than 0.7. All tolerance values were also less than 0.1, which indicated no multicollinearity problems (Warner, 2008). Casewise diagnostics was used to check the standardized residuals for any outliers in the data. No data points were beyond $\pm 3$ standard deviations. The assumption of normality of the residuals was determined from examining a histogram and a P-P Plot. The standardized residuals were approximately normally distributed on the histogram (Figure 4.17) and the P-P Plot (Figure 4.18).
Figure 4.17. Histogram of the Standardized Residuals for Victimization

![Histogram of the Standardized Residuals for Victimization](image)

Figure 4.18. P-P Plot of the Standardized Residuals for Victimization

![P-P Plot of the Standardized Residuals for Victimization](image)
A multiple regression was used to test the second null hypothesis at the .05 alpha level. The second null hypothesis was rejected because there was a significant predictive relationship between victimization and the HEXACO factors (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) significantly predicted the criterion variable victimization, $F(6, 249) = 37.54, p < .001$ as shown in Table 4.5. Table 4.6 shows the multiple correlation coefficient for the prediction model as $R = .69$, $\text{adj } R^2 = .46$, $R^2 = .48$. Therefore, the predictor variables explain 48% of the variability in the criterion variable victimization.

Table 4.5

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>381.623</td>
<td>6</td>
<td>63.604</td>
<td>37.54</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>421.869</td>
<td>249</td>
<td>1.694</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Total</td>
<td>803.492</td>
<td>255</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

*Criterion Variable: Victimization. *Predictors: Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience

Table 4.6

<table>
<thead>
<tr>
<th></th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victimization</td>
<td>.689</td>
<td>.475</td>
<td>.462</td>
</tr>
</tbody>
</table>

*Predictors: Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience

Each predictor variable (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) was inspected separately in order to determine which contributed most to predicting the criterion variable victimization. The value of each criterion variable was, Honesty-Humility ($p = .075$), Emotionality ($p < .001$), Extraversion ($p <$
.001), Agreeableness ($p = .785$), Conscientiousness ($p = .030$), and Openness to Experience ($p = .389$) as shown in Table 4.7. The predictor variables Honesty-Humility, Agreeableness, and Openness to Experience were not statistically significant at the .05 level. However, Emotionality, Extraversion, and Conscientiousness did have a statistically significant alpha level and were the best three predictors of victimization in cyberbullying.

Table 4.7

*Contribution of Predictor Variables for Victimization (N = 256)*

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
<th>Zero-Order</th>
<th>Partial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honesty-Humility</td>
<td>-.028</td>
<td>.016</td>
<td>-.092</td>
<td>-1.790</td>
<td>.075</td>
<td>.046</td>
<td>-.113</td>
</tr>
<tr>
<td>Emotionality</td>
<td>.129</td>
<td>.011</td>
<td>.549</td>
<td>11.407**</td>
<td>.000</td>
<td>.576</td>
<td>.586</td>
</tr>
<tr>
<td>Extraversion</td>
<td>-.090</td>
<td>.013</td>
<td>-.332</td>
<td>-6.773**</td>
<td>.000</td>
<td>-.428</td>
<td>-.394</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>-.005</td>
<td>.017</td>
<td>-.013</td>
<td>-.274</td>
<td>.785</td>
<td>-.022</td>
<td>-.017</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-.034</td>
<td>.016</td>
<td>-.112</td>
<td>-2.185*</td>
<td>.030</td>
<td>-.132</td>
<td>-.137</td>
</tr>
<tr>
<td>Openness to Experience</td>
<td>.013</td>
<td>.015</td>
<td>.042</td>
<td>.863</td>
<td>.389</td>
<td>.141</td>
<td>.055</td>
</tr>
</tbody>
</table>

*Note.* *p* < .05, **p** < .001

A significant statistical relationship was found between the predictor variable Emotionality and the criterion variable victimization, ($p < .001$). The relationship between the two variables was positive, as shown in Figure 4.19, meaning that as the Emotionality personality trait increased, victimization of cyberbullying increased. A significant statistical relationship was found between the predictor variable Extraversion and the criterion variable victimization, ($p < .001$). The relationship between the two variables was negative, as shown in Figure 4.20, meaning that as the Extraversion personality trait decreased, victimization of cyberbullying increased. There was a significant statistical relationship between the predictor
variable Conscientiousness and the criterion variable victimization, \( p = .03 \). The relationship between these two variables was negative, as shown in Figure 4.21, meaning that as the Conscientiousness personality trait decreased, victimization of cyberbullying increased.

Figure 4.19. Scatter Plot between Emotionality and Victimization
Figure 4.20. Scatter Plot between Extraversion and Victimization

Figure 4.21. Scatter Plot between Conscientiousness and Victimization
CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Discussion

The purpose of this non-experimental, predictive correlational study was to examine the personality traits of high school freshmen, using the HEXACO personality model and its relationship with perpetration or victimization of cyberbullying, as predicted by the Cyberbullying and Online Aggression survey. This study was driven by two research questions:

RQ1: How accurately can the likelihood of being a perpetrator of cyberbullying be predicted from a linear combination of HEXACO measures (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students?

RQ2: How accurately can the likelihood of being a victim of cyberbullying be predicted from a linear combination of HEXACO measures (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students?

Null Hypothesis One

The first null hypothesis stated, “There will be no significant predictive relationship between the criterion variable (the likelihood of being a perpetrator of cyberbullying) and the linear combination of predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students as measured by the HEXACO instrument.” A multiple regression was used to test the first null hypothesis. The first null hypothesis was rejected because a significant predictive relationship existed between perpetration of cyberbullying and the HEXACO factors of personality. The HEXACO factors of personality significantly predicted the criterion variable.
Honesty-Humility and Conscientiousness were the two best predictors of perpetration in cyberbullying. Both personality traits were negatively correlated with cyberbully perpetration. Also, a statistical significant relationship existed between Conscientiousness and perpetration.

This study was the first to use the HEXACO personality model to predict perpetration and victimization in cyberbullying. The first null hypothesis focused on perpetration of cyberbullying and the HEXACO model. A similar study was conducted by Book et al. (2012) with the HEXACO model and traditional bullying. There was a significant negative correlation found in traditional bullying with Honesty-Humility, Emotionality, Agreeableness, and Conscientiousness traits. Although the current study did not show a significant relationship in the Emotionality and Agreeableness traits, there was a statistically significant negative correlation between the Honesty-Humility and Conscientiousness traits. There are obvious differences between cyberbullying and traditional bullying, however; there have been several studies that have linked the two together (Kowalski et al., 2012; Steffgen & Konig, 2009; Twyman et al., 2010; Wang & Iannotti, 2012). Therefore, the current study’s results support the Book et al. (2012) study with regards to the HEXACO model predicting bullying perpetration.

Although there is no single profile that determines a perpetrator of cyberbullying, individuals who combine low H and low C personality traits seemingly are prime candidates. “People who have both the exploitativeness of low H and the impulsiveness of low C are doubly inclined toward bad behavior in general” (Ashton & Lee, 2012, p. 59). An individual who is deceitful, sly, irresponsible, and acts without thinking of the consequences could have a tendency to be a perpetrator of cyberbullying. Kinga, Karmen, Eniko, Andrea, and Noemi-Emese (2014) conducted a pilot study on creative style and HEXACO personality traits in students who were involved in cyberbullying. Kinga et al., (2014) examined cyberbullies, cyberbully-victims, and
victims. They found that cyberbully-victims were more extraverted, conscientious, and open to experience. Cyberbullies were less honest and less emotional (Kinga et al., 2014). The current study partially supports Kinga et al., (2014) with regards to cyberbullies scoring low on the Honesty-Humility trait. Both the Honesty-Humility and Conscientiousness trait were statistically significant in the current study.

The theoretical framework that helped guide the study was Bandura’s moral disengagement (2002) and Suler’s online disinhibition effect (2004). Moral disengagement is the cognitive process an individual undergoes in order to justify damaging behaviors that are contrary to one’s own moral standards. Online disinhibition is the process of everyday users of the Internet participating in online activities and doing things in cyberspace that they might never do in face-to-face real life situations (Suler, 2004). Moral disengagement and online disinhibition are closely related to cyberbully perpetration because of the anonymity, invisibility, asynchronicity, and lack of moral standards that bullies adhere to in the online world. An individual whose personality combines low H and low C traits has the likelihood of being a perpetrator of cyberbullying, because a deceitful, sly, negligent, reckless person will disengage their moral self while disinhibiting themselves from the “real world” in cyberspace for gain to cyberbully others.

Null Hypothesis Two

The second null hypothesis stated, “There will be no significant predictive relationship between the criterion variable (the likelihood of being a victim of cyberbullying) and the linear combination of predictor variables (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience) for high school freshman students as measured by the HEXACO instrument.” A multiple regression was used to test the
second null hypothesis. The second null hypothesis was rejected because a significant predictive relationship existed between victimization of cyberbullying and the HEXACO factors of personality. The HEXACO factors of personality significantly predicted the criterion variable victimization.

As stated earlier, this study was the first to use the HEXACO personality model to predict perpetration and victimization in cyberbullying. The second null hypothesis focused on victimization of cyberbullying and the HEXACO model. A statistical significant relationship was found in the following predictor variables: Emotionality, Extraversion, and Conscientiousness. Festl and Quandt (2013) conducted a study on cyberbullying using the Big 5 traits and found that victims shared the conscientiousness trait of personality. Bolle and Tackett (2013) also determined that victimization was significantly negatively correlated with conscientiousness in their study on cyberbullying and personality using the Big 5 model. Ashton and Lee (2007) determined that the conscientiousness trait in the HEXACO model was very similar to conscientiousness in the Big 5 model. Therefore, the current study supports previous studies with regards to cyberbullying victimization and the conscientiousness trait.

There were three significantly statistical traits, Emotionality, Extraversion, and Conscientiousness, that predicted victimization in cyberbullying. The data showed that as Emotionality increased, victimization of cyberbullying also increased. Ashton and Lee (2012) describe high E (Emotionality) people as being oversensitive, anxious, nervous, worrying about minor matters, and fearful of physical harm. The data showed that as Extraversion increased, victimization decreased. Ashton and Lee also describe low X (Extraversion) people as shy, passive, quiet, consider themselves to be unpopular, and feel uncomfortable with attention. Conscientiousness was the only trait that appeared in both perpetrators and victims.
Conscientiousness was negatively correlated in victims as well albeit at a smaller proportion. Characteristics of these three personality traits seem to fit well with victims of cyberbullying.

There has been very little data collected in the field of cyberbullying with regards to those students who are victimized. Kinga et al., (2012) did find that male victims of cyberbullying are more extraverted, emotional, conscientious, and less honest, while female victims are more conscientious and more open to experience. The current study did not differentiate between males and females, however; the data did show that victimization of cyberbullying was higher in those students who were more emotional. Nevertheless, the current study contradicted Kinga et al. with regards to Extraversion and Conscientiousness, which were less or negative traits in victims of cyberbullying. Although there is no single profile, an individual who combines high E, low X, and low C traits of the HEXACO model could be a candidate. An individual who is anxious, passive, negligent, considers themselves as unpopular, and fears physical harm could have a tendency to be a victim of cyberbullying.

**Conclusions**

This study showed that certain HEXACO personality traits were statistically significant in predicting cyberbullying perpetration and victimization in freshman high school students. Honesty-Humility and Conscientiousness predicted cyberbully perpetration, whereas Emotionality, Extraversion, and Conscientiousness predicted cyberbully victimization. Most of the research focus with the cyberbully phenomenon has been with the perpetrator, not the victim. The major characteristics of cyberbullying are that it occurs through electronic means, has no space or time, has no strength factor, and can be completely anonymous. All cyberbullies have to gain access to some form of electronic device in order to communicate online. Unfortunately,
21st century students have an abundant amount of resources and opportunities to access the Internet, which is today’s schoolyard playground.

There is no single profile of a perpetrator or victim of cyberbullying. There are several characteristics that are shared among perpetrators and victims of cyberbullying, however; perpetration and victimization characteristics are not cookie cutter layouts. This particular study focused on personality traits and their relationship with cyberbullying perpetration and victimization. Kowalski et al. (2012) discussed common characteristics found in bullies, which included displaying a dominant personality, having a quick temper, being impulsive and easily frustrated, showing little empathy, experiencing difficulty in following rules, and engaging in proactive and reactive aggression. In examining the results of this study, one may find them interesting, but not surprising.

It is important to see the connection of personality traits with cyberbullying perpetration and victimization. This study found statistical significance between HEXACO traits and cyberbullying. The correlational design does not allow for causation but it does allow for relationships and predictions to be determined from the results. The findings suggest that individuals are likely to be perpetrators of cyberbullying if they have personality traits that are low in Honesty-Humility (H) and low in Conscientiousness (C). Low H and low C personality traits relate to cyberbullying because they share some of the same characteristics that researchers have identified in perpetrators. Characteristics such as deceitfulness, pompousness, irresponsibility, negligence, and being self-centered describe low H and low C individuals. These same characteristics are interchangeable with perpetrators of cyberbullying. A perpetrator of cyberbullying uses hurtful words or images to break down the victim with no consideration of how damaging their actions are or of the long term effect that it may cause on an individual.
It is equally important to identify potential victims of cyberbullying. Although anyone can be victimized in cyberspace, the results of this study suggest that certain personality traits share a stronger relationship with victimization. The HEXACO personality traits related to cyberbullying victimization were high Emotionality, low Extraversion, and low Conscientiousness. All of these traits were statistically significant in predicting victimization. Kowalski et al. (2012) identified the following characteristics of bullied children: typically quiet and sensitive, low self-esteem, socially isolated, anxious, fearful of harm, and depressed. Characteristics such as fear, worry, anxiety, withdrawal, shyness, and impulsivity describe high Emotionality, low Extraversion, and low Conscientiousness individuals. Those individuals that identified with cyberbullying victimization in the current study exhibited these personality traits. A victim of cyberbullying is the target of online harassment who is broken down emotionally by the bully, which can lead to further problems if interventions are not made on their behalf.

Interestingly, the Conscientiousness trait was shared by perpetrators and victims of cyberbullying. There was a very large effect size ($r = -.579$) for perpetrators and a medium effect size ($r = -.132$) for victims. The Conscientiousness trait had a negative correlation with both criterion variables and was statistically significant. On the contrary, the Honesty-Humility, Emotionality, and Extraversion traits were not shared by perpetrators and victims. The effect size for Honesty-Humility in perpetration was very large ($r = -.651$). The effect size for Emotionality ($r = .576$) and Extraversion ($r = -.428$) in victimization was large as well. The impulsivity of a low C person is a characteristic of both perpetration and victimization in cyberbullying, which could explain their shared relationship. The distinctive characteristics of perpetration of cyberbullying lends itself more solely to the low Honesty-Humility trait of personality because perpetrators are typically self-centered, manipulative, and
deceitful. Conversely, distinctive characteristics of victimization of cyberbullying lends itself more solely to the high Emotionality and low Extraversion traits of personality because victims typically tend to be anxious, fearful of harm, and worrisome.

This study has contributed to the literature in the area of cyberbullying perpetration and victimization by identifying specific HEXACO personality traits as predictors. The act of profiling is gathering a body of data that produces mutual patterns so that a description of an individual can be developed. Although a specific profile for cyberbully perpetration and victimization may never be fully developed, it is important to identify characteristics, including personality traits that may prove certain individuals are more susceptible to become a perpetrator or victim of cyberbullying.

**Implications**

The results of this study should be taken into account when examining possible factors that contribute to cyberbullying perpetration and victimization. The results showed that there was a significant relationship between the HEXACO personality traits and perpetration and victimization of cyberbullying. The current study may be the first of its kind to solely examine HEXACO personality traits and their relationship with cyberbullying. The goal of the study was to extend the research of the HEXACO personality model in hopes of finding relationships with both perpetrators and victims of cyberbullying. The results of this study accomplished the goal and helped close the gap in the literature with regards to HEXACO personality traits and cyberbullying.

A review of the literature revealed several contributing factors of cyberbullying perpetration and victimization. Cyberbullying perpetrators and victims are more likely to spend more time on the Internet and use social media (Hinduja & Patchin, 2008; Twiman et al., 2010;
Werner et al., 2010). Kwan and Skoric (2013) found a positive relationship with the intensity of Facebook usage and that of Facebook victimization through cyberbullying. The Roberto et al. (2014) study resulted in a positive relationship with victims of cyberbullying becoming perpetrators themselves. Connell et al. (2014) also found that cybervictims became cyberbullies and vice versa. It seems that females are more likely than males to bully online and become victims online (Connell et al., 2014; Festl & Quandt, 2013; Marcum et al., 2012; Snell & Englander, 2010).

The results of this study suggest that there is a statistically significant relationship between the Honesty-Humility and Conscientiousness personality traits of HEXACO and cyberbullying perpetration. The study suggests that there is a statistically significant relationship between the Emotionality, Extraversion, and Conscientiousness personality traits of HEXACO and cyberbullying victimization. Therefore, the gap in the literature has been closed further from the results of this study. The use of technology will continue to evolve and be more accessible to students in our schools in the coming years. Many schools are going to a 1:1 initiative where all students will have a laptop or an iPad that will be in their possession for an entire school year. Students will access textbooks from their school laptops and communicate with teachers and other students through email, instant messaging, and social media. There will come a time in the near future when all students will have these electronic devices. Inevitably, the potential for cyberbullying perpetration and victimization could increase among our students because of the easy access that will be granted to electronic devices provided by our schools.

The act of bullying continues in schools, the workplace, and in society as a whole. Cyberbullying shares several traits with bullying, however; there are traits that make cyberbullying a more serious threat. Cyberbullying can be anonymous, can occur at home, is not
limited to time or space, and can captivate a much larger audience (Gorzig & Frumkin, 2013; Hinduja & Patchin, 2009; Wang et al., 2011). Recent studies have already shown that those individuals who spend more time on the Internet are more involved in cyberbullying and are more likely to become cybervictims themselves. The current study has helped close the gap in the literature by suggesting that certain HEXACO personality traits could lead to a stronger profile of perpetrators and victims of cyberbullying. Cyberbullying is a phenomenon that does not discriminate among race, gender, or sex, and has the capabilities to reach any individual at any time. It is vital for educators to begin implementing intervention programs as early as the elementary level on cyberbullying to better educate this generation of children on the dangers and the pitfalls that can potentially come with technology.

**Limitations**

The correlational design of the study was a limitation. Only relationships and or predictions can be determined from a correlational study. The results cannot be causal in nature for this type of study (Warner, 2008). Although the results of this study showed a statistically significant relationship between some of the HEXACO personality traits and cyberbullying perpetration and victimization, it cannot be determined that a specific personality trait causes one to be either a perpetrator or victim of cyberbullying.

Another limitation of the study was the self-report data that were utilized. All participants took the HEXACO PI-R and Cyberbullying Online and Aggression Survey in a computer lab that was supervised by their classroom teacher. Anytime a self-report survey is used, there is the potential for participants to be dishonest and skew the data. In order to limit this threat, students were all asked to be completely honest with their answers. They were also assured that all responses would be completely anonymous and that no one, not even the
researcher, would ever know their answers. All students in the study were given the same recruitment letter and consent/assent letter (Appendix C & D) that had all of the information about the study. Once the data collection phase began, all participants were read the title page (Appendix I) by their teacher that also asked students to be honest and reassured them that anonymity would be maintained. All participants had the option of not finishing the survey as well on each page by selecting the “Exit Survey” button at the top right hand of the screen if they began to feel uncomfortable during the survey. All 256 participants completed both surveys in their entirety. It was the hope of the researcher that the participants were honest throughout both surveys because of the steps taken prior to make them feel comfortable about participating. The HEXACO PI-R survey also has an Observer Report Form that could be used in conjunction with the Self Report Form in future research in order to provide a more precise representation of a participant’s personality scores and limit self-report bias.

**Recommendations for Future Research**

There are several recommendations for future research within the topic of HEXACO personality traits and cyberbullying perpetration and victimization. A future study that examines gender and race with regards to personality to see if those variables could have a statistically significant relationship with cyberbullying perpetration or victimization is recommended. Socio-economic status could also be studied to see what HEXACO personality traits, if any, predict perpetration or victimization. A self-observer report was used in both surveys for this study, which had its limitations. However, an observer-report along with a self-report could be used with the HEXACO PI-R survey to get a better representation of personality. A future researcher may want to use an observer-report on cyberbullying as well to gain a more precise representation of perpetrators and victims. Thus a qualitative study may be warranted.
Qualitative studies could be utilized to focus on participant observation or in-depth interviews to gain a better understanding of the phenomenon of cyberbullying. A longitudinal study is recommended that would focus on cyberbullying victims and perpetrators and the consequences they face from early middle school age through college graduation and early adulthood. The amount of research in the field of cyberbullying is rather lean because the main avenue, the Internet, is a little over two decades old. As technology has improved over this time period, it has allowed for various forms of communication such as email, texting, instant messaging, social media, and blogs to become a part of normal society. A study that utilized the different types of media with regards to personality and cyberbullying could also help to construct a stronger profile of perpetrators and victims. Finally, a replication of this study could be utilized with middle school students because of the increase in technology in our schools. Students will have access to the electronic devices needed to join the Internet community at an even younger age and early detection and intervention in cyberbullying will be paramount.
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APPENDIX A:

HEXACO-PI-R Survey Instrument

(Link)

http://hexaco.org/hexaco-inventory
APPENDIX B:

Cyberbullying and Online Aggression Survey Instrument (2013 version)

(Link)
APPENDIX C:

Consent Form

The Relationship between HEXACO Personality Traits and Cyberbullying Perpetrators and Victims

Mr. David Smith
Liberty University
Education Department

You are invited to be in a research study about personality traits and cyberbullying. You were selected as a possible participant because you are a first time 9th grader. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Mr. David Smith who is the 11th grade principal. I am currently fulfilling requirements for an Ed.D.

Background Information:

The purpose of this study is to examine the relationship between personality traits and cyberbullying victims and or perpetrators.

Procedures:

If you agree to be in this study, I would ask you to do the following things:

- Take a survey on personality traits
- Take a survey on cyberbullying

Risks and Benefits of being in the Study:

The risks of this study are no more than you would encounter in everyday life. The participants in this study will be taking two anonymous surveys through their English I classes. The surveys will be completely anonymous and there will be no identifying questions (e.g. Name, birthday, Social Security number, Power School number, address, etc...) asked of the students.

The major benefit from participating in this study will be the fact that is has never been attempted. There has never been a study on HEXACO personality traits and their relationship with cyberbullying victims and or perpetrators. The results of this study may lead to further research on the topic of personality traits and cyberbullying.

Compensation:

You will not receive payment for being a participant in this study. However, you will receive a classroom participation grade if you decide to take part in the study.
Confidentiality:

The records of this study will be kept private. There will be no identifying factors or questions in the two surveys that will be asked of the participants. In any sort of report I might publish, I will not be able to include any information that will make it possible to identify a subject because there will be no personal identifying factors within the data. Research records will be stored securely and only the researcher will have access to the records. All records of the study must be kept in a secure location for a minimum of three years based on IRB regulations. All records will be destroyed after the three year time period has lapsed.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with your teacher or Mr. Smith. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is Mr. David Smith. You may ask any questions you have now. If you have questions later, you are encouraged to contact me at [contact information]. You may also contact Dr. Paul Tapper, advisor to Mr. Smith, at [contact information] or email at [email address].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24502 or email at irb@liberty.edu.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature: ____________________________________________ Date: ________________

Signature of Parent or Guardian: __________________________ Date: ________________

Signature of Investigator: ______________________________ Date: ________________
APPENDIX D:

Assent Form

Assent of Child to Participate in a Research Study

What is the name of the study and who is doing the study?

- The Relationship Between HEXACO Personality Traits and Cyberbullying Perpetrators and Victims
- Mr. David Smith – 11th Grade Principal

Why are we doing this study?

- I am interested in studying personality traits of 9th grade students and their relationship to cyberbullying perpetrators and victims.

Why am I asking you to be in this study?

- You are being asked to be in this research study because you are a first time 9th grader.

If you agree, what will happen?

- If you agree to participate in this study then you will take two online anonymous surveys during your English I class on personality traits and cyberbullying at a date to be determined.

Do you have to be in this study?

- No, you do not have to be in this study. If you want to be in this study, then tell the researcher. If you don’t want to, it’s OK to say no. The researcher will not be angry. You can say yes now and change your mind later. It’s up to you.

Do you have any questions?

- You can ask questions any time. You can ask now. You can ask later. You can talk to the researcher. If you do not understand something, please ask the researcher to explain it to you again.

Signing your name below means that you want to be in the study.

Signature of Child __________________________________________________________
Date __________________________________________________________
Mr. David Smith – Graduate Student
Liberty University

Dr. Paul Tapper – Professor
Liberty University

Liberty University Institutional Review Board,
1971 University Blvd, Suite 1837, Lynchburg, VA 24515
or email at irb@liberty.edu.
APPENDIX E:
District Consent Form

CONSENT TO CONDUCT RESEARCH STUDY

THE RELATIONSHIP BETWEEN HEXACO PERSONALITY TRAITS AND CYBERBULLYING PERPETRATORS AND VICTIMS

Mr. David Smith
Liberty University
Education Department

Your school district, specifically the 9th Grade Freshman Academy of [redacted], is invited to be in a research study about personality traits and cyberbullying. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Mr. David Smith, Educational Doctorate Candidate.

Dear Dr. [redacted]

As a graduate student in the Education Department at Liberty University, I am conducting research as part of the requirements for an Ed.D in Curriculum and Instruction. The title of my research project is, “The Relationship between HEXACO Personality Traits and Cyberbullying Perpetrators and Victims.” The purpose of my research is to examine the personality traits of high school freshmen, using the HEXACO personality model and its relationship with perpetration or victimization of cyberbullying, as predicted by the Cyberbullying and Online Aggression survey.

I am writing to request your permission to conduct my research in the English I classes on the 9th grade campus of [redacted]. The target age of the participants will be 14-15. The English I classes will be the target population of this study because all first time 9th graders are enrolled in this course. Every 9th grade student will have an equal opportunity to participate in the study if they so choose and if they are granted parental permission.

Participants will be asked to take two surveys during one class period in a computer lab. The first survey is the HEXACO-PI-R, which is made up of 60 statements that define personality. The second survey is the Cyberbullying and Online Aggression survey, which is made up of 20
questions on perpetration and victimization of cyberbullying. The data will be used to identify which personality trait(s) relate the closest to cyberbullying perpetrators and or victims. Students will be presented with informed consent information prior to participating. Each student will also have to sign an assent letter in order to take part in the study. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. You may ask any questions you have now. If you have questions later, you are encouraged to contact Mr. Smith at [xxx]. You may also contact Dr. Paul Tapper, advisor to Mr. Smith, at [xxx] or email at [xxx].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24502 or email at irb@liberty.edu.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to allow the researcher to conduct this study in [xxx].

Printed Name of Superintendent of Cherokee County School District #1

______________________________

Signature: ____________________________________________ Date: ________________

Signature of Investigator: _________________________________ Date: ________________
APPENDIX F:
School Consent Forms

CONSENT TO CONDUCT RESEARCH STUDY

THE RELATIONSHIP BETWEEN HEXACO PERSONALITY TRAITS AND CYBERBULLYING PERPETRATORS AND VICTIMS

Mr. David Smith
Liberty University
Education Department

Your school, specifically the 9th Grade Freshman Academy of [redacted], is invited to be in a research study about personality traits and cyberbullying. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Mr. David Smith, Educational Doctorate Candidate.

Dear Dr. [redacted]

As a graduate student in the Education Department at Liberty University, I am conducting research as part of the requirements for an Ed.D in Curriculum and Instruction. The title of my research project is, “The Relationship between HEXACO Personality Traits and Cyberbullying Perpetrators and Victims.” The purpose of my research is to examine the personality traits of high school freshmen, using the HEXACO personality model and its relationship with perpetration or victimization of cyberbullying, as predicted by the Cyberbullying and Online Aggression survey.

I am writing to request your permission to conduct my research in the English I classes on the 9th grade campus of [redacted] The target age of the participants will be 14-15. The English I classes will be the target population of this study because all first time 9th graders are enrolled in this course. Every 9th grade student will have an equal opportunity to participate in the study if they so choose and if they are granted parental permission.

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Thank you for considering my request. You may ask any questions you have now. If you have questions later, you are encouraged to contact Mr. Smith at [redacted]. You may also contact Dr. Paul Tapper, advisor to Mr. Smith, at [redacted] or email at [redacted].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24502 or email at irb@liberty.edu.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to allow the researcher to conduct this study in Cherokee County School District #1, 9th Grade Freshman Academy of [redacted].

Printed Name of Principal of [redacted]

[Signature] [Date]

Signature of Investigator: [Signature] [Date]
CONSENT TO CONDUCT RESEARCH STUDY

THE RELATIONSHIP BETWEEN HEXACO PERSONALITY TRAITS AND CYBERBULLYING PERPETRATORS AND VICTIMS

Mr. David Smith
Liberty University
Education Department

Your school, specifically the 9th Grade Freshman Academy of [redacted] is invited to be in a research study about personality traits and cyberbullying. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Mr. David Smith, Educational Doctorate Candidate.

Dear Dr. [redacted]

As a graduate student in the Education Department at Liberty University, I am conducting research as part of the requirements for an Ed.D in Curriculum and Instruction. The title of my research project is, “The Relationship between HEXACO Personality Traits and Cyberbullying Perpetrators and Victims.” The purpose of my research is to examine the personality traits of high school freshmen, using the HEXACO personality model and its relationship with perpetration or victimization of cyberbullying, as predicted by the Cyberbullying and Online Aggression survey.

I am writing to request your permission to conduct my research in the English I classes on the 9th grade campus of [redacted] The target age of the participants will be 14-15. The English I classes will be the target population of this study because all first time 9th graders are enrolled in this course. Every 9th grade student will have an equal opportunity to participate in the study if they so choose and if they are granted parental permission.

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Thank you for considering my request. You may ask any questions you have now. If you have questions later, you are encouraged to contact Mr. Smith at [redacted]. You may also contact Dr. Paul Tapper, advisor to Mr. Smith, at [redacted] or email at [redacted].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24502 or email at irb@liberty.edu.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to allow the researcher to conduct this study in [redacted].

[Redacted] 9th Grade Freshman Academy of [redacted].

Printed Name of 9th Grade Principal – Freshman Academy

_________________________________

Signature: ____________________________________________ Date: _______________
APPENDIX G:
HEXACO-PI-R Survey Instrument Permission

HEXACO-PI-R Materials for Researchers

If you want to administer the inventory in pencil and paper form, both the 100-item and the 60-item versions of the HEXACO-PI-R are provided here in several languages. Both of these versions are available in self-report and observer report forms. You can download any of these forms free of charge, but only for the purpose of non-profit academic research. Please contact the authors if you would like to use the inventory for non-academic purposes.

We recommend the 100-item versions for use in most research studies, but the 60-item version is suitable when time is very short. (In undergraduate student samples, nearly all respondents will complete the 100-item version in 20 minutes, or the 60-item version in 12 minutes. Respondents of other samples may require more time.) The items of the 60-item version are a subset of the items of the 100-item version. However, the items of the 60-item version are not simply the first 60 items of the 100-item version. The item numbers are not the same across the two versions.

Please see the translations page for information about additional translations of the HEXACO-PI-R.

There is also a 200-item version of the HEXACO-PI-R that is recommended when longer measures of the facet-level variables (see scoring keys) are required in order to achieve higher internal-consistency reliability. Please contact the authors if this form is required.

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<th>100-Item Version</th>
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<td>100-Item Version</td>
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<td>Observer Report Form</td>
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APPENDIX H:

Cyberbullying and Online Aggression Survey Instrument Permission

From: David Smith
Sent: Thursday, June 12, 2014 3:50 PM
To: Patchin, Justin W.
Subject: Cyberbullying Survey

Dr. Patchin,

My name is David Smith and I am a high school administrator in [redacted]. I am currently working on my dissertation, through Liberty University, where I am examining HEXACO personality traits and their relationship with cyberbullying perpetrators and victims. I am currently in the proposal phase of my work, but am looking to defend it within the next month so that I can move on to the IRB stage. My plans are to have first time 9th grade students take your Cyberbullying and Online Aggression Survey. During my research of cyberbullying, I came across this survey online visiting the CDC website in the document, "Measuring Bullying Victimization, Perpetration, and Bystander Experiences: A Compendium of Assessment Tools." The survey has a copyright date of 2009 and I am inquiring if you have developed a more recent survey? From my research, this survey is the best fit for me because it deals with both perpetration and victimization. I have gained a tremendous amount of knowledge during my research of cyberbullying from your work with Dr. Hinduja. If there is not a more recent survey, would it be alright for me to update some of the current terminology within the questions (e.g. MySpace changing to FaceBook or Friendster changing to Twitter)? My concern is that if the terminology is not current then my data will potentially be skewed. I appreciate any advice or suggestions you may have to offer. I am also looking forward to your future work in the area of cyberbullying.

Sincerely,

David Smith
Hi David,

Thanks for the note and interest in our work. Yes, we do have an updated version (see attached). You are welcome to use it, provided you include proper attribution. Let us know if you have any questions.

All the best with your dissertation,

Justin Patchin

Justin W. Patchin, Ph.D.
Co-director, Cyberbullying Research Center
Professor of Criminal Justice
Department of Political Science
University of Wisconsin-Eau Claire
105 Garfield Avenue
Eau Claire, WI 54702-4004
APPENDIX I:

Title Page of Study

**Personality and Cyberbullying**

Thank you for agreeing to participate in this study. You will be taking two separate surveys. The first survey is called the HEXACO-Personality Inventory – Revised, which is made up of 60 questions. The second survey is called the Cyberbullying and Online Aggression Survey. This survey has a total of 20 questions and is split into two parts: Victimization and Perpetration. Please answer each question with honesty and do not leave any question unanswered. These surveys are for educational purposes only and are completely anonymous. Anonymous means that no one will know that you took this survey or what your answers were to each question. If at any time you want to opt out of this research study, please select the "Exit Survey" button which will be located in the top right corner of every page. **DO NOT** select the "Exit Survey" button at any time if you want to continue the study.

You are now about to begin the survey. After completing the final question on each page, please select the "Continue" button at the bottom of the page. You will select the "STOP" button after you answer the final question of the survey.

To begin the survey please select the "Continue" button.
APPENDIX J:

IRB Permission Letter

LIBERTY UNIVERSITY
INSTITUTIONAL REVIEW BOARD

March 18, 2015

Ronnie David Smith
IRB Approval 2106.031815: The Relationship between HEXACO Personality Traits and Cyberbullying Perpetrators and Victims

Dear David,

We are pleased to inform you that your above study has been approved by the Liberty IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

Fernando Garzon, Psy.D.
Professor, IRB Chair
Counseling

(434) 592-4054

LIBERTY UNIVERSITY

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