10-30-2012

Twenty First Century Cyberbullying Defined: An Analysis of Intent, Repetition, and Emotional Response

Carol Marie Walker
Indiana University of Pennsylvania

TWENTY FIRST CENTURY CYBERBULLYING DEFINED: AN ANALYSIS OF INTENT, REPETITION AND EMOTIONAL RESPONSE

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Philosophy

Carol Marie Walker

Indiana University of Pennsylvania

August 2012

Indiana University of Pennsylvania
School of Graduate Studies and Research
Department of Communications Media

We hereby approve the dissertation of

Carol Marie Walker

Candidate for the degree of Doctor of Philosophy

6/7/2012 Signature on File
Allen Partridge, Ph.D.
Professor of Communications Media, Advisor

6/7/2012 Signature on File
Jay Start, Ph.D.
Professor of Communications Media

6/7/2012 Signature on File
Beth Rajan Sockman, Ph. D.
Professor of Media Comm. & Technology

ACCEPTED

Signature on File
Timothy P. Mack, Ph.D.
Dean
School of Graduate Studies and Research

Title: Twenty First Century Cyberbullying Defined: An Analysis of Intent, Repetition, and Emotional Response

Author: Carol Marie Walker

Dissertation Chair: Dr. Allen Partridge

Dissertation Committee Members: Dr. Jay Start
Dr. Beth Rajan Sockman

The purpose of this study was to analyze the extent and impact that cyberbullying has on the undergraduate college student and provide a current definition for the event. A priori power analysis guided this research to provide an 80 percent probability of detecting a real effect with medium effect size. Adequate research power was essential to create a valid understanding of what traditional undergraduate college students experience when interacting with social media and cellular technology. The 60-item survey (Cronbach's $\alpha = .761$) underwent extensive reliability and validity testing and was distributed via Qualtrics™. A simple random, cross-sectional sample of 438 students, aged 18 to 24, was analyzed using descriptive, correlation, and independent samples *t* tests.

The theoretical foundation was the Social Dominance Theory, utilized to determine the impact of social dominance ordinance (SDO) on the act of cyberbullying. The studies primary purpose was to determine the extent and emotional impact of cyberbullying on participants to formulate a reliable definition for future research. In addition, the influence of the extent of social

media and hand-held technology use and its impact on specific subsections of participants was evaluated.

Findings supported the concern expressed by past researchers regarding the definition of cyberbullying and allowed this researcher to present a more inclusive and decisive definition for future studies. In addition, minimal correlation was noted between the extent of using communication technology and being cyberbullied. Examination of the impact on non-heterosexual participants indicated a higher percentage of cyberbullying for non-heterosexuals for each of the fourteen items queried. Finally, post hoc analysis provided a statistically significant difference in gender and being cyberbullied. From this study, the researcher has gained an in-depth understanding of what the undergraduate college student experiences via technology, as they pursue their educational goals on the college campus.

ACKNOWLEDGEMENTS

This journey could not have been accomplished without the assistance, guidance and support of many individuals. My dissertation Chair, Dr. Allen Partridge, provided valuable insight and guidance. Dr. Jay Start and Dr. Beth Rajan Sockman provided important suggestions to enable me to create a better document. Their time and willingness to serve on my committee is greatly appreciated!

Sincere thanks and respect also are extended to Dr. Christoph Maier, Director of the Applied Research Lab at Indiana University of Pennsylvania, for sharing his time and knowledge as I pursued data that would offer the power necessary to fully understand the extent of cyberbullying on the college campus. Sincere gratitude is extended to Dr. Yavuz Akbulut, of the Anadolu University in Turkey, for sharing his research and providing expert jury validation of my survey. In addition, I would be remiss in not recognizing Dr. James Lenze. Thank you for providing the concept of synthetic writing via concept mapping; it was an invaluable asset when I wrote chapter two.

Dr. Matthew McKeague and Dr. Bradley Wiggins paved the way and provided answers to my questions as I followed their path. Thank you for your willingness to share your knowledge of this experience. To Laurie Grosik and Margaret Stewart, you have been with me over the past year as I have laughed, cried about, and celebrated this process – without support from friends like you this journey would have been far more challenging. Throughout my studies there are many other cohort members who should be acknowledged for their

friendship and support. I hesitate to name them all, for fear of inadvertently omitting one, thank you to all of you!

On a personal level, this manuscript is dedicated to my husband, Bill. Also, my sincere gratitude and deepest love are extended to my son, Justin, for his patience, support, and understanding over the past thirteen years as I pursued this goal. You are the light of my life and my inspiration to achieve – I would be lost without you in my life. My parents, Reta and Donald Derx, provided the foundation from which I have grown, and none of this would be possible without them. I am blessed they are still with me and treasure each moment shared with them. Finally, it is essential that I thank my higher power, whom I call God. This topic is painful, and I have prayed for the strength and knowledge to do it justice – I thank Him for answered prayer.

"Our prime purpose in this life is to help others. And if you can't help them at least don't hurt them." ~ Dalai Lama

DEDICATION

This dissertation is dedicated to my husband, William R. Walker III. His unwavering love and support provided the foundation necessary to build my degree and accomplish this research agenda. The extent of joy felt through sharing this journey with him is not definable in words.

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CHAPTER 1

INTRODUCTION TO THE STUDY

"Technology . . . consists of more than structures and machines alone, more than just 'hardware.' It includes the uses of those structures and machine in the organization, evolution, and sometimes destruction of society" (Segal, 1994, p.2). Historian Howard Segal's suggestion that technology developments are a mixed blessing is indeed profound when one considers the phenomenon of cyberbullying. The plethora of affordable technologies, used by Millennials, enhances the need for exploration into how they are used to bully others.

The Internet brings many advantages to scholars as it augments their ability for research and communication; however, when people are accessible on a 24/7 basis, via cell phones and the World Wide Web, negative scenarios may also arise. An understanding of the impact that cyberbullying has on college students is essential. This research provides an investigation into harassing behaviors based in communication technologies and its emotional impact on college students for the edification of university educators and administrators. In addition, the study evaluates the currently accepted definition of cyberbullying. This will provide educators, counselors, and school administrators the ability to assist students to navigate through cyberspace and other technologies of the 21st Century.

Statement of the Problem

Bullying behavior became the focus of social and psychological research in the late 1970s, with studies led by Dan Olweus (Olweus, 1986, 1991, 1993). Although there is some disagreement on how bullying should be defined, a generalized understanding of two primary forms does exist. A direct format of bullying consists of physical aggression and physical or verbal threats. Relational, or indirect, bullying refers primarily to covert actions such as teasing, exclusion, social rejection, and spreading rumors (Smith & Gross, 2006; Chapel et al., 2006).

Although bullying was once viewed as a rite of passage and customary aspect of childhood, the increased connection to violent and aggressive behaviors has brought it to the forefront of media headlines both nationally and internationally (Burgess et al., 2006). Bullying brings much emotional and psychological impact to its victims. Bully victims report increased emotional and academic difficulties, low self-esteem, and increased risk for depression (Bauman & Del Rio, 2006; Fitzpatrick et al., 2007; Kim et al., 2011). Bullycide and school shootings portray the severity of impact that bullying brings to today's youth (Burgess et al., 2006).

In the 1990s, this problem was clearly illuminated via an FBI report indicating that at least 21 of 27 school shootings investigated where precipitated via bullying (Burgess et al., 2006). The concerns continue to intensify in the 21st Century. In 2007, the Virginia Tech massacre was perpetrated by a young adult

who was “immersed in a bullying dorm that exemplified the course of his childhood experiences of bullying and marginalization” (Twemlow, 2008, p. 128). Sadly, a nineteen-year-old Rutgers University student took his life, in September 2010, following harassment and invasion of privacy via a Webcam (Cloud, 2010).

As technology continues to evolve and become more accessible for today’s youth, the researcher must be aware of the ability for youth to surreptitiously bully others via technology. The plethora of communication technology is obvious when one investigates industry reports.

CTIA, the International Association for the Wireless Telecommunications Industry (2011), indicated that the number of wireless subscribers in United States population has increased from 33.8 million in June 1995 to 302.9 million in December 2010. These users accrue $159.9 billion in annualized total wireless revenues and 21 trillion annualized yearly short message service (SMS) messages. Wireless penetration in United States households is reported at 96%.

Facebook (2012), a social networking site (SNS), has more than 900 million active users with more than 50% of those logging on every day. Chatroulette, launched in November 2009, was reported to have 1.5 million users in March 2010 (Wikipedia). The advent of affordable, user-friendly technology has brought bullying into cyberspace.

Research on cyberbullying has primarily focused on students in their pre-teen and teenage years. Spears, Slee, Owens, and Johnson (2009) interviewed

twenty students aged 12 – 18 in Australian schools. This qualitative research found that students described cyberbullying as "'sounding' verbal*, cruel, vicious, obscene, torturous, powerful*" (p. 192).

The impact of cyberbullying on today's youth is increased due to the anonymous nature that the bully is allowed. In addition, the inability for the bully to see the victims' emotional response decreases the likelihood of guilt on their behalf (Hoff & Mitchell, 2009; Klomek, Sourander, & Gould, 2010; Mason, 2008; Raskauskas & Stoltz, 2007; Slonje & Smith, 2008; Vandesbosch & Cleemput, 2008).

College undergraduates walk a line between the immature behavior of secondary school and their emerging adulthood. While some research indicated that bullying is most severe in middle school and decreased during secondary school (Raskauskas & Stoltz, 2007; Wolak et al., 2007; Williams & Guerra, 2007), it is also evident that the college environment is not immune to cyberbullying (Englander et al., 2009; Finn, 2004; Walker et al., 2010).

Rationale for the Study

The dearth of peer-reviewed research articles investigating cyberbullying on the college campus (Akbulut, Sahin, & Eristi, 2010a), combined with increased emotional impact of cyberbullying that can lead to suicide, lends to the necessity for more research regarding its impact on the college campus. Current research into cyberbullying faces the additional challenge of the lack of a clear and consistent definition. Many authors have utilized the definitions brought

forth for traditional bullying. However, it has not been determined in research if cyberbullying conforms to those definitions (Palfrey, 2008; Spears et al., 2009). For example, with the increased emotional impact of cyberbullying on the victim, does the event need to be "deliberate and repeated?" This research will strive to provide a clear definition.

Need for the study

The abundance of affordable communication technologies, used by Millennials, increases the need for exploration into how they are used to bully others. Students report feeling angry, sad and hurt when cyberbullied. Poor concentration and low school achievement is also a concern (Beran and Li, 2005). Chapell et al. (2006) report on a number of studies that found that most school shooters had been bullied.

In addition, when people can surreptitiously target others with bullying behavior the consequences may be more intense for the victim. The Internet allows individuals to bully others without revealing their identity (Kowalski & Limber, 2007; Patchin & Hinduja, 2006). This may lead to a greater disparity of power between the bully and the victim (Raskauskas & Stoltz, 2005). The ability for people to bully others anonymously prohibits the target from knowing if there are one or several bullies; this brings additional concern to the victim with many people being the potential tormentor (Kowalski & Limber, 2007). These concerns, for the health and safety of today's college students, indicate a need for further research.

Purpose of the Study

The purpose of this study was to gather information regarding the events of technology-based harassment that undergraduate college students experience while at college to further delineate the events of cyberbullying and its emotional impact. The researcher created the survey based on the previous work of Akbulut, Sahin, and Eristi (2010a, 2010b), Willard (2007), and Walker et al. (2011). Willard (2007) classified eight primary methods of cyberbullying to include flaming, harassment, cyberstalking, denigration, masquerade, outing, trickery, and exclusion. Akbulut et al. (2010a), via research based in a Turkish university, provided an in-depth study to create a valid and reliable instrument. However, they also recommended that international researchers modify the list according to cultures and contexts of their environment since "cultural differences in terms of cyberbullying were reported" (p. 1163). The instrument utilized in this research was adapted for the American culture and critiqued by a demographically specific volunteer group from a U.S. college campus.

Theoretical Framework

Social Dominance Theory may be applied to better understand bullying. Social groups are delineated into three qualitatively distinct classifications: *age system*, gender *system* and *arbitrary-set system* and are seen to have access to things of positive and negative social value. Discrimination, that favors dominant groups over subordinate groups, is the primary cause that produces these group-based social hierarchies. It is the ideologies shared by society, or "hierarchy-enhancing myths",

that permit this discrimination (Foels & Reid, 2010; Pratto, Sidanius, & Levin, 2006; Sidanius, Sinclair, & Pratto, 2006; Zakrisson, 2008).

Discrimination by individuals is also prevalent. *Social dominance orientation* (SDO) defines the psychological orientations that delineate dominant and subordinate group relations and inequalities. Although these intergroup processes produce better outcomes for dominants than for subordinates, it is interesting to note that both groups justify their actions and relative positions with hierarchy-enhancing myths (Pratto, Sidanius, & Levin, 2006).

Cyberbullying may be the result of such myths that allow the *gender* and *arbitrary-set systems* to delineate this power struggle. Technology allows this struggle to exist surreptitiously away from the watchful eye of the educator.

Research Question

This investigation was primarily interested in the impact of cyberbullying on the college campus. Events of violence and self-harm, (Cloud, 2010; Twemlow, 2008) the dearth of research, and necessity for increased understanding of the furtive events of harassment impacting college-aged students pursuing an education in the United States drives this research.

Therefore, this study works to define cyberbullying. The instances of relational bullying that college students experience via social media will be evaluated. In addition, a series of hypotheses will be empirically analyzed to determine whether there is a relationship between the frequency of relational bullying via social media and its emotional impact on students. Finally, the relationship between sexual

orientation, gender, extent of Internet usage, or college major and cyberbullying will be evaluated.

Variables

The independent variables (IV) in this study are gender (Caricati, 2007; Foels & Reid, 2010; Pratto et al., 1994, 2006; Schmitt & Wirth, 2009; Sidanius et al., 2006; Zakrisson, 2008), sexual orientation (Bishop & Casida, 2011; Cloud, 2010; Poteat & DiGiovanni, 2010; Misawa, 2010), and college major (Pratto et al., 1994; Sidanius et al., 2006).

Correlation analysis will utilize a contingency coefficient with Independent variables of gender, emotional response, and hours of technology use. Cyberbullying is the dependent variable (DV) (yes/no). The Null hypotheses will be analyzed with a t-test (Gender, sexual orientation, and college major attributes as IV). Amount of cyberbullying is the DV for all analyses.

Limitations

The primary limitation of this research was the ability to generalize or infer to a greater population beyond the sample, due to the cross-sectional sampling in one university. Utilizing power analysis, the researcher can establish the proper sample size to eliminate concerns regarding type one error (sample too large) and yet achieve a large enough sample to enable the researcher to discuss events in the context of a broader population.

In addition, this research is limited to the ability and willingness of college students to complete the survey in an open manner. The questionnaire was distributed

using Qualtrics™. It is possible, though not likely, that participants may not have been the original recipients of the email inviting participation in the survey.

Definition of Terms

Cyberbullying

Although the term *cyberbullying* was not utilized for the majority of the data gathered to prevent participant self-selection bias (Akbulut & Eristi, 2011; Juvonen & Gross, 2008), it was provided for the final question in the survey. At that time, the definition of Walker, Sockman, and Koehn (2011) was provided and defined cyberbullying as:

> The use of interactive technologies such as social networking sites, cell phones (text, video, voice, or picture messaging), instant messaging, or other newly developed technology-based communication tools. These tools are used to deliberately and repeatedly deliver slanderous, harassing, obsessive, or obscene messages that *result* in harm to the recipient" (p. 37).

Aricak (2009) delineated bullying in four forms: "*pure-bully*" a perpetrator of cyberbullying who has never been bullied, "*bully-victims*" or those who are both perpetrators and have been cyberbullied, "*pure-victims*" have only been cyberbullied, and "*non-bully victims*" who have never perpetrated nor experienced cyberbullying. *Bullycide* is the act of suicide due to bullying.

The questionnaire utilized was created based on the concepts that Willard (2007) established as factors in cyberbullying. They are defined as *flaming* (angry or rude messages), *harassment* (recurring offensive messages), *cyberstalking* (threats of harm or intimidation), *denigration* (harmful, false, or cruel statements), *masquerade*

(pretending to be someone else to make that person look bad), *outing* (sharing others' private information), *trickery* (tricks to solicit embarrassing information), and *exclusion* (intentional exclusion for an online group) (Akbulut & Eristi, 2011, p. 1155).

The use of s*ocial media* will be queried via this research. It is defined as Internet-based communication media such as Facebook, Twitter, Four Square, email, AIM, Skype, iChat, ooVoo, Chatroulette, etc. and cell phones utilized for texting, sexting, picture or voice messaging.

Social Dominance Theory

The Social Dominance Theory (SDT) (Pratto et al., 1994) provided the theoretical basis for this investigation of cyberbullying on the college campus. Various terms were utilized and are defined as follows.

Social dominance recognizes three distinct groups: *Arbitrary-set* are groups that have been established via subjective bases (not linked to human-life cycle) that enable a disparity of access to things of negative and positive social importance, often those meaningfully related to social influence. *Gender-set* specifies that men have disproportionate social, political and military authority compared to women. Finally, the *age-set* specifies that adults have increased social power over children (Pratto et al., 2006).

Social dominance orientation (SDO) is the individual-difference factor that provides the influence to determine the extent that one desires their in-group to dominate and be superior to the out-group. This generalized attitude towards group relations indicates the extent to which an individual prefers the relations

between groups to be equal or for one to dominate the other. Thus, higher levels of SDO lead to the desire to maintain or increase social inequalities (Pratto et al., 1994).

Hierarchy-enhancing myths, also referred to in literature as *legitimizing myths*, are defined as socio-culturally shared beliefs that provide moral and cognitive validation for group-based repression that maintains social inequality (Pratto et al., 2006; Zakrisson, 2008).

Hierarchy-enhancing majors (HE-Majors), *hierarchy-attenuating majors* (HA-Majors), and *middlers* will be analyzed regarding their influence on cyberbullying. HE-Majors are areas of study in which students tested with higher SDO such as accounting, business administration, business economics, business management, business, economics, marketing and pre-economics. HE-Majors are seen to promote and support social inequality. HA-Majors are those that study areas of social work, public health, sociology, women's studies, special education, anthropology and counseling. Specific areas of study such as African languages, African studies, Jewish studies, Latin American studies, and Asian studies are also included. Individuals in HA-Majors work to support social equality and score lower than both HE-Majors and *middlers* in their SDO. *Middlers* are those in professional studies, for areas such as science or math. They do not obviously attenuate or enhance social inequality (Pratto et al., 1994; Sidanius et al., 2006).

Cognitive complexity addresses the multidimensional mental descriptions of the social world. Increased complexity of such representations is considered

to result from the need for control, as it is the central motivation for understanding the social world. Lacking control leads to individuals more in-depth coding of social information with a more accurate recall of events (Foels & Reid, 2010).

Defining the Population

This study focuses on the defining and delineating the events of bullying that occur via social media on the college campus. For that reason, the researcher will focus specifically on traditional college-aged respondents. The population will be limited to individuals between the ages of 18 and 24, who are currently undergraduate college students in the United States. All other participants will be considered mortalities and removed from the data analysis.

Significance to the Field of Communications

The benefits of this study will be in an increased awareness of what the level of cyberbullying that the undergraduate college student may experience and its emotional impact. In addition, the development of an accurate definition, specific to the event of bullying via social media, will enhance and support future studies that investigate cyberbullying experienced by today's youth and young adults. The increased emotional impact of cyberbullying, and resulting violence that it can precipitate, enhances the necessity for the information to be gathered, analyzed and disseminated to all those who work with young adults on the college campus (Beran & Li, 2005; Chapell et al., 2006).

Organization of the Study

The remaining chapters are as follows. Chapter two, the literature review, examines the events of bullying and cyberbullying. Bullying predates the Internet and has had an impact on youth for decades. Articles discussed will provide an overview of the impact of gender and homophobia and the emotional upset that individual's experience. A brief evaluation of the impact of the proliferation of Internet based social media and cell phone technology will lead to the discussion of cyberbullying. An overview of the impact of bullying via technology on teenagers will conclude with a thorough evaluation of the research that addresses cyberbullying and the college student. Theoretical perspective of SDT is also discussed.

Chapter three outlines the research design utilized during this study. An overview of the problems and purposes will include the research questions and hypotheses. The population and sampling techniques will also be discussed. A description of the research instrument (*Appendix A)* and steps utilized to create the instrument are provided. A discussion of the method of data collection and data analysis will close the chapter.

Chapters four and five provide findings and discussion. Chapter four contains the tables and data delineating the research results. Chapter five presents the interpretation of results, discussion, limitations and recommendations for future research.

CHAPTER 2

EVALUATION OF LITERATURE

Introduction

Read the newspaper, watch the news, or explore the Internet; news of the impact that cyberbullying has on today's youth is evident. Whether in small town schools or on large city campuses, students are susceptible to the unrelenting attacks of peers and strangers that may change the course of their lives. It is therefore essential to further evaluate the events of cyberbullying.

Many researchers have focused on the middle and high school levels of education to evaluate the technology-based harassment that individuals' experience. In a certain light, that makes sense. The common logic, disseminated throughout history, presented and understanding that "meanness" is more prevalent in middle school, diminishes in high school as people age and mature, and then following high school such events are sophomoric and no longer a concern. Research has indicated that this is no longer true. The advent of Internet-based Anonymity and 24/7 connectivity has taken bullying into the college environment (Akbulut & Eristi, 2011; Walker, Sockman, & Koehn, 2011).

This research, though conducted as requirement for a doctoral degree, is also a passionate concern of the researcher. As a parent and educator, it is essential to create a better understanding of the events college students are experiencing as they move away from the comforts of home and onto the college campus. Other researchers have indicated that current definitions of

cyberbullying are inadequate and obscure in providing a true understanding (Abbott, 2011; Vandebosch & Van Cleemput, 2008). The author concurs, and therefore the primary focus of this research is to create a knowledge base that allows for a clear and concise definition of the events. This will evolve via an analysis of the covert actions and impact of flaming, harassment, cyberstalking, denigration, masquerade, outing, trickery, and exclusion that are perpetrated (Willard, 2007). To better understand the events, analysis will evaluate the various aspects that may instigate cyberbullying events such as gender, college major, sexual orientation, and time/hours of Internet usage.

To provide a comprehensive understanding of the events of cyberbullying that impact 21st Century young adults and college students in the United States, this chapter will evaluate literature associated with five main areas: (1) bullying, (2) the Internet and cyberbullying defined, (3) cyberbullying and the teenager, (4) cyberbullying and the undergraduate college student, and (5) the theoretical basis of analysis, Social Dominance Theory.

Traditional Face-to-Face Bullying

Historically considered an inherent part of childhood the verbiage "Sticks and stones can break my bones, but words may never hurt me" was often provided as the logic for youth to deal with the mean events of childhood harassment. It was not until the late 1960s and early 1970s that research into the aggressive behavior of bullying began, in Scandinavia. Bullying behavior was termed "*mobbing*" (Norway, Denmark) or "*mobbning*" (Sweden, Finland) and

Dan Olweus was the first to apply empirical research to better understand the phenomenon (Olweus, 1993, p. 8).

Bullying Defined

Utilizing the concept of mobbing, bullying was defined by Olweus, as "*A student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more students."* To further understand the term, "negative actions" are delineated as the aggressive behavior of intentionally inflicting or trying to inflict "injury or discomfort upon another" such as "teasing, name calling, threatening, and taunting" or physical actions such as hitting, pushing, or restraining others. Finally, non-physical actions without the use of words are also considered. The used of "making faces or dirty gestures, intentional exclusion from a group, or refusing to comply with another's wishes" were also found to be bullying behavior. An imbalance of power, where one student does not have the same "physical or psychological" strength as another must also be present, whereas, the weaker student has trouble defending herself (Olweus, 1986, 1991, as stated in Olweus, 1993, p. 9).

In 1982, the suicide of three Norwegian boys, due to bullying, instigated a nationwide research project by the ministry of education in Norway. From there bullying research spread to the United States and other countries in the 1980s and 90s. Throughout this research, there has been disagreement on how bullying should be defined and various definitions have come forth. A general understanding of two main forms of bullying is accepted. Relational or indirect

bullying consists of the non-physical and often indirect actions of teasing, social isolation and intentional exclusion. Direct bullying is that of the physical or verbal attack of one individual against another (Olweus, 1993). Three features have become standard components of bullying definitions used in research and include events that inflict harm or fear on the victim, repeated aggression against an individual that does not provoke the bullying behavior due to a real or perceived difference in power, and events that typically occur within familiar social circles (Burgess, Garbarino, & Carlson, 2006).

The connections between the bullying actions of youth that have resulted in serious injury, suicidal ideation, and the suicide death of many individuals has moved bullying from the normative behavior of youth into the spotlight of media headlines, both nationally and internationally, as adults work to understand the events and assist the victims (Bauman & DelRio, 2006; Burgess, et al., 2006). Research evaluating gender, homicide and suicide, homophobia, and the emotional impact of bullying will be discussed.

Bullying and Gender

Social Dominance theory, the theoretical basis for this research, indicated differences in the levels of social dominance orientation in correlation to gender (Pratto, Sidanius, Stallworth, & Malle, 1994). Throughout research, several studies have considered the differences in bullying behaviors between males and females.

San Antonio and Salzfass (2007) surveyed 7th and 8th grade youth to analyze bullying variances between big city, rural, and small city schools (data gathered Spring 2006) to find that 72% of respondents had experienced relational bullying. Gender impact was specified in the type of bullying, with boys often bullying girls with debasing comments regarding their appearance and demands for sexual interactions, often involving oral sex. Other researchers have found that high school boys were more likely to bully via overt, direct bullying, while girls were significantly higher in relational bullying. (Fitzpatrick, Dulin, & Piko, 2007; Griffin-Smith & Gross, 2006).

To better understand the impact of bullying on the college level, Chapell et al. (2004) queried 1,025 undergraduate students. Results indicated that almost 25% of students had experienced bullying at least once or twice with 1.1% having occurred very frequently. In addition, males reported being a bully more frequently than females. Chapell et al. (2006) found a positive correlation between being a bully in elementary school, high school, and college. Interestingly, the role of those being bullied continued into college, with almost three-quarters of those bullied in college also reported being the victim of bullying in elementary school and high school.

Bullying and Homicide or Suicide

The increased frequency of school shootings and reports of self-harm by those being bullied lends one to evaluate the connection between bullying and these extreme reactions. The history of school shootings dates back to 1974,

when a student, who was setting fires in the school, resorted to violence and shot school custodian who discovered his actions. In 1982, a 17 year-old student shot and killed his English teacher based on the concern that she was trying to commit him to a mental institution. In 1997 a fourteen-year-old boy, Michael Carneal, brought a shotgun to school to regain his reputation with force, and several students were killed (Burgess et al., 2006).

Noted to be primarily a middle class event, the lethal violence of school shootings and suicide brings great concern to adults as they try to formulate an understanding of what precipitated the events (Twemlow, 2008). Numerous studies indicate that most school shooters had been bullied (Burgess et al., 2006; Chapell et al., 2006). Often times, school violence followed instances of ostracism and romantic rejection. Leary, Kowalski, Smith, and Phillips (2003) found that bullying events of this nature instigated 14 of 15 school shootings.

Serious suicide attempts are frequently precipitated with interpersonal or relationship disputes (Beautrais, 2000). Sadly, this situation hit much too close to home with the recent attempt of suicide by a family friend. Four girls had repeatedly and viciously bullied Alexa, a student in the New Hampshire school district, in her school and via technology. Ultimately, Alexa attempted suicide on September 29, 2011. This event indicated, yet again, the serious nature of bullying for today's youth. The drastic rise of suicide rates for young people have placed them as the group with the highest risk in one-third of all countries. Klomek, Sourander, and Gould (2010) provided a literature review of

31 empirical studies, which evaluated both cross-sectional and longitudinal research articles and found that bully-victims are repeatedly reported to exhibit high levels of suicidal ideation.

Bullying and Sexual Orientation

As our society becomes more open to individual differences in sexual orientation, the unfortunate aspect of harassment and lack of understanding is bound to occur. Sexual minority students, described by Bishop and Casida (2011) as "most often gay, lesbian or bisexual, but including anyone who does not or is perceived to not fit the common heterosexual stereotype," (p. 134) are frequently bullied in United States schools with humiliating words such "fag, queer, dyke, homo, and gay" being heard by 51% of on a daily basis (p. 135).

Homophobia was the primary factor of such harassment. San Antonio and Salzfass (2007) found that in the incidences of relational bullying reported in their research, the second most common reason stated was from students perceived as being gay. When surveyed, 74% of individuals (N = 713) perceived their college campus as homophobic (Rankin, 2005).

Qualitative research conducted by Taulke-Johnson (2008) and Misawa (2010) uncovered contradictory results. Taulke-Johnson interviewed six undergraduate men in their final year of studies. Participants reported minimal instances of homophobic behavior or harassment by others due to their sexual orientation. Misawa's study was quite limited, with two "gay men of color" (p. 16), who felt they experienced offensive and threatening incidents of

homophobia as college students. One note of interest may be the location of research. Taulke-Johnson's research was in the United Kingdom, and Misawa gathered data from college students in the southeastern United States.

Bullying and the Emotional Impact of Victims

The choice of three young men to take their lives due to bullying was the impetus for the seminal research of Olweus (1999). Suicidal ideation has brought young adults into the highest risk categories in one-third of countries. But what of the others who are bullied and do not reach that level of despair? One must also consider the other impacts of bullying on adolescents and young adults.

Kim, Catalano, Haggerty, and Abbott (2011) conducted a longitudinal study of 957 young people in the Pacific Northwest who had participated in the Raising Healthy Children project. Participants were recruited, in 1993 – 1994, from first and second grades in 10 suburban public elementary schools. Data was collected annually each spring and was used to determine if bullying in the fifth grade would predict problem behaviors at age 21. Seventy-eight percent of participants had reported being involved in bullying acts, "at least once in the last year," during their 5th grade experience. When surveyed again at age 21, 33% of those involved in bullying in 5th grade reported being involved with violence, over 67% reported drinking heavily at least once, and 42% reported using pot at least once. Other cross sectional research indicated that students who have been bullied experienced poor grades, increased high school dropout

rates, poor psychological adjustments, physical problems associated with stress, and low self-esteem (Bauman & Del Rio, 2006; Bishop & Casida, 2011; Olweus, 1999).

The Impact of Technology

When considering the evolution of the Internet and the "always on" ability that cell phones and computers bring to young adults in the twenty-first century, it is important to evaluate the impact this connectivity has had on young adults. Individuals use the Internet to communicate with people they know or with those unknown to them. This has led to problems with bullying that have grown and morphed in the last decade to allow bullies to intensify attacks in this 24/7 "always on" generation (Abbott, 2011; Gross, 2009; Kowalski, Limber & Agatston, 2008).

Thus a new definition and understanding of the events of relational bullying, now perpetrated via the anonymous environment of the Internet, must be assessed. As Olweus defined bullying in the last several decades of the 20th century, so must researchers today work to define the new form of aggression, cyberbullying, to protect this generation of youth from further harm.

The Current Understanding of Cyberbullying

A comprehensive literature review of cyberbullying research, focused on adolescents and young adults, revealed that there is little agreement regarding the wording and incidents that qualify as a bullying event propagated via technology.

Most researchers have merely expanded Olweus' definition to include technology (Leenaars & Rinalid, 2010; Burnham, Wright, & Houser, 2011; Wright, Burnham, Inham, & Ogorchock, 2009). Li (2006) considered cyberbullying to be a "bullying problem occurring in new territory" (p. 166). Slonje and Smith (2008) expanded Olweus' concept of bullying to define cyberbullying as aggression that utilized modern technology specifically the World Wide Web and cell phones.

Spears. Slee, Owens, and Johnson (2009) expressed concern regarding the definition of cyberbullying via their qualitative research with twenty students (aged 12 – 18) and six school counselors in Australia. The authors acknowledged the repetitive nature of Olweus' definition of bullying as having "common agreement" (p. 153) amongst researchers, yet questioned what the actual concept of repetition, a requirement in Olweus' definition, involved in the new atmosphere of cyberspace. Students interviewed considered cyberbullying to be something via technology that was used to intimidate or put down another. They described cyberbullying based on its emotional impact with it "sounding cruel, vicious, obscene, torturous, powerful and even silent" (p. 192). Those cyberbullied stated it "felt unnerving, demeaning, inescapable, unsafe, vulnerable, and trapped within a huge power imbalance" (192 – 193). Repetition was implied via plural responses but not specifically indicated as a necessity to inflict pain.

Other researchers moved away from Olweus and conducted research based on various definitions including the concepts of harmful or cruel events to provide the different conceptualizations and create a common language (Abbott, 2011; Vandebosch & Van Cleemput, 2008). Willard (2007) considered it to be the transmission of "cruel" text or pictures via technology (p.1). Terms such as aggressive, intentional, repetitive, willful and repeated, defamatory, and hostile are frequently utilized by those researchers working to understand the impact of negative communications via technology (Englander, Mills, McCoy, 2009; Hoff & Mitchell, 2009; Johnson, 2011; Smith et al., 2008).

Despite the terminology, the Internet and proliferation of technological contact that Millennials have access to has changed the face of communication in the 21st Century. The ability for any individual to create and publish information via user-generated content providers such as YouTube, Facebook, Google+, True Blab, Chatroulette, and the myriad of other Web 2.0 programs that are exponentially growing every day has led to an environment of "information exposure" in which individuals disseminate vast amounts of personal and confidential information, that often is damaging and incriminating, to the world via the web (Englander et al., 2009, p. 216).

The increased negative emotional impact that victims have reported due to the anonymity that the Internet provides, lends Hoff and Mitchell (2009) to consider cyberbullying to be more than a modern form of an old event but more akin to victimization with an intent to "terrorize and assert dominance" (p. 659).

The reported extent of cyberbullying victims varies greatly in percentages, despite similarities in other demographics such as age, location, and gender. These varying results have increased the necessity for an operational definition for cyberbullying that will be universally accepted and provide more standardized reporting from victims and bullies alike (Abbott, 2011; Vandebosch & Van Cleemput, 2008).

Cyberbullying and the Teenager

While technology augments the ability to connect socially with others, it also has provided the bully an outlet to harass victims remotely and has eliminated the safe-haven that individuals found in their homes. The advent of student participation in 24/7 communications may increase the emotional impact it has on the individual with potential violence as the chosen recourse. This is accentuated when the victim is unable to determine who is perpetrating the harassment. In addition, the school-age cyberbully unable to see the emotional pain of the victim due to the distance technology provides, may not fully realize the harm they have caused.

The ability for frequent harassment of youth via technology may lead to more emotional upset and violence in our nation's schools. Unlike traditional bullying, the cyberbully has access to their victim at any time, thus eliminating the person's ability to seek solace at home away from the bully (Burnham et al., 2011; Gross, 2009; Kowalski & Limber, 2007; Raskauskas & Stoltz, 2007). Ybarra, Diener-West, and Leaf (2007) found that cyberbullying that occurred

twelve or more times a year may result in increased behavior problems for students, with one in five respondents stating they brought a weapon to school within the month prior to the survey. In a survey of 1,454 twelve to seventeen-year-old individuals, Juvonen & Gross's (2008) research indicated that 19 percent of the respondents had been cyberbullied seven or more times in the past year.

When people can surreptitiously target others with bullying behavior the consequences may be more intense for the victim. The Internet allows individuals to bully others without revealing their identity (Kowalski & Limber, 2007; Patchin & Hinduja, 2006). When an individual does not know who is perpetrating the harassment, this may lead to a greater disparity of power between the bully and the victim. The ability for people to bully others anonymously prohibits the target from knowing if there are one or several bullies. This brings additional concern to the victim with many people being the potential tormentor (Klomek et al., 2010; Kowalski & Limber, 2007; Raskauskas & Stoltz, 2005).

Slonje and Smith (2008) surveyed 360 students, in Sweden. One student considered cyberbullying to be "extremely immature and a sign of lacking respect for people's equal worth and freedom" (p. 150). However another felt that the ability "get to someone anonymously" increased the concern that it would become "more and more common" (p. 151). It is this ability to remain anonymous that empowered some bullies that may not have harassed others in

a face-to-face environment (Vandesbosch & Cleemput, 2008). The ability to bully without feeling or seeing the emotional impact that the harassment brings to the victim prevents the bully from knowing if they have gone too far. When using technology, the cyberbully may feel that their bullying behavior is in jest. Inability to see the victim's emotional response may allow them to continue this misperception of their actions (Kowalski & Limber, 2007; Raskauskas, 2007).

The use of cyber-tools to perpetrate bullying behavior increased the potential emotional impact on the victim and may inhibit the bully from the reality of pain their actions are causing. The advent of email, text messaging and other instant-response technologies that allowed messages to be sent without personal contact buffered the bully from concern about their actions (Kowalski & Limber, 2007; Raskauskas & Stoltz, 2007; Vandebosch & Cleemput, 2008).

The use of camera phone technology has led to increased concerns for victims with pictures, taken in more personal settings, being disseminated quickly via the Internet or picture messaging (Kowalski & Limber, 2007). Slonje and Smith (2008) found that an image disseminated on the Internet had the highest emotional impact on its victims. As youth become savvier with the use of technology, the webcam must also be considered a source of concern. Juvonen and Gross (2008) found it to present the highest risk among the eight tools they queried (E-mail, Instant Messaging, Profile sites, blogs, cell phone text messaging, chat rooms, and message boards).

As with the suicides of bully victims in 1982, cyberbullying too has taken on a heightened level of attention and concern from the media as young adults take their lives after being harassed or victimized via technology. Media stories resonate with brokenhearted family members struggling to understand why their loved ones are no longer with them, all too often frustrated due to the lack of action taken by school and local officials as they tried to end the harassment their children experienced (McNeil, Herbst, Hamashige, Mascia, & Jessen, 2010). Additional research to bring a deeper understanding of the events of cyberbullying in the educational arena may strengthen the administrations ability to address issues and assist students.

Hay, Meldrum, & Mann (2010) investigated the impact of bullying and cyberbullying behaviors from the foundation of Agnew's general strain theory. The researchers found higher levels of the internalizing deviance (self-harm) and suicidal ideation for all respondents. The emotional strain of surreptitious attacks combined with the daily struggles and feelings of hopelessness that young adults experience as they try to understand life may lead to youth suicide (Hinduja & Patchin, 2010).

Implications of Gender and Culture

As our world is made smaller with technological advancements, a better understanding of the affect that gender and culture have on teenage bullying via technology is essential. Study results vary regarding the amount of impact that cyberbullying has on the school environment, but it is clear that bullying via

technology is a multi-cultural concern (Li, 2006). Interestingly, when bullying was evaluated by gender, reports indicated a disparity in the impact and trepidation that boys and girls, between the ages of 12 to 15, felt about the harassing behaviors.

Research results indicated that cyberbullying has become a global concern, and additional research is essential to establish an understanding of the impact cyberbullying has on K – 12 students. Juvonen and Gross (2008) found that 72 percent of youth surveyed reported being cyberbullied at least once in the past year and that youth who are bullied in school face a much higher probability of being cyberbullied. Ybarra, Diener-West, and Leaf (2007) disputed this finding with survey results that indicated 64 percent of those bullied on-line were not being harassed in school (N = 1,500 between ages of 10 – 17 years). In a cross-cultural comparison, Li (2008) found that 25 percent of the Canadian subjects surveyed (157, 12 – 15 year-old middle school students) and 60 percent of Chinese students (202, 11 – 14 years-old) reported being cyberbullied. Additionally, White and Hispanic youth in America were most likely to frequently use the Internet to harass others (Ybarra & Mitchell, 2007a).

As youth enter middle and high school, there are differences in the level of concern and acknowledgement of technology-based bullying behaviors between boys and girls. When evaluating age and gender, research indicated that bullying and victimization are higher in the middle school than in high school (Raskauskas, 2007; Williams & Guerra, 2007). Although the covert style of

female bullying is often less evident, a majority of girls view cyberbullying as a concern and are more likely than boys to report occurrences (Agatston, Kowalski, & Limber, 2007; Dilmac, 2009; Li, 2005; Li, 2006; Wolak, Mitchell, & Finkelhor, 2007). Whereas, male youth are more likely to be involved in overt cyberbullying behaviors and less likely to view the behavior as problematic (Agatston, Kowalski, & Limber, 2007; Dilmac, 2009; Li, 2005; Raskauskas & Stoltz, 2007; Ybarra & Mitchell, 2007a). In focus group discussions, Smith et al. (2008) found that girls were more likely to be cyberbullied, due to the difference in how males and females address conflict, one participants stated: "girls hold grudges for longer, boys deal with it there and then and get it over with" (p. 380).

Sengupta and Chaudhuri (2011) researched the impact of social networking sites (SNS). The researchers analyzed data from the Pew Internet American Life Online Teen Survey (data gathered in 2006) with informative results. Twenty-five percent of respondents had been cyberbullied. When queried regarding the use of SNS, results indicated that teenage girls were 63% more likely to set up a site. This led to girls being 250% more likely to be harassed online than boys, with that percentage rising to 300 for girls who used SNS as a forum for flirting. Children who needed affiliation or inclusion, that was not found at home or in school, turned to the Internet for friendship and the feeling of being included (Solberg, Olweus, & Endresen, 2007).

Emotions play a large part in understanding the events of cyberbullying, and an individual's need to feel included or powerful clearly impacted their experience on the Internet. When evaluating the personality aspects of the bully, it was evident that children who were raised in abusive or neglectful homes were more likely to bully others (Crothers & Kolbert, 2008; Dilmac, 2009). Additionally, the cyberbully presented higher levels of aggression. Their need to feel dominant may have led to bullying behavior via the Internet (Beran & Li, 2005; Dilmac, 2009; Patchin & Hinduja, 2006; Raskauskas & Stoltz, 2007).

Konig, Gollwitzer, and Steffgen (2010) used an online survey and evaluated the use of cyberbullying as an act of revenge. Of the 473 teenaged respondents, over 79% were classified as cyberbullies. Of those, 31% reported being victims of traditional bullying within the past six months. Revenge was frequently the reason for cyberbullying (Hinduja & Patchin, 2009; Ybarra & Mitchell, 2004).

Cyberbullying on the College Campus

The brief overview of bullying and cyberbullying of teenagers provides the basis for the primary focus of this dissertation research project: the impact of technology on the undergraduate college student. When young adults leave their homes and enter college, they do so with mixed emotions of trepidation and excitement. Venturing onto the college campus with great expectations of good things to come may leave them vulnerable to the unexpected negativity that Internet and cell phone harassment can generate. Although many may consider

the sophomoric actions of cyberbullying left behind with high school days, Chapell et al. (2006) found that over half of respondents who admitted to being bullies in high school also bullied others at college.

Although there is a strong body of empirical literature addressing bullying and a growing amount of research to understand the impact of cyberbullying on teenagers, research on the college level remains limited (Coleyshaw, 2010). An intensive search of EBSCO, Academic One File, 360 Search, U.S. Catalog of Government Publications, and Proquest dissertation and theses provided less than twenty articles for review. In addition, this researcher can substantiate the concerns of Coleyshaw (2010) who stated that "any attempt to apply theory to student-to-student bullying in the university context has, as yet, not been afforded a significant level of attention" (p. 378). Of the articles reviewed, only two provided a theoretical foundation for analysis of data (Akbulut & Eristi, 2011; Walker, Sockman, & Koehn, 2011).

To provide a solid foundation, this section will begin with an evaluation of the empirical research articles available. The ability to present the sample and methodology while also discussing the definition utilized in their exploration of the harassing events young adults encounter will bestow a comprehensive understanding of the research to date and the necessity for additional investigation. Articles will be reviewed in alphabetical order.

Cyberbullying Research to Date

Often researchers will select a specific sample within a population to investigate. Abbott (2011) chose that mode while preparing a dissertation in partial fulfillment of a Doctor of Psychology degree. A desire to understand the cyberbullying experienced by ethnic minorities led the researcher to query 137 individuals. Participants who self-identified as Caucasian or European American were considered mortalities and 117 surveys were included in the final analysis.

The researcher indicated that both online and offline survey completion was achieved by recruiting people on the campus of the University of La Verne. Online participants were recruited using an online resource for students to participate as an academic requirement and via *Facebook*. Minimal details were provided regarding the demographics for participants. The mean age was 20.4 years (no SD provided) and 73% had completed "some college" (p. 69). There were four ethnicities identified with 64% as Latino/Hispanic, 25% Asian/Asian American, 9% African American, 3% Native American, and 7% of participants were biracial.

The survey instrument utilized was developed by the researcher based on the constructs of Kowalski, Limber, and Agatston (2008) and Willard (2007) and queried participants on "flaming, harassment, griefing, cyberstalking, denigration, impersonation, outing/trickery, and exclusion" (p. 71). The survey did not limit the experience to adulthood or college, it asked if participants "ever had been or ever had experienced" the events provided. Many respondents

included an incident remembered from high school. Cyberbullying was defined as:

> Bullying that occurs via the internet [sic] or other electronic methods of communication. This may include: email, instant messages, chat rooms, on message boards, on a website, in an online game, or through text messages, pictures or images sent to a cellular phone (p. 168).

The results were interesting with 27% who knew someone who had been a victim of cyberbullying, 18% knew someone who had cyberbullied others, 19% were victims of cyberbullying, and 7% were cyberbullies. However, when individual questions were asked regarding the general concepts, such as flaming, griefing, etc, that fit the *definition of cyberbullying* in the literature review the results ranged from 65% (flaming) to 13% (outing/trickery).

Akbulut and Eristi (2011) examined the victimization among college students in Turkey. In an effort to access students who were likely to replicate those of teaching professionals only third year students were included, ranging in age from 18 to 23 years. Thirty-three percent (N=254) of the junior class voluntarily completed the 56 question survey instrument that included items addressing both bullying and victimisation.

Similar to Abbott (2011), Akbulut and Eristi's survey also worked to establish instances of "flaming, harassment, cyberstalking, denigration, masquerade, exclusion, outing and trickery" (p. 1160). The authors avoided the

term ‘cyberbullying’ to prevent a self-selection bias. They supported this choice with research from Juvonen and Gross (2008).

The results for cyberbullying indicated being blocked in instant messaging at the highest percentage (42.8%), with the use of social applications for gossiping or inappropriate chats at 34.7%. Exclusion from online groups (25%) and hiding identities (21.6%) were the least reported. Interestingly, a significant relationship was noted between being a bully and being a victim in cyberspace with 25 of the 28 instances queried.

Prior to the research in 2011, Akbulut worked with Sahin and Eristi (2010b) to develop a scale to investigate cybervictimization experienced by “online social utility members” (p. 167). Individuals were recruited via a Turkish online social utility; of the 896 respondents, 45.2% were college students. The researchers used the same qualifiers as in the 2011 study to determine instances of cyberbullying (flaming etc.) and the term ‘cyberbullying’ was excluded to prevent self-selection bias. A two-step study procedure was utilized to confirm the inclusion of instances of cyberbullying in the survey instrument. This resulted in a high internal consistency coefficient ($\alpha = .97$). Much of these data were utilized to create the survey for this current research project.

Akbulut, Sahin, and Eristi (2010a) began their inquiry into the instances of online victimization via an analysis of data, gathered in February 2009, from 1,470 individuals (Mean age = 23). A survey was linked to a “popular social network application in Turkey” (p. 195) for one week and participants were

given credits to be used in the application. The researchers did not use the term 'cyberbullying' to reduce selection bias and found that 56% of respondents reported experiencing at least one case of victimization.

The highest incidents reported were cursing in instant messaging programs (56%), masquerading (53%), receiving harassing e-mails/instant messaging (52%). It is here, that the cultural differences may be indicated, as it is hard to conceive of Americans of the same age group considering swearing via the Internet as victimization. There were significant relationships noted in socioeconomic status, frequency of use of the Internet, and for time of use (night use reported more problems than afternoon or evenings).

Turkish research was conducted by Aricak (2009) to evaluate the psychiatric symptomatology of university students whom experienced harassing behavior via the Internet. Aricak gathered data from 695 undergraduate students (M_{age} = 19.34, SD = 1.19) in the Education department at Selcuk University, from October to December 2007. Two instruments were utilized, a cyberbullying questionnaire (queried "have you ever," not specified to college experience) and the Symptom Check List-90-Revised (SCL90), used to evaluate psychological symptom patterns such as obsessive-compulsive, depression, anxiety, hostility, etc.

Findings indicated 19.7% of respondents having cyberbullied at least one time and 54.4% were a victim of cyberbullying "at least once in their lifetime" (p. 171). A significant positive correlation was indicated in hostility and

psychoticism in relation to being a cyberbully. The analysis between interpersonal sensitivity and psychoticism related to being exposed to cyberbullying resulted in a significant negative correlation. Those who reported more interpersonal sensitivity were less likely to be exposed to cyberbullying.

Concern "prompted by shock at the Clementi suicide and the increasing reports of incidents on college campuses" motivated the research of Baldasare, Bauman, Goldman, and Robie (p. 130, 2012) which provided qualitative data regarding students understanding of the phenomenon of cyberbullying. The authors utilized a grounded theory approach to analyze information provided by 30 undergraduate college students (M_{age} = 20.47, SD = 2.3) to uncover major themes of student understanding of the events of cyberbullying.

Findings indicated that participants were divided in the concept of intent with cyberbullying. "Many participants" (p. 136, please note, no *n* provided) indicated that harm may occur unintentionally when a receiver is hurt via messages sent with technology and therefore, intent and repetition should be present to indicate cyberbullying. However, "more participants" (Baldasare et al., 2012, p. 137) replied that the receiver's interpretation of the event was the defining factor with one student stating, "I think maybe the definition needs to capture, like, really emphasize the way the recipient feels, not necessarily the way the person intended it" (Baldasare et al., 2012, p. 137). In addition, participants considered the ability to post anonymously as a factor in cyberbullying, noting that the lack of face-to-face interaction removed the

personal factor, “It’s almost like bullying a machine, so it doesn’t matter” (Baldasare et al., 2012, p. 138). Finally, the respondents consistently identified women as being more involved in cyberbullying than men.

Dilmac (2009) also gathered data from the Selcuk University from 666 participants from the Education department (M_{age} = 19.29, SD = 1.14) to evaluate the events of cyberbullying correlated with the Adjective Check List to identify personal traits of an individual via an analysis of their social needs. The researcher utilized an operational definition of cyberbullying from Belsey (2008) as “involving the use of information in communication technologies to support deliberate, repeated, and hostile behaviour by an individual or group that is intended to harm others” (http://cyberbullying/.ca). It should be noted that Bill Belsey is often credited with originating the term cyberbullying (Spears et al., 2009). Similar to Aricak, Dilmac utilized the terminology ‘cyberbully’ and did not limit respondents to college cyberbullying experienced. Findings indicated an impact of personality on cyberbullying: aggression and succorance (“soliciting sympathy, affection, and emotional support from others”) positively predicted cyberbullying, whereas endurance and affiliation (“seeking and sustaining numerous personal friendships”) were negatively correlated with cyberbullying (p. 1313).

Concern regarding the *cyberimmersion* of individuals born after 1980 in the First World motivated Englander, Mills and McCoy (2009) to evaluate the impact of exposure to user-generated content that college students experienced.

Data were gathered from 283 undergraduate students. Individuals participated for course credit or as a course requirement. The survey queried respondents regarding their experiences with cyberbullying in high school and college. Eight percent of participants reported being cyberbullied while at college via e-mail and 3% admitted being a bully at college.

Finn (2004) provided one of the first published reports of university online harassment via the survey conducted, in April 2002, of 339 undergraduate students at the University of New Hampshire. When queried regarding repeated e-mail or instant messaging that "threatened, insulted, or harassed" (p. 468), approximately 10 – 15% of respondents replied affirmatively. Over half of the participants (58.7%) had received unwanted pornography, although it was not definitive if the messages were sent personally to the individual. One-third of students who self-identified as a minority in sexual orientation (*n*=16) had received harassing email from someone that they did not know or barely knew, compared to 14.6% of heterosexuals (*n*=323).

Johnson (2011) presented a convenience sample of 577 undergraduate students enrolled in communication classes at two midwestern universities as partial completion for a Doctor of Philosophy. Participants' age ranged from 17 to 55 (M_{age}=22), and the majority were in their first year of college. A $15 gift card or extra credit points were given to the participants. Respondents completed a "Cyber-bullying Target Scale" in which they replied to questions such as "*In the past, I have been cyber-bullied a lot*" (p.82). All questions were

generalized with “in the past” and did not specify during the college years. A Likert Scale was constructed to query emotional responses to the messages, feelings regarding the content of the messages, and for specific instances of being or having been a cyberbully.

Results indicated that victims of cyberbullying were more likely to be absent from school. However, there was a negative correlation between grades and being victimized via technology. The researcher found a positive relationship between being a target of cyberbullying and loneliness and peer rejection. In addition, results indicated the effects of cyberbullying message exposure remain salient for the victim and are easily recalled. Participant data were operationalized to describe cyberbullying as:

> A message perceived to be: mean/hostile, hurtful, abusive, coercive, making fun, casting one negatively (such as calling one names), or as lies or rumors. This study reveals that cyberbullying is clearly demonstrated when these negative actions occurs via some form of media, such as cell phone, email, text or IM, chat rooms or social networking (p. 136).

Kenworthy, Brand, and Bartrum (2012) provided a service-learning platform to educate undergraduate college student regarding the incidents and impact of cyberbullying, utilizing the concept of teaching undergraduate students how to educate secondary students to avoid, recognize, and address cyberbullying would benefit the undergraduate as well as the younger student. From September 2010 to January 2011, undergraduate students created informative presentations for over 10,000 students in secondary schools.

Utilizing the a definition of cyberbullying as "a method of bullying using technology . . . to bully verbally, socially, or psychologically" (p. 86) the authors guided 77 undergraduate students as they researched, designed and performed presentations for secondary students.

Pre and post-program data from 331 secondary students indicated a significant difference in their knowledge accuracy regarding bullying and in behavior changes they would adopt to reduce bullying in their areas. In addition, the university students indicated a strong value gained from the program. One participant noted that the project had "changed my life" (Kenworthy et al., 2012, p. 95). Responses to a post-presentation questionnaire indicated that while 44% had never thought about cyberbullying issues before, 86% noted that the experience would change their online behavior.

Research conducted at a large western Canadian university formed the data set for Leenaars and Rinalid (2010) as they queried students experiences with indirect aggression. This mixed method study gathered survey data via four scales to measure direct and indirect aggression, expressions of aggression, gender role identification (BSRI) and behavior assessment for children. In addition, a random subset of participants (n=18) completed three days of daily journaling with paper and pen. Forty-two participants (M_{age}=20.43) completed the measures.

The Direct and Indirect Aggression scale (DIAS) questions focused participants on events "in the past year" such as "gossiped about someone with whom you were angry" and "have you been shut out of a group" (p. 136). Results

indicated that 7% of respondents were indirect aggressors, 10% were direct, and 5% were both. There was a significant relationship with indirect victimization and hyperactivity, sensation seeking, and mania (p. 137). Older participants were less likely to experience aggression, hyperactivity, sensation seeking or mania. There were no significant sex differences noted.

The qualitative portion of Leenaars and Rinaldi's (2010) research was reviewed with an inductive thematic analysis and found that participants were likely to express emotionally how the incident affected them with a subtheme of revenge, thus explaining why some victims become the aggressor. Aggression was viewed as a method of attaining or maintaining control and indirect aggression was related to psychosocial maladjustment (alcohol abuse, anxiety, sense of inadequacy, hyperactivity). Gossiping was noted to be harmless entertainment with one participant stating, "it's always going to happen, no matter what, it's just like natural that people do that" (p. 145).

Schenk (2011) provided an experiment analysis to determine the psychological impact of cyberbullying victimization for college students in research completed for partial fulfillment of a master degree. A sample of 799 participants, who ranged in age from 18 – 24 (M_{age}=20.01, SD=2.41), completed the survey. This sample was further divided into group of "victims" (8.6%: replied yes to having experienced cyberbullying at least four times or more and to a question specifically about being a victim of cyberbullying) and a control group (*n*=69). No significant differences were found in the demographics between experimental and control groups.

This researcher focused specifically on "during your time at WVU" to determine the prevalence, psychological impact, and coping strategies of college students when faced with cyberbullying. Several measures were distributed: a researcher developed Internet Experience Questionnaire (IEQ), a questionnaire focused on the symptoms of psychopathology (Symptom Checklist-90-Revised), a Likert-type scale to determine suicidal ideation, and a five point Likert Scale to determine five personality traits (neuroticism, extraversion, openness to new experiences, agreeableness, and conscientiousness).

Results indicated that victims of cyberbullying were significantly higher in depression, anxiety, phobic anxiety, and paranoid subscales. In addition, 5.7% of victims (*n*=4) reported attempting suicide (control = 0%) and 10.1% had frequent suicidal ideations (control = 0%). Interestingly, phone calls were the most prevalent media of victimization (80%) of the five measured (also text messaging, Internet, picture/video messaging, and masquerading). The most common attack for both genders was an attack on their self-worth (e.g. "your worthless"). An interesting statistic since decades have been spent helping adolescents and children develop self-esteem and self-worth. The second most common for females was regarding sexual activity (e.g. "slut") and for males was sexual orientation (e.g. "gay"). The third most prevalent was the same for both genders, attacks on appearance (e.g. "ugly"). The victims of cyberbullying were likely to victimize others; 60.8% reported cyberbullying others at least two to three times (33.3%) and possibly four or more times (27.5%).

An investigation of the use of technology communication devices to

cyberbully was conducted by Walker, Sockman, and Koehn (2011) to determine the covert events that surround the undergraduate college students' experience of cyberbullying. A total of 131 students were surveyed in a northeastern US college. The researchers presented the following definition of cyberbullying:

> The use of information and communication technologies such as e-mail, cell phone and pager text messages, instant messaging, personal Web sites or blogs and online personal polling Web sites. The technology is used to promote deliberate, repeated, and hurtful behavior by an individual or group with the intent to harass or embarrass (p. 32).

While the demographic data specified where the student was living (on campus, at home, off campus but not at home) during the current college semester, the questions did not specifically address "while at college." Results indicated that up to 54% of respondents knew someone who had been cyberbullied (with cell phones: text, pictures, video or messages). One hundred percent of male participants knew someone who had been cyberbullied. Eleven percent (n=14) had been cyberbullied, with 14% of those (n=2) having been bullied over ten times. When queried about specific instances of communications that were repeated and undesired results ranged from 3% (receiving threatening pictures or images) to 34% (someone pretending to be someone else). Receiving unwanted tokens of affection, excessively 'needy' or demanding messages, and 'friending' others to get information about you were also reported at higher than 30 percent.

Smith, Grimm. Lombard, and Wolfe (2012) surveyed 340 undergraduate

students at the Ohio University (210 female, 130 male) with 22 closed and one open-ended question. Results indicated that 37% of respondents knew someone who had been cyberbullied, 3% (*n*=10) admitted to being a cyberbully and 16.7% were the target of cyberbullying. Statistical significance was noted in four areas. Students who self-identified as being a member of a Greek society were significantly more likely to observe someone they knew being targeted by cyberbullying. Though reverse of the hypothesis, a significant relationship was also noted with college living arrangements; students living off-campus were more likely to know someone who had been cyberbullied than on-campus individuals. Though not hypothesized, the authors noted statistically significance in the response of female and non-heterosexual students in being more likely to know someone who had been cyberbullied in college.

Williams (2011) surveyed 67 students from a nursing program in a private Christian university as partial fulfillment of a master degree in nursing and queried relational aggression in the adult population. The participants ranged in age from 19 to 55 (M_{age}=27.03, SD=10.75). Questions were directed for "now or within the last year" and utilized a measure to self-report aggression and social behavior. No definition or reference to cyberbullying was presented. Findings indicated a negative correlation between age and intentional negative actions within a relationship when one did not get what they wanted. Age was also negatively correlated with reactive relational aggression (intentionally hurting, spreading rumors about, or excluding someone due to anger).

An examination of these research articles indicated the necessity for more college-based research. Of the articles available, seven were based in the United States and six were international research (Turkey and Canada). From the studies in the U.S., three did not query incidents specific to the college experience (Abbott, 2011; Johnson, 2011; and Walker et al., 2011). The remaining four articles provided a glimpse of the events that are occurring on college campuses (Englander et al., 2009; Finn, 2004; Schenk, 2011; Williams, 2011). However, data gathered in 2002, by Finn (2004), is now dated. Williams (2011) queried adult aggression not specific to cyber-events. The dearth of literature regarding the impact of cyberbullying in the United States indicates a strong need for additional research.

The following section will delineate the emotional impact of cyberbullying for young adults, as well as the relationship of cyberbullying with gender, sexual orientation, and college major.

The Emotional Toll of Cyberbullying

The same negative emotions experienced with cyberbullying by teenagers were also reported for young adults. Individuals often turned to electronic media to air disputes and to seek retribution following arguments and relationship break-ups (Hoff & Mitchell, 2009). Those who felt alone and lonely often turned to social media for that feeling of inclusion. Social media, such as Facebook, was designed to allow individuals to create human connections and expand their social networks. Social connections are essential for individuals to maintain a physiological and emotional balance. (Cacioppo, 2008; Madge, 2009).

Reports of cyberbullying victimization for college-aged individuals ranged widely from eight to fifty-six percent. The range of those who were cyberbullies was from three to 20 percent. Lee (2004) provided a literature review and delineated six key concepts that are utilized in cyberbullying definitions: intent, hurt, repetition, duration, power, conflict, and provocation. Other authors questioned the validity of a definition that was primarily adapted from the original concept of Olweus in the 1980s. The range of percentages reported for cyberbullying may be due to lack of consistency in data gathered due to a non-standardized definition. One goal of this research is to operationalize the event called "cyberbullying."

Individuals who were bullied via technology often experienced a more heightened emotional impact due to the anonymity that the bully was allowed. In addition, victims reported feeling psychosocial maladjustments such as alcohol abuse, anxiety, and sense of inadequacy (Aricak, 2009; Akbulut et al., 2010a; Hoffman & Mitchell, 2009; Leenaars & Rinalid, 2010; Spitzberg & Hoobler, 2002). While most respondents reported varying levels of emotional upset, Schenk (2011) had "approximately 12" participants deny being bothered by cyberbullying events experienced. Abbott (2011) noted that the majority of school shootings in the United States were by individuals who have been bullied.

The tragic suicide death of Tyler Clementi, on September 22 2010, catapulted the discussion of college level Internet victimization and suicide into the mainstream media (Cloud, 2010). Schenk (2011) was the only research

article to report on suicide attempts or thoughts. The depth of depression that some victims feel when cyberbullied indicates the necessity for more research to better understand the impact of the proliferation of social media accessibility for college aged individuals.

Cyberbullying and Sexual Orientation

Another seldom-studied area of technologically based harassment involved those in the minority of sexual orientation (GLBT). Research that has analyzed events of cyberbullying correlated with sexual orientation have found that self-identified GLBT individuals reported receiving communications that harassed, threatened and insulted them, from people known and unknown to them, based on their sexuality (Abbott, 2011; Finn, 2009). Schenk (2011) found the second highest incidents of cyberbullying for college-aged males based in sexual orientation harassment.

In quantitative research, the use of theory provides researchers the connections between independent and dependent variables to further understand a phenomenon. A theory is a "set of interrelated constructs (variables), definitions, and propositions that presents a systematic view of phenomena by specifying relations among variables, with the purpose of explaining natural phenomena" (Kerlinger, 1979 as quoted in Creswell, 2009, p. 51). The following section will present the theoretical perspective of Social Dominance and its application to an empirical evaluation of the impact of cyberbullying on undergraduate college students.

Theoretical Perspective of Social Dominance Theory

As noted, the application of a theory to research is a critical aspect of analyzing variables to understand the event. The breadth of a theory is a key determinant of its ability to explain how and why one may expect to find a relationship between an independent and dependent variable. Three levels of theories are presented as: micro-level, meso-level, and macro-level. Social Dominance Theory is a macro-level theory as it explains the impact of the social order of dominant attitudes based on society at large (Creswell, 2009; Sidanius & Pratto, 1999). The "theoretical catholicism" of the Social Dominance theory can be utilized to understand the aspects of social actions that range from "acts of mobbing in the playground, to mild forms of prejudice and street gang violence." Therefore providing this researcher a basis for analysis of acts of technology-based victimization experienced by young adults as they pursue post-secondary education (Pratto, Sidanius, & Levin, 2006, p. 57).

Pratto, Sidanius, Stallworth, and Malle (1994) developed the theory of Social Dominance due to the "ubiquitous nature of group-based prejudice and oppression" (p. 741). The authors combined "psychological, social psychological, social-structural and elite and evolutionary theories" to develop a comprehensive model that can be utilized to research human domination and provide a correlation between individual personality and actions with the sphere of societal composition (p. 31).

Human society provides an inherent group-based structure in which dominant and subordinate hierarchies reside. Through additional research, Pratto and Sidanius (1999) established an understanding of the high level of unspoken agreement that delineates groups that subjugate others from those who are oppressed. The achievement and actions of individuals in the group lends to the "social power, prestige, and privilege" of being a group member and the social status of the group itself (p. 32). The dominant, leader groups possess excessive amounts of *positive social value*, the material and figurative possessions that indicate political authority, wealth, and increased social status. Subordinate groups are those with high *negative social value* and thus have low power and social status (p. 31 – 32).

These hierarchies are established and maintained through *legitimizing myths* that are "attitudes, values, beliefs, stereotypes and ideologies that provide for moral and intellectual justification for the social practices that distribute social value with in the social system" (Pratto et al., 2006, p. 45). Two forms of *legitimizing myths* are discussed: Hierarchy enhancing and Hierarchy attenuating.

In society, hierarchy-enhancing myths (HE myths) are those noted to support the inequality that is inherent to group-based hierarchical system. Often focused on individual responsibility, the Protestant work ethic, and political conservatism, individuals who support HE myths believe that position in society was earned and therefore deserved. Contrary to HE myths are the hierarchy-

attenuating myths (HA myths). HA myths are noted to support equality and are based in the major themes of socialism, feminism, and universal rights of mankind (Pratto et al., 2006; Pratto et al., 1994; Sidanius & Pratto, 1999).

Pratto et al (1994) utilized the term "trimorphic structure" (p. 33) to delineate the group-based hierarchies that exist in society: age, gender, and arbitrary-set. Age and gender-based hierarchies are historically very stable entities. It is with the arbitrary-set hierarchy that one can see the formation and sustainability of groups that may impact social media communications.

Arbitrary-set hierarchies are formed based on the situational and contextual aspects by which "ingroups and outgroups" are created (Pratto et al, 1994, p. 33). These groups, formed and supported via societal actions, are based in race, religion, and social class. In addition, they can be formed via any other group distinction that human thought is capable of creating. Although it is those that conform to the HE myths of superiority and inequality that form the groups, it is also noted that the subordinates, or outgroup members, also help to sustain the hierarchy. Pratto et al. (1994) noted that though there may be some resistance, "the high level of active and passive cooperation with oppression provides stability to group-based hierarchies'" (Pratto et al., 2006, p. 43).

Pratto et al. (2006) stated that group conflicts, such as racism and ethnocentrism, provided different manifestations of the basic human tendency to use oppression to form group-based hierarchies in society. Phenomena that exist in society, such as prejudice, stereotypes, and discrimination, cannot be

understood without the framework of social discourse and individual behaviors that influence the formation of such hierarchical thoughts and actions.

Considered part of the social structure, the concepts of arbitrary-set hierarchies may be applied to better understand the thoughts and actions of those who cyberbully and those who are cyberbullied. To determine the extent that each individual accepts or applies HE and HA myths to their daily lives, one must evaluate the concept of Social Dominance Ordinance (SDO).

SDO is the measure of an individual's general willingness towards endorsing legitimizing myths to support or deny group-based hierarchies. The behavior of individuals is connected to the levels of social power of each group. SDO may be noted as a broad empirical or conceptual range due to its relationship with any social dogma, attitudes, or beliefs that work to delineate and control the social power of individuals via inferior or superior groups (Pratto et al., 1994; Sidanius & Pratto, 1999).

SDO is considered a general social-attitudinal process that is relevant to intergroup relations. Individual levels of SDO are noted as a normal aspect of each person, influenced by many aspects of humanity including, but not limited to: background, levels of education, personality temperament, and gender (Sidanius & Pratto, 1999). Research indicated that levels of SDO correlated with the acceptance of *legitimizing myths.* Individuals with higher SDO related to HE myths and lower SDO with HA myths. This research will be reviewed to attain an understanding of the potential impact on cyberbullying-based research.

Social Dominance Ordinance and Gender

Research has indicated a relationship between SDO and gender. Studies have indicated a significant difference in the SDO level between genders, with men having a higher SDO than women (Caricati, 2007; Dambrun, Duarte, & Buimond, 2004; Foels & Reid, 2010; Pratto et al., 2006; Pratto, et al., 1994; Zakrisson, 2008). Several studies have worked to determine the basis of this research finding.

Caricati (2007) surveyed 162 students in the University of Parma (M_{age}=23) and evaluated the relationship of SDO with social values. The cultural differences of research based in Italy were delineated and overcome with a comparison of cultural bias similar to that of the United States. Findings indicated that men were significantly higher in SDO than women. Statistical analysis led researchers to hypothesize that the difference noted was based in socialization process rather than genetics. Thus stating that SDO was "an expression of a value referring to domination among groups as a whole" (p. 169). Schmitt et al. (2003) provided similar research results in their analysis of data. Findings indicated that gender differences in SDO were mediated by sexism and the different positions that men and women hold in society.

Also striving to understand the difference between gender, Foels and Reid (2010) conducted two studies (Study 1: 117 students, M_{age}=19.5; Study 2: 209 students, M_{age}=19). Striving to determine the relationship between gender, SDO, and cognitive complexity, the researchers first analyzed the gender

difference of cognitive complexity. Results indicated that women are higher than men in cognitive complexity and that it mediated the relationship between gender and SDO. Individuals with lower cognitive complexity were more supportive of group-based hierarchies. According to researchers, these results supported the theory of Social Dominance.

Regardless of the cause of the gender differences noted in SDO levels, results indicated that men were typically higher than women and thus are more apt to support HE myths. These findings prompt this researcher to hypothesize a higher level of victimization from men than women in the current research.

Social Dominance Ordinance and College Major

Pratto et al. (1994) provided data to better understand what academic interests individuals had and correlated those findings to SDO levels. Eleven samples, collected from the spring 1990 through April 1992, provided data from 1, 747 college students from several universities in the United States. Men scored significantly higher than women in SDO levels.

In addition, the researchers queried the respondents' post-college career preference. Using a theoretical basis, 20 career choices were provided and demarcated as *hierarchy enhancing* (HE), *middlers*, or *hierarchy attenuating* (HA) (p. 747). Professions, such as law, law enforcement, politics, and business were classified as HE careers. *Middlers* were seen as those positions that would neither enhance nor attenuate inequality and included jobs such as science and sales. Social work and counseling were noted to be HA options. Results

supported the hypothesize to find that participants who planned HA careers were lower in SDO levels than those interested in HE career paths, even after controlling for gender.

Sidanius et al. (2006) provided a longitudinal five-wave panel study to further elucidate the relationship between college and SDO with 730 participants completing all five waves. Data was collected from University of California (UCLA) students from summer of 1996 through Spring 2000. A larger base of college majors was provided for HE and HA majors. HA majors were African languages, African studies, anthropology, Jewish studies, Latin American, near-eastern studies, public health, social work, Asian studies, sociology, special education, and women's studies. HE majors were accounting, business admin, business economics, business management, business, economics, marketing, and pre-economics. Majors that were not clearly classified as either HE or HA majors were placed in a *neutral* category (p. 1643). Findings supported Pratto et al. (1994) with participants in HE Majors having a higher SDO than neutrals and HA majors. In addition, a significant difference noted between gender and academic sector, with men consistently over-represented in HE majors and under-represented in HA majors.

To the best of this researcher's knowledge, no studies have been conducted to evaluate if a relationship exists between cyberbullying and college major. This information may provide a crucial understanding to educators and college counselors. Research results have indicated a correlation between

college major, gender, and SDO. An analysis of the relationship between college major and cyberbullying is imperative.

Social Dominance Theory and Cyberbullying

Through an extensive article search only two other empirical studies were found that utilized the theoretical perspective of Social Dominance. In their research of cyber-harassment in the middle school, Beran and Li (2005) stated, "It seems plausible that social dominance theory can be applied to cyber-harassment as victims seem to experience fear and perhaps also helplessness, and, thus, consider themselves to be in a subservient position to the 'cyber-aggressor'" (p. 727). However, no hypotheses or correlations were connected with the theory. Walker, Sockman, and Koehn (2011) also evaluated cyberbullying on the college level within the theoretical perspective of Social Dominance Theory.

Sibley and Duckitt (2010) conducted a one-year longitudinal study of the Big-Five personality traits (Extraversion, Agreeableness, Neuroticism, Conscientiousness, and Openness to Experience) in correlation with SDO. The researchers found that low levels of agreeableness and high levels of extroversion correlated with high SDO. Such personality traits were noted to "cause individuals to adopt competitive and threat-based motivational goals" (p. 550). Competition lends itself to winners and losers and thus may be associated with the socially dominating actions of the cyberbully.

Much research has indicated that SDO can be used to understand attitudes regarding new principles or policies (Duriez & Van Hiel, 2002;

Overbeck, Jost, Mosso, & Flizik, 2004; Pratto et al., 1994). When society undergoes major change, such as technological innovations, the SDO of individuals was noted to lend to new *legitimizing myths* that create hierarchical roles (Pratto et al., 1994). Leenaars and Rinalid (2010) presented the nature of indirect aggression to be one that provided the aggressor the ability to destroy the reputation of a rival while sustaining or promoting their repute and establishing themselves high in the hierarchy of social dominance.

The plethora of new Web-based, user-designed communication tools provides the platform necessary for individuals and groups to create and support hierarchies via accepted notions of HE myths. Cyberbullying, or technologically based indirect aggression, has indeed opened a new frontier for individuals to create ingroups and outgroups of power and prestige. This research design was formulated to illuminate the cyberbullying actions of college students to inform educators, parents, and school counselors on the extent and basis of this victimization and guide students towards a better understanding of the challenges faced as they walk onto the college campus.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

Introduction

In keeping with the representative research that has addressed cyberbullying on the college campus (Abbott, 2011; Akbulut et al. 2010a, 2010b; Akbulut & Eristi, 2011; Englander et al., 2009; Finn, 2004; Johnson, 2011; Schenk, 2011; Walker et al., 2011) a descriptive study was conducted utilizing a survey instrument. The primary focus of descriptive research is to provide an understanding of the events, without treatment, to determine the attitudes and beliefs of the participants without intervention (Patten, 2009; Pyrczak, 2006). Thus, the intent of this research was to expand the current, limited knowledge of the events of indirect relational bullying that college students experience via the Internet and technology. In addition, the researcher will analyze data gathered to develop a conceptual definition of "cyberbullying" to clarify how young adults on the college campus view the term (Buddenbaum & Novak, 2001).

Survey instruments from previous research were available, however, the instruments did not fulfill the necessities for this study. Therefore, a survey instrument was developed. This chapter will provide information regarding the process of creating the survey instrument. The research questions and hypotheses, population and sampling, reliability and validity, method of proposed data collection and analysis will also be discussed. Finally, a review of the ethics and informed consent techniques will be assessed.

Research Questions

The following research questions will be evaluated via this research design:

RQ #1: What is the conceptual definition of cyberbullying for undergraduate college students?

Supporting Hypotheses:

H1: College aged men will report a higher level of cyberbullying others than will college aged women

H2: College students enrolled in HE majors will report a higher level of cyberbullying others than those in HA majors.

RQ #2: What instances of cyberbullying do undergraduate college students experience via social media?

RQ #3: Is there a relationship between the extent that students utilize technology to communicate and amount of cyberbullying experienced via social media?

Research Hypotheses

After the literature review, the following hypothesis will also guide the data analysis:

H3: College students who self-identify as a minority in sexual orientation (GLBT) will experience higher levels of cyberbullying via social media than those self-identified as heterosexual.

Survey Design

Prior to the first written word of the survey, the researcher must decide the research focus. Following an in-depth literature review, a descriptive approach was chosen with open ended questions provided for individuals to add comments regarding each instance of cyberbullying experienced. This pragmatic paradigm supplied the ability for the researcher to more fully understand the problem. The ability to combine the structure of quantitative design with the additional information presented by respondents allowed the researcher to present results in charts and numbers augmented by narrative discussion (Bloomberg & Volpe, 2008).

The author designed the final survey (see *Appendix A*) following a systematic research process. Following the initial literature review, a survey was constructed and pilot studied with 120 participants (see *Appendix B)*. During data analysis, concerns were noted in the survey design. Additional reading and research led to the creation of a revised survey (*Appendix C)*. Prior to distribution, this questionnaire was reviewed by a pilot group (n=29) of demographically specific consultants for jury validation. Jury validation, a form of content validity assessment, provides more evidence for the quality of the measure (Buddenbaum & Novak, 2001). Discussion followed and changes were

incorporated (see *Appendix D*). Reliability and Face validity was addressed (see following section).

Pilot Research and Survey

The author developed a 27-item survey to address the purpose of the study (see *Appendix B*). Closed-ended questions addressed demographic data and asked about instances of hearing about and experiencing cyberbullying at the college where the data was collected. An open-ended question was included to allow respondents to offer other instances of cyberbullying experienced. The survey instrument was created from the combination of information from Li (2006) and Spitzberg and Hoobler (2002).

Participants received a six-page packet. The Information Sheet, page one of the packet, contained detailed information regarding the purpose of the study, a definition of cyberbullying, and the contact information for the university's counseling and psychological services as well as the location and hours for campus security. Haber and Haber (2007) defined cyberbullying as,

> The use of information and communication technologies such as e-mail, cell phone and pager text messages, instant messaging, personal Web sites or blogs, and online personal polling Web sites. The technology is used to promote deliberate, repeated and hurtful behavior by an individual or group with the intent to harm others (p. 52).

Respondents were directed not to write their names on the survey papers and were directed to keep the Information Sheet.

The second page provided information to the participants regarding the researcher and the purpose of the research. Also included was a discussion of the risks, the voluntary nature of the study, and informed consent.

The survey contained a demographic questionnaire to determine gender, age, living arrangements, ethnicity, school grade average, and hours of technology use per day. Twenty-one questions were utilized to gather data. Respondents specified their knowledge of students being cyberbullied and technologies used. Their direct experience with cyberbullying was analyzed based on technologies used, who perpetrated the bullying, the frequency of cyberbullying, and whether they told a parent/guardian or other adult. The survey was concluded with fourteen specific instances of undesirable and obsessive communication via computer or other electronic means.

The survey was distributed to 131 students at an undergraduate university in Northeastern Pennsylvania. Data was analyzed from 120 participants. After data analysis, the following concerns arose. The wording of the question that queried if the respondent "knew someone who had been cyberbullied" left it unclear as to whether it was the respondent them selves being identified. Further research and discussion led to this question being eliminated on the final survey instrument.

A second concern was with the use of the term "cyberbullied" at the outset of the survey. Data analyses instigated this concern as the researcher noted that the rate of respondents who reported being cyberbullied (14%) was much less than those who confirmed experiencing various events of relational harassment such as receiving pornography, exaggerated tokens of affection, and excessively 'needy' or demanding

messages (23%, 33%, and 30% respectively). The decision to create the survey with questions that addressed events experienced via social media and cell phone usage, without the term "cyberbullying" at the outset of the survey was made to prevent self-selection bias (Akbulut & Eristi, 2011; Akbulut et al., 2010a, Juvonen & Gross, 2008).

Finally, the inability to determine if the respondents were addressing issues that occurred at college was apparent during the analysis phase. Although cyberbullying at any age is hurtful, the primary intent of this research was to illuminate the events that occur at the college level. Therefore, the terminology was changed to specifically indicate, "since you've been at college" (see *Appendix A*).

To address the concern of utilizing the term "cyberbullying," the researcher accessed additional articles. Akbulut et al. (2010b) analyzed data from 896 respondents, in February 2009, via a 36-item web-based survey to create a scale for investigating cybervictimization. The authors then revised the survey and redistributed it to 200 new respondents to confirm the structure. Data analyses indicated a high internal consistency (Cronbach's $\alpha = .97$). Their scale was adapted to accommodate cultural differences and address the specific research questions and hypotheses of this study and presented for jury validation.

Jury Validation of Survey

To further substantiate the survey design, the author presented the survey draft (see *Appendix C*) to demographically specific consultant groups (Buddenbaum & Novak, 2001). Two thirty minute sessions (Group 1: $n = 11$; Group 2: $n = 18$) allowed the consultants to evaluate, critique, and offer written input into the ability of

the survey to address the concerns of the study. In-depth discussion was invaluable (see *Appendix D*). The researcher then adapted the survey instrument to address the suggestions from the group (see *Appendix A)*.

One unanimous concern was the length of the survey instrument; each consultant stated that they would not complete, or accurately complete, the survey due to the number of questions. Reinard (2006) noted that length of a survey might be a source of unreliability with "shorts tests tend[ing] to be less reliable than long ones" (p. 123). With this in mind, the primary change made to the instrument was to remove questions from the original document without compromising reliability. Initial inquiry was being made into both sending and receiving messages and images, the focus of this research was to analyze what incidents of cyberbullying are *experienced*, therefore, those items that queried sending messages were removed. Expert jury validation will be discussed in the next section.

Reliability and Validity

Descriptive empirical studies are the most common form of quantitative research for communication applications. Politicians, journalists, media organizations and other polling firms utilize survey design (Buddenbaum & Novak, 2001; Patten, 2009; Reinard, 2006). Survey design was the unanimous choice of all past researchers in gathering data regarding cyberbullying on the college campus. When gathering data, the researcher must place reliability and validity of the instrument at the forefront of survey development. It is essential for a survey to be reliable for it to be valid (Buddenbaum & Novak, 2001).

The survey utilized in this study was evaluated for reliability via the construction process. As stated, the survey developed by Akbulut et al. (2010b) formed the basis for wording of the majority of this survey. The high internal consistency (Cronbach's $\alpha = .97$) reported by Akbulut et al. (2010b), indicated that the instrument was consistent in results yielded (Reinard, 2006, p. 121).

Content validity of the survey instrument was assessed via expert and peer jury validation. A demographically specific volunteer consultant group ($n = 29$) provided the first step of validation. A three-step process was employed.

Following an introduction to the research purpose and overview of the topic of cyberbullying, the first step was an individual review of the survey. Volunteers were specifically informed not to take the survey, but to "tear it apart" to help the researcher determine the value and wording of each question. Following this, small group discussions ($n = 3$ or 4) commenced in which the participants discussed the questions and delineated concerns. Finally, a whole-group discussion, led by this author, evaluated each question individually. Concerns were voiced and documented (see *Appendix D*) and the survey was changed accordingly.

The edited survey was then subjected to expert jury examination. Reinard (2001) noted expert validation as the process of specialists in the subject matter evaluating the measurement instrument to assess its merit. Dr. Yavuz Akbulut, professor at Anadolu University, has conducted numerous studies into cyberbullying of adults (Akbulut & Eristi, 2011; Akbulut et al. 2010a; Akbulut et al., 2010b). Akbulut's publications are cited in this article and provide valuable insight into cyber-harassment of young adults via social medias. The author has communicated with Dr.

Akbulut in person, at the Association for Educational Communication and Technologies (AECT), and then via e-mail regarding this study. Akbulut provided valuable input into the validity of the survey. Suggestions were reviewed and implemented.

Methods

The purpose of this research was to create a definition for and an understanding of the events of cyberbullying experienced by undergraduate students at a mid-sized northwestern Pennsylvania college. A priori power analysis was conducted to determine the sample size necessary to achieve an 80% probability of detecting a real effect (20% probability of Type II error) with a medium effect size (.30). In addition, research indicated a sample size of approximately 370 respondents to generalize to a population of approximately 11,000 (Patten, 2011). The following procedure was followed.

Type of Research Design

The focus of this dissertation was descriptive analysis of the events of cyberbullying on the college campus. This causal/comparative aspect of the positivist method of inquiry combined with a priori power analysis of sample size yielded the information necessary to generalize the events of cyberbullying to the population of undergraduates at the college surveyed. This provided an understanding of what undergraduate college students are experiencing as they attempt to succeed in their college pursuits. In addition, the *etic* view of quantitative research enables the researcher to maintain objectivity and an unbiased approach to data analysis, while allowing her to evaluate the

"relationships and cause – effect phenomena" of cyberbullying (Bloomberg & Volpe, 2008, p.13). In addition, participants were able to describe their experiences surrounding the event of cyberbullying via the open-ended questions in the survey (Creswell, 2009).

The use of a quantitative survey design is well documented in cyberbullying research. Closed-ended questions, most containing ranking scales, have been utilized in numerous research articles (Agatston, Kowalski, & Limber, 2007; Beran & Li, 2005; Chapell, et al., 2006; Dilmac, 2009; Juvonen & Gross, 2008; Kowalski & Limber, 2007; Li, 2005; Li, 2006; Li, 2008; Raskauskas & Stoltz, 2007; Ybarra & Mitchell, 2004; Ybarra & Mitchell, 2007).

Sample, Population, and Participants

A random, cross-sectional sample for this research was drawn from the population of college students at a mid-size public university in rural Western Pennsylvania. The researcher utilized Qualtrics™, an online survey instrument, via the college email service to distribute the survey.

The Advanced Research Lab assisted in selecting the sample and disseminating the questionnaire. To obtain an understanding of the events of harassment via technology and its impact occurring within the population of approximately 11,000, the researcher requested a census of the population. College procedure prohibited an email sent to the entire undergraduate student population. The second request was then submitted to attain an appropriate sample size (*n*= approx. 370) and attain the ability to generalize to the undergraduate population. With

an anticipated response rate of 15 – 20% this researcher requested a sample base of 4 – 5,000 individuals.

An initial random sample of 2,000 emails was approved and a simple random sample was selected from the undergraduate student body and provided to the researcher by the Applied Research Lab. The survey was distributed March 5, with reminders sent on March 7 and the day students returned from spring break, March 19. The total number of respondents was less than 200. Therefore a second simple random selection of 2,000 undergraduate students was queried March 19 with two reminders sent prior to closing the survey. This probability sampling technique, with 438 participants, met the a priori power analysis sampling size and provided the ability to generalize to the population of the undergraduate college surveyed.

The ability to distribute the survey via the Internet enhanced the validity of the questionnaire as it provided consistency in the administration of the instrument to each participant. Concerns regarding low response rate and mortality were addressed via the reminder emails and an offer for participants to enter a drawing for an iPad 2®.

The purpose of the descriptive study was to investigate the amount of cyberbullying that traditional undergraduate college students experienced when using technology. To that end, the sample was limited to individuals between the ages of 18 – 24. Participants under the age of 18 were not allowed to continue due to skip logic added to the survey via Qualtrics™ and those who self-reported at over 24 were removed from the study as mortalities.

Data collection Instruments, Variables, and Materials

Following IRB approval, data collection was facilitated via Qualtrics™. The participants received two sections of the questionnaire. Seven demographic questions addressed the participant's age, gender, current major, ethnicity/culture, sexual orientation, area lived when not at college, and where they live when at college. The data section of the questionnaire utilized a Likert Scale to gather information regarding Internet based communication media, such as Facebook, Twitter, Four Square, etc. and cell phone (voice, texting, sexting, picture messaging, etc.) usage and experiences. Participants were then queried with five questions regarding the importance of social media, how often they logged in, and time spent with social media. Following this, a myriad of questions addressed the respondents experience with incidents that involved flaming, harassment, cyberstalking, denigration, masquerade, outing, trickery, and exclusion. Finally, a definition of cyberbullying was provided and two questions addressed having been a cyberbully or having been cyberbullied. Qualitative data were collected via "other" boxes that encouraged respondents to provide stories or additional information following each question.

An introductory letter and information sheet, both indicating that participation is voluntary, was provided for the participants. Completion of the survey implied consent. The completion of these forms would take approximately 20 to 30 minutes. Data from Qualtrics™ was automatically formatted into a spreadsheet and SPSS software was used to analyze the results. To assure anonymity, participants were provided a separate screen to enter

their email address for the iPad 2 ® drawing. All aspects of this study have been designed with the intent to conform to the requirements and concerns set forth in the National Cancer Institute's Human Participant Protections Education for Research Teams.

Data Analysis Procedures

Descriptive statistics (mean, SD, and percentiles) will be utilized to provide a numeric representation of demographics and extent of cyberbullying within the sample. Correlation analysis will be utilized with the Independent Variables (IV) of gender, emotional response, sexual orientation, and hours technology was used and cyberbullying as the Dependent Variable (DV). The Null hypotheses will be analyzed with independent samples *t* test. The IV attributes will be gender, major, and sexual orientation. Amount of cyberbullying will be the DV. de Winter and Dodou (2010) analyzed fourteen population distributions to compare results from the *t* test versus the Mann-Whitney-Wilcoxon (MWW) test for Likert style ranked data and found that the *t* test and MWW generally have similar power. The *t* test was utilized in this study to enable comparison with other current research.

Ethics

This study will provide minimal risk to participants, as defined in the "Pennsylvania of PA Institutional Review Board for the Protection of Human Subjects." The survey was designed in a method to produce minimal discomfort and was previewed by a preliminary student group, with the researcher present,

to determine emotional impact of questions included in the survey. A talk-aloud session was held to determine if adverse mental or emotional stress could be experienced. No emotional upset was experienced and no concern was expressed regarding the possibility of respondents feeling upset.

Potential risks for participants may include emotional upset or anger from revisiting an event, emotional upset or anger from an event that was originally considered a joke that may now be viewed as harassment, frustration or sadness from visualizing a written summary of bullying events, change of thought pattern regarding people whom the participant once considered a friend.

The survey is designed to prevent or reduce risks with knowledge of the Human Participants Protections data. This survey, being conducted to fulfill graduate requirements at Indiana University of Pennsylvania (IUP), does not qualify me to help with issues of cyberbullying. The college counseling and campus security services are available at PASSHE schools and information regarding access will be made available to the participants in the Information Sheet. No deception was used.

CHAPTER 4

RESULTS

Introduction

The use of data analysis to better understand the impact of cyberbullying on twenty-first century students is an essential aspect of research. This chapter provides the post-test results from testing the research questions and hypotheses set forth in this study. Discussion of the demographic data will be provided via descriptive statistics.

For results to be valid, the survey must be reliable (Buddenbaum & Novak, 2001). Discussion of reliability testing via Cronbach's coefficient alpha results will provide evidence of reliability for the survey instrument utilized.

Ellis (2011) indicated that power levels relevant to the detection of small effect sizes in communication research range between .16 and .34 (desired = .80). Therefore, missing small effects between 66 to 84% of the time (p. 75). To assure that this study was adequately able to detect effect, a priori power analysis was conducted. Research questions and hypotheses will be evaluated based on descriptive statistics, coefficient correlations of Spearman Rho, and independent sample *t* tests.

A Priori Power Analysis

"Seen through a telescope with insufficient power, the galaxy will appear as an indecipherable blur," yet, when a social science researcher sets samples

sizes based on availability of resources without a priori power analysis they are indeed creating a lens insufficient to analyze data (Ellis, 2010, p. 47). When working to create a study that provided the power necessary to reject a false null hypothesis with medium effect size, this investigator consulted the Applied Research Lab (ARL) at Indiana University of Pennsylvania for assistance. A review of the survey data being gathered determined that testing would primarily focus on correlation coefficients and independent sample *t* tests. Data from Cohen's tables (1988) indicated the necessity for a sample of over 200 to analyze correlation data and 64 participants for each group in the independent samples *t* test to achieve an 80% probability of detecting a real effect (20% probability of Type II error) with a medium effect size (.30). A sample of 370 respondents was determined to generalize findings to the campus population of approximately 11,000 undergraduate students (Patten, 2011).

When gathering data, the a priori power analysis determined the surveying process. The original simple random sample of 2,000 undergraduate email addresses had an initial response of 178 participants; 152 after culling the mortalities (age below 18 or above 24). Therefore, a second simple random sample of 2,000 was distributed. The final sample of 438 meets the requirements.

When two groups differ in terms of sample size, the harmonic mean of the two is used to determine whether the a priori per-group sample size for *t* tests has been met (see Table 1). Independent sample *t* tests were analyzed to

determine the statistical difference between cyberbullying (DV) and gender, college major (regrouped to HE and HA majors), sexual orientation (regrouped to heterosexual and non-heterosexual), participant have been cyberbullied (regrouped to yes and no), and participants who were cyberbullies (regrouped to yes and no). As noted in Table 1, each measure exceeded the predetermined participant size with the exception of the cyberbully variable, which was within acceptable limits ($M_H = 57.6$).

Table 1

Harmonic Means for Independent Sample t Test Analysis

Variable	Group 1	Group 2	Harmonic Mean
Gender	129	309	182
Sexual Orientation	396	37	67.7
College Major	143	191	163.6
Been Cyberbullied (yes /no)	360	43	76.8
Cyberbully (yes / no)	372	31	57.6

Demographics of the Sample

Data for this investigation of cyberbullying on the undergraduate college campus was obtained in a survey questionnaire disseminated via Qualtrics™ to a simple random sample of 4,000 students at Indiana University of Pennsylvania, during the spring of 2012. Demographic data were queried regarding gender, age, college major, ethnicity/culture, sexual orientation, and where the participants live both at college and at home. Technology usage questions provided information regarding the importance of checking social media

accounts, how often individuals logged into social media each day, how many text or picture messages are sent daily, and the time of day individuals logged onto their social media accounts.

Age and Gender

Of the 438 respondents included in data analysis the majority were female (See Table 2). Data for age were gathered via groupings of: under 18, 18 to 21, 22 to 24, and over 24. A total of 485 respondents (12% of 4,000) completed the survey. Of those, 1% were under 18, 73% were aged 18 to 21, 18% were 22 to 24, and 9% were over age 24. To attain the goal of evaluating traditional undergraduate students affected by cyberbullying the survey data analysis was limited to participants aged 18 to 24 (See Table 3). Therefore, those over age 24 and under age 18 were considered mortalities and not reported in any data analyses (Note: skip logic in Qualtrics™ was utilized for those under 18 and participants were automatically taken from the age question to the end of the survey; See *Appendix A*).

Table 2

Gender of Participants

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	129	29.5	29.5	29.5
	Female	309	70.5	70.5	100.0
	Total	438	100.0	100.0	

Table 3

Age of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
	Under 18	3	.6	.6	1.1
	18 - 21	339	70.3	72.1	73.2
	22 - 24	82	17.0	17.4	90.6
	Over 24	44	9.1	9.4	100.0
	Total	470	97.5	100.0	
Missing	System	12	2.5		
Total		482	100.0		

College Major

Respondents were given nine options of college major (See Table 4). Each major offered was represented in the study: business (17%), communication/media/library science (5%), education (14%), fine arts (4%), humanities (10%), law (2%), natural sciences (14%), social sciences (11%), and other (23%).

Table 4

College Major

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business	74	16.9	17.1	17.1
	Communication / Media / Library Science	21	4.8	4.8	21.9
	Education	62	14.2	14.3	36.2
	Fine Art	16	3.7	3.7	39.9
	Humanities	44	10.0	10.1	50.0
	Law	8	1.8	1.8	51.8
	Natural Sciences	61	13.9	14.1	65.9
	Social Sciences	48	11.0	11.1	77.0
	Other	100	22.8	23.0	100.0
	Total	434	99.1	100.0	
Missing	System	4	.9		
	Total	438	100.0		

Ethnicity or Culture

Individuals were provided six categories to describe their ethnicity or culture. The survey was designed to allow respondents to select all that applied and an "other" box was also provided. The options provided were White/Caucasian (84.7%), Hispanic (2.3%), Black/African American (8.9%), Asian (4.6%), Native American (2.1%), and other (1.6%). The five selecting "other" were Haitian-American, Muslim, White/Hispanic, Greek, and one chose not to answer.

Sexual Orientation

Sexual orientation was queried to provide data necessary to evaluate the impact of sexual orientation on being cyberbullied at college. Ninety-nine percent of participants (*n* =433 of 438) indicated their sexual orientation with 90.4% "Straight" (*n*= 396), 1.4% Lesbian (*n* = 6), 0.7% Gay (*n*= 3) and 6.4% Bisexual (*n*=28).

Living Arrangements

Past research has indicated a difference in cyberbullying based on living arrangements while at college (Walker et al., 2011). Individuals were queried regarding their living arrangements at college (see Table 5) and at home (see Table 6). At college, 45% lived in an on-campus dormitory or apartment, 47.9% lived off-campus but not with family, and 5.9% lived at home with family. Living arrangements at home were reported as: rural (27.6%), Town or village (34%), city (16%), big city (9.1%), or major metropolis (12.1%).

Table 5

Size of Hometown

		Frequency	Percent	Valid Percent	Cumulative %
Valid	Rural	121	27.6	27.9	27.9
	Town or Village (Areas like Indiana, Lansdale, Pottstown, or Carlisle)	149	34.0	34.4	62.4
	City (Areas like. New Castle, Easton, Johnstown)	70	16.0	16.2	78.5
	Big City (Areas like. Erie, Bethlehem, Altoona, Lancaster)	40	9.1	9.2	87.8
	Major Metropolis (Areas like. Pittsburgh, Philadelphia, NYC)	53	12.1	12.2	100.0
	Total	433	98.9	100.0	
Missing	System	5	1.1		
Total		438	100.0		

Table 6

Living Arrangements While at College

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In on-campus dormitory or apartment	197	45.0	45.5	45.5
	Off-campus but not with family	210	47.9	48.5	94.0
	At home with family	26	5.9	6.0	100.0
	Total	433	98.9	100.0	
Missing	System	5	1.1		
Total		438	100.0		

Social Media and Cell Phone Use

To better understand the participants' involvement with social media, questions involving the interest in and use of social media and cell phones were provided (Table 7). When respondents were queried regarding the importance of checking their social media accounts, a Likert Scale (Not at all to Extremely Important) was utilized. A total of 411 individuals replied with the majority of respondents ranking importance of checking social media at somewhat (48.9%) to extremely important (26.3%).

Table 7

Importance of Checking Social Media

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all important	26	5.9	6.3	6.3
	Somewhat Unimportant	56	12.8	13.6	20.0
	Somewhat Important	214	48.9	52.1	72.0
	Extremely Important	115	26.3	28.0	100.0
	Total	411	93.8	100.0	
Missing	System	27	6.2		
	Total	438	100.0		

In addition, the on-average frequency of logging into social media accounts was reported (Table 8). Interestingly, 1.4% of respondents did not use social media. The majority of respondents (63.5%) check their social media accounts several times a day. Slightly over 10% of respondents login to check their accounts more than once every hour.

Table 8

Frequency of Logging Into Social Media Accounts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I don't use social media	6	1.4	1.4	1.4
	Hardly ever	26	5.9	6.2	7.6
	Once a day	65	14.8	15.5	23.1
	Several times a day	278	63.5	66.2	89.3
	More than once every hour	45	10.3	10.7	100.0
	Total	420	95.9	100.0	
Missing	System	18	4.1		
Total		438	100.0		

Previous research has indicated a relationship between the time of day students use social media and being cyberbullied. Therefore, the survey queried the time of day that participants spent the most time logged on (Table 9). The majority of students (55.9%) were on in the evening (after 4PM but before 10PM) and almost 20% were on late night or early morning (after 10PM but before 6AM).

Table 9

Time of Day Participants Spent Majority of Time Logged On

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Morning (6am - before noon)	14	3.2	3.3	3.3
	Midday (noon - 4pm)	56	12.8	13.3	16.7
	Evening (after 4 - before 10pm)	245	55.9	58.3	75.0
	Late night / early morning (after 10pm before 6 am)	86	19.6	20.5	95.5
	Other	19	4.3	4.5	100.0
	Total	420	95.9	100.0	
Missing	System	18	4.1		
Total		438	100.0		

Cell phones have been reported in past research as a conveyor of cyberbullying via text or picture messaging. Respondents were provided six options for the number of text or picture messages sent daily (Table 10). Ninety-six percent of participants (n = 420) replied. The largest majority (34.9%) of participants sent from one to 25 messages daily.

Table 10

Number of Text or Picture Messages Sent Daily via Cell Phone

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	14	3.2	3.3	3.3
	1 - 25	153	34.9	36.4	39.8
	26 - 50	78	17.8	18.6	58.3
	51 - 150	89	20.3	21.2	79.5
	151 - 250	50	11.4	11.9	91.4
	More than 250	36	8.2	8.6	100.0
	Total	420	95.9	100.0	
Missing	System	18	4.1		
Total		438	100.0		

Reliability Testing

Reliability of a survey instrument is essential in providing accurate research results. Reinard (2006) acknowledged Cronbach's coefficient alpha as most commonly used with measures that do not have "right or wrong" answers, such as those of "attitudes, beliefs, or perceptions of communication behavior" (p. 130). Cyberbullying research falls within said parameters.

Cronbach's alpha provides researchers an understanding of the internal consistency of the instrument used to gather data to indicate the degree that the measures are evaluating the same underlying characteristics (Pallant, 2010). The commonly accepted alpha level for a study to be deemed acceptably reliable is .70 or greater (Urdan, 2010).

A reliability analysis was performed to examine the internal consistency of the factors presented in the cyberbullying survey utilized in this study. The analysis indicated an acceptably reliable scale (Cronbach's α = .761). The majority of items had an item-total correlation of greater than .3 indicating an acceptable degree of correlation with the total score (see Table 11).

The alpha could be improved marginally by removing two of the fourteen scales. Question 32 queried individuals being harassed or made fun of because of their sexuality (item-total correlation = .130; Cronbach's α if item deleted = .763). Question 44 evaluated being blocked by another in on-line discussions to prevent commenting (item-total correlation = .180; Cronbach's α if item deleted = .764).

Table 11

Evaluation of Survey Internal Consistency via Cronbach's Coefficient Alpha

Cronbach's Coefficient Alpha (N = 403)	Item Statistics		Item-Total Statistics	
Scale	Mean	Std. Deviation	Corrected Item-Total Correlation	α if Item deleted
	1.59	1.022	.449	.744
Received Unwanted, Inappropriate Messages				
Received Unwanted, Pornographic Images	1.28	.728	.448	.739
Replied Unknowingly to Someone Posing as Someone Else	1.22	.594	.401	.745
Facebook Friend "Friended" for Information	1.39	.807	.453	.739
	1.29	.681	.533	.730
Received Harassing or Threatening Messages				
Teased Due to Physical Appearance, Personality or Intelligence	1.29	.752	.399	.745
Harassed Due to Sexuality	1.02	.238	.130	.763
Target of Untrue Gossip or Humiliating Comments	1.18	.580	.506	.735
Had Problems Due to Personal Information Shared w/o Consent	1.26	.653	.376	.747
"Outed"	1.01	.140	.269	.761
Blocked by others	1.23	.551	.180	.764
	1.22	.682	.283	.757
Private, Personal Images Shared w/o Consent				
	1.11	.457	.354	.750
Other People Used Your Identity w/o Consent				
Been Cyberbullied	1.17	.573	.501	.736

Research Questions and Hypotheses

In this section, the researcher will present each research question or hypothesis with the supporting logic that was utilized to form the statement. Following this, data analysis and findings will be discussed.

Research Question One

What is the conceptual definition of cyberbullying for undergraduate college students?

Supporting Hypotheses

H1: College-aged men will report a higher level of cyberbullying others than will college-aged women

H2: College students enrolled in HE majors will report a higher level of cyberbullying others than those in HA majors.

Watching the news, scanning Facebook, and reading the papers all lends to the knowledge that students are being emotionally impacted via the messages, comments, and images posted on the WWW or sent via cell phones. Yet, following an intensive literature review this author finds a perplexing concern. What is the actual definition of cyberbullying?

Many researchers have investigated the cyber-based events that individuals, ranging from middle school to college, have experienced with the definition developed to define traditional bullying from seminal research of Dan Olweus, in Scandinavia, during the twentieth century. This definition includes strict parameters for behaviors that are "repeated and intentional in trying to inflict injury or discomfort on another" (Olweus, 1986, 1991, as stated in Olweus, 1993, p. 9).

With the plethora of technology and the inherent ability for messages to be instantly transmitted to a large audience, it is time that the definition be re-evaluated to address the lives of twenty-first century learners. The current survey was created with this in mind. One primary focus was to determine the extent of emotional impact from *one* episode of relational bullying via social media or hand-held technology.

Additionally, the Social Dominance Theory was applied to determine if individuals were working to dominate others in the use of cyberbullying. The act of domination could support the "intent" part of the current definition used in cyberbullying research.

Data analysis consisted of descriptive statistics, coefficient correlations, and independent samples *t* tests. Crosstabulation data were analyzed to indicate the level of emotional response reported by respondents who had experienced the fourteen cyberbullying items *only one time* (See Table 12). While the majority of respondents reported being "not at all" or "slightly" hurt, events of suicide and shootings on college campuses prohibit the conscientious investigator from overlooking the minority when emotions are at stake.

The percentage of individuals reporting feeling moderately to extremely hurt after only *one* incident ranges from 25 to 88.6 (See Table 12). Events that caused students to feel hurt, sad, angry, and scared that reported the highest number of students impacted were problems due to personal information shared without the victims consent (n = 61.25); receiving harassing or

threatening messages (n = 55.6); people friending Facebook friends to get personal information or pictures of the victim (n = 42.32); and being the target of untrue gossip or humiliating comments (n = 38.98).

Table 12

Crosstabulation of Respondents Moderately to Extremely Hurt, Angry, or Sad After Being Cyberbullied One Time (N=438)

Scale		Hurt/Sad	Angry	Scared	Total %	Total n
Received Unwanted, Inappropriate Messages	%	7.8	12.2	8.6	28.6	37.2
	N	130	130	130		
Received Unwanted, Pornographic Images	%	9.5	24.3	13.7	47.5	31.35
	N	66	66	65		
Replied Unknowingly to Someone Posing as Someone Else	%	10.0	18.2	8.5	36.7	22.39
	N	60	61	59		
Facebook Friend “Friended” for Information	%	8.8	26.7	11	46.5	42.32
	N	91	90	90		
Received Harassing or Threatening Messages	%	21.1	39.7	15.3	76.1	55.55
	N	71	73	72		
Teased Due to Physical Appearance, Personality or Intelligence	%	23.1	28.5	4.8	56.4	36.66
	N	65	63	62		
Harassed Due to Sexuality	%	25	0	0	25	1
	N	4	4	4		
Target of Untrue Gossip or Humiliating Comments	%	36.3	43.2	9.1	88.6	38.98
	N	44	44	44		
Had Problems Due to Personal Information Shared w/o Consent	%	34.3	41.5	11.7	87.5	61.25
	N	70	70	68		
“Outed”	%	40	5	0	40	2
	N	5	5	5		
Blocked Online	%	26.7	14.6	8.2	49.5	22.77
	N	75	75	74		
Private, Personal Images Shared w/o Consent	%	11.1	19.6	6.6	37.3	17.16
	N	45	46	45		
Other People Used Your Identity w/o Consent	%	10.2	24.1	13.3	47.6	14.28
	N	29	29	`30		
Been Cyberbullied	%	30.2	38.1	11.7	80	34.4
	N	42	42	43		

Participants were also able to express how they felt for each instance of cyberbullying queried. The following are quoted from participant response for individuals who experienced the type of relational bullying *one* time (Note: responses are copied as stated and not edited for errors).

Question 14: While at college have you received unwanted, inappropriate messages that included too much private information about the sender's body, sexual experience or other exaggerated messages of affection or desire?

"A guy I had been talking to was trying so hard to talk to me in a way that I didnt like. He kept making sexual references that I kept ignoring and avoiding. It really frustrated me and made me feel very uncomfortable because I am his friend."

"It was weird. I felt bad that the operson would degrade themselves so much as to post picture of their body for everyone to see."

"very hurt :("

Question 17: While at college have you received unwanted,

pornographic/obscene images or video?

"These types of social engagement or activity make me feel extremely uncomfortable because I am a very shy person."

"scared of that"

"It was just weird."

Question 20: While at college have you replied to social media messages from an individual or group pretending to be someone else without knowing it was not that person?

"My ex boyfriend pretended to be someone from IUP so that he could talk to me and get information from me. When I found out I was extremely angry and a little scared that he might be crazy."

"I didn't like the fact that I thought I was talking to one person and expressing private feelings and I was told it was a joke ad wasn't the person"

"very angry"

"I hate liars so it ruined my trust between myself and the person."

Question 23: While at college have you had someone "friend" a Facebook friend of yours to get pictures or personal information about you?

"It was an ex-girlfriend, she was clingy"

"Just felt annoyed that they would do that"

"one facebook friend had a picture of me as the main photo on his profile, and he never told me about it, it was a little scary to realize that somebody was using your photo as if they were you. that person told me that it was all a joke, but it was somehow disturbing not knowing about a joke beign made about you."

"It did not impact my life much but only to frustrate me a bit. It seemed creepy. I just blocked that person and changed my security settings."

Question 26: While at college have you received harassing or threatening messages through social media?

"Some girl was calling me names because I talked to her boyfriend. I was not upset or sad about the situation. I was mad because I did not do anything wrong, and she was taking everything out on me."

"I was scared because this girl has a reputation for being physical and threatening. It was only because I was friends with her boyfriend and she was a jealous person who didn't want him to have any girl friends . I was scared and was ready to call the cops on her of she sent anything else"

"I had been dating a guy for a few months who was white. Someone anonymously (using a John Smith profile with no info or pictures) messaged me. They talked about how inappropriate and disgusting it was for me to be involved in an interracial relationship. They told me how offensive it was to them and how unworthy I was of him and told me I needed to break it off and never engage in an interracial marriage again. They called me a bastard child because my parents are interracial. They threatened to find a way to end our relationship if I didn't do it myself immediately.

Question 29: While at college have you been teased of made fun of with social media because of your physical appearance, personality, or intelligence?

"I was angry because I fullbelieve that they were being rude just to make themselves fell better. It was hurtful and really rude."

"One of my "friends" indirectly insulted me on facebook. It hurt me very much because I thought we were on good terms. Now we're no longer friends."

"It didn't really hurt me because I didn't do anything wrong and I was staying true to myself. It made me angry because people didn't have better things to do than try and hurt other people. If it impacted my life in any way, it helped me to understand that the best way to deal is to stay true and be kind. Don't sink to other's levels."

Question 32: While at college have you been harassed or made fun of with social media because of your sexuality?

"There were two lesbians that were putting me down because I was straight and wanted to be with a guy friend. Part of me thinks they were kidding, but it was still rather hurtful to me."

"I just felt like the people who made fun of me were judging me without getting to know who I really am. It really hurt that people who barely knew me made fun of me because I am different than them."

Question 35: While at college have you been the target of on-line social conversations or postings that included untrue gossip or humiliating comments about you?

"My ex boyfriend posted terrible things about me. I was hurt and was hoping no one would think differently of me because none of it that he was posting was true."

"Once again, it is very frustrating knowing the kind of person you are, and then having someone humiliate you out of jealousy and hatred-knowing that there is no reason or motive behind this person's wrong-doing."

"The only time where this has occurred was when my girlfriend and I were insulted for dating after she had broken up with her last boyfriend. His sister attacked us via private message and on our separate Walls. It hurt my feelings because we were friends before. It was embarassing that something trivial was made into a big fiasco on Facebook."

Question 38: While at college have you had problems due to personal information shared about you without your consent?

"One of my friends tagged a photo of me that I didn't want anyone to see. It made me upset"

"It was aggravating and hurtful to know that someone can be that mean as to put my own personal information out so everyone could see. I didn't want it to be

posted but it was and I was embarrassed and angry. I also felt hurt because I thought I trusted that person."

"when done by someone i trusted and made me shutoff. Especially without consent. They thought because it also involved them, it was OK and they didn't need to ask."

Question 41: While at college have you been "outed" regarding your sexual

orientation via social media?

"A friend just posted on a picture something like "you're my favorite lesbian couple ever! So cute!" and it was a little surprising to see that posted on my facebook for the whole world to see, but I'm not hiding anything so it wasn't an issue beyond being a little shocking seeing it in print because I'm still getting used to it myself."

Question 44: While at college have you been blocked by others in on-line discussions / postings to prevent you from commenting?

"I was just annoyed that my ex was talking about me and there was nothing I could do about it to defend myself because I couldn't see it, my friends just told me what he was saying."

"An old roommate of mine blocked me after being kicked out of our apartment cause she thought I had something to do with it. I didn't and up until then I considered her a friend. I took it hard that she thought I would have anything to do with it so I was deeply hurt. However she doesn't deal with things like that well and some comments she had made before completely cutting me out of her life made me scared about should she ever want to get back at me and my other roommate for treating her so "poorly." It made me afraid to go anywhere in case I should run into her, including classes."

"It's just social media. If you don't want to hear my opinions anymore, its your right to ignore them."

"I just "unfriended" that person. Simple solution."

Question 47: While at college have you had private, personal photographs

and/or videos shared in social media without your consent?

"It was frustrating because I didn't have control over what the other person posted and couldn't delete it myself."

"my ex shared pictures with his friends and one of his friends let me know about it. It was pretty embarrassing"

"Ex bf showed pictures I sent him"

Question 50: While at college have you other people used your identity with social media to speak with others without your consent?

"Someone (to this day I am unsure of who it was) created a false facebook page of myself. I have never participated in creating a facebook/myspace social webpage because I do not care for people to view any pictures/information about myself."

"Girlfriend used my facebook to "check up on me" to see if I was fooling around with other people"

Frequency Comparison

As noted in Table 13, the percentage of respondents selecting occurrences of one or more times for the thirteen RBS questions ranged from 1.1 to 29.7%. When provided with the definition of cyberbullying as: "Social media and /or cell phones, used to deliberately and repeatedly deliver slanderous, harassing, obsessive or obscene messages that result in harm to the recipient," only 9.9% of respondents selected occurrences of one or more times.

Table 13

Frequency of Participants Being Cyberbullied One or More TImes (N=403)

Scale	*n*	Percentage
Received Unwanted, Inappropriate Messages	130	29.7
Received Unwanted, Pornographic Images	68	15.5
Replied Unknowingly to Someone Posing as Someone Else	62	14.2
Facebook Friend "Friended" for Information	95	21.7
Received Harassing or Threatening Messages	74	16.9
Teased of Made Fun of Due to Physical Appearance, Personality or Intelligence	65	14.8
Harassed Due to Sexuality	5	1.1
Target of Untrue Gossip or Humiliating Comments	45	10.3
Had Problems Due to Personal Information Shared w/o Consent	70	16.0
"Outed"	5	1.1
Blocked by others	75	17.1
Private, Personal Images Shared w/o Consent	46	10.5
Other People Used Your Identity w/o Consent	30	6.8
Been Cyberbullied	43	9.9

Correlation Analysis

An analysis of the correlation between the response rates of the thirteen relational bullying questions (RBS) to the direct question "have you been cyberbullied"(CBR) is also an important aspect of determining the accuracy of the current definition (See Table 14). The survey was designed to allow participants to respond to the relational bullying questions without being exposed to the definition of cyberbullying to prevent self-selection bias. If

respondents answer yes to any of the thirteen questions, they should also answer yes to the "been cyberbullied" question. The following crosstab and correlation analysis address the extent that participants responded.

Through working with the Applied Research Lab at Indiana University of Pennsylvania, it was suggested that correlation data from this study be analyzed using Somers' d, Kendall's tau-c, Spearman Rho, and Pearson's R. In doing so, this researcher noted that all values were similar in the level of effect (Example: If Somers' d was .192, Kendall's tau-c = .118; Spearman Rho = .207, and Pearson's r= .207). In Table 14, Pearson's R and Spearman Rho data is presented. Spearman Rho findings will be discussed.

As noted in Table 14, only three of 13 measures provide a positive medium or large correlation with respondents who answered yes to being cyberbullied. Those measures were: receiving harassing or threatening messages (r = .429); teased or made fun of due to physical appearance, personality, or intelligence (r = .311); and being the target of untrue gossip or humiliating comments (r = .329). All but one (being blocked by others) is significant at the $p < .05$ level or lower, indicating a strong confidence in the results obtained.

Table 14

Correlation Between Being Cyberbullied Response (CBR) With Relational Cyberbullying Scales (RBS) (N=403)

	Pearson R	Spearman Rho
Received Unwanted, Inappropriate Messages	.212***	.224***
Received Unwanted, Pornographic Images	.230***	.264***
Replied Unknowingly to Someone Posing as Someone Else	.200***	.215***
Facebook Friend "Friended" for Information	.231***	.229***
Received Harassing or Threatening Messages	**.504*** **	**.429*** **
Teased or Made Fun of Due to Physical Appearance, Personality or Intelligence	**.414*** **	**.311*** **
Harassed Due to Sexuality	.099*	.243***
Target of Untrue Gossip or Humiliating Comments	**.483*** **	**.329*** **
Had Problems Due to Personal Information Shared w/o Consent	.191***	.134**
"Outed"	.215***	.251***
Blocked by others	.068	.086
Private, Personal Images Shared w/o Consent	.157**	.163**
Other People Used Your Identity w/o Consent	.249***	.219***

* $p < .05$
** $p < .01$
*** $p < .001$
Interpretation Guidelines: Small r=.10 to .29; Medium r=.30 to .49; Large r=.50 to 1.0
(Cohen, 1988. pp 79-81). Medium and High results in bold.

Two supporting hypotheses were posed in relation to connection of the Social Dominance Theory and a person's desire to dominate others via social media and other technologies.

H_1: College-aged men will report a higher level of cyberbullying others than will college-aged women.

H_0: College-aged men and college-aged women will report the same level of cyberbullying others.

Research indicated that men are higher in SDO than women. If the current definition of cyberbullying is accurate, there will be a significant difference in the extent of cyberbullying between men and women, with men perpetrating more cyberbullying. An independent samples *t* test was utilized to compare the means between gender and question 58, which queried the "extent to which respondents engaged in behavior that fit the definition of cyberbullying." The question provided five selections regarding extent of cyberbullying: never, one time, two to four times, five to seven times, or more than seven times. To create a dichotomous variable, the responses were regrouped into "never (1)" and "one or more times (2)."

When responses were reviewed utilizing a crosstabs analysis (See Table 15) 6.9% of female respondents (*n* = 20) had cyberbullied others one or more times compared to male respondents at 9.6% (*n* = 11).

Table 15

Gender Response to Having Cyberbullied Others

			1.00 Never	2.00 One or More Times	Total
Gender	Male	Count	103	11	114
		% within gender	90.4%	9.6%	100.0%
	Female	Count	269	20	289
		% within gender	93.1%	6.9%	100.0%
Total		Count	372	31	403
		% within gender	92.3%	7.7%	100.0%

An independent samples *t* test (Table 16 and 17) was conducted to compare the cyberbullying occurrences for males and females. There was no significant difference in scores for males (M = 1.10, SD = .3) and females (M = 1.07, SD = .25; t (401) = .925, p = .36. The magnitude of differences in the means (mean difference = .03, 95%CI: -.031 to .085) was very small (eta squared = .002). The lack of significant difference fails to reject the null hypothesis and indicates that the research hypothesis is probably false. These data results indicate that the concept of SDO, or the need to be dominant, is not supported for gender.

Table 16

Descriptive Statistics for Gender Response to Having Cyberbullied Others

	Gender	N	Mean	Std. Deviation	Std. Error Mean
No: 1 Yes: 2	Male	114	1.0965	.29657	.02778
	Female	289	1.0692	.25424	.01496

Table 17

Gender Cyberbullying Level Independent Samples t Test

		Levene's Test							95% Confidence Interval	
		F	Sig.	*t*	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	Lower	Upper
Cyberbullying Mean	Equal Variances Assumed	3.349	.068	.925	401	.356	.027	.030	-.031	.085
	Equal Variances Not Assumed			.865	182	.388	.027	.032	-.035	.090

Significant at the $p<.05$ level.

H_2: College students enrolled in HE majors will report a higher level of cyberbullying others than those in HA majors.

H_0: College students enrolled in HE majors will report the same level of cyberbullying others as those in HA majors.

A second method for delineating the impact of SDO on cyberbullying is presented via an analysis of SDO correlated with college major. Research indicated that individuals who pursue hierarchy-enhancing majors (HE major)

have higher levels of SDO than do those in hierarchy-attenuating programs (HA major). An independent samples *t* test was analyzed to determine the difference of major and amount of self-reported cyberbullying behaviors.

As noted in the demographic Table 4, a large number of respondents (*n* = 100) indicated their specific major as an "other" entry. To prevent the loss of that data in analysis, the input was recoded when possible (example: Secondary Mathematics Education to Education, Nursing to Natural Sciences). Table 18 presents the new frequencies for analysis.

Table 18

Frequency Table of College Major

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business	86	19.6	19.8	19.8
	Communication / Media / Library Science	21	4.8	4.8	24.7
	Education	70	16.0	16.1	40.8
	Fine Art	23	5.3	5.3	46.1
	Humanities	51	11.6	11.8	57.8
	Law	8	1.8	1.8	59.7
	Natural Sciences	103	23.5	23.7	83.4
	Social Sciences	54	12.3	12.4	95.9
	Other	18	4.1	4.1	100.0
	Total	434	99.1	100.0	
Missing	System	4	.9		
Total		438	100.0		

Data were then recoded into two different variables to provide the dichotomous set necessary for independent samples *t* test analysis (Table 19).

Past research guided this process. HE Majors were recoded as variable 1 and included business, law, and natural sciences. HA Majors were recoded as variable 2 and included education, fine arts, humanities and social sciences.

Table 19

Recoded for Dichotomous Groupings of HA and HE Majors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	HE Major: 1	197	45.0	47.4	47.4
	HA Major: 2	219	50.0	52.6	100.0
	Total	416	95.0	100.0	
Missing	System	22	5.0		
Total	438	100.0			

When responses were reviewed utilizing a crosstabs analysis (See Table 20) the percentage of respondents from HE Majors stating they had cyberbullied others one or more times (8%, $n = 14$) was essentially equal to those of HA majors (8.1%, $n = 17$).

Table 20

Crosstabulation of HE and HA Major with Cyberbullying Others

			Cyberbully		
			1.00	2.00	
			Never	One or More	Total
Major	HE: 1	Count	161	14	175
		% within RQ4-HE_HA	92%	8%	45.3%
	HA: 2	Count	194	17	211
		% within RQ4-HE_HA	91.9%	8.1%	54.7%
	Total	Count	355	31	386
		% within RQ4-HE_HA	92.0%	8.0%	100.0%

An independent samples *t* test (See Table 21 and 22) was conducted to compare the cyberbullying occurrences for HE and HA Majors. There was no significant difference in scores for HE Majors (M = 1.08, SD = .3) and HA Majors (M = 1.08, SD = .03; t (384) = -.020, p = .98. The means for both majors are the same; therefore, no significant difference was possible. This indicated a failure to reject the null hypothesis. The research hypothesis is probably false. These data results signified that the concept of SDO, or the need to be dominant, was not supported.

Table 21

Descriptive Statistics for College Major Cyberbullying Level

	RQ4A	N	Mean	Std. Deviation	Std. Error Mean
No: 1 Yes:2	1.00	175	1.0800	.27207	.02057
	2.00	211	1.0806	.27282	.01878

Table 22

College Major Cyberbullying Level Independent Samples t Test

		Levene's Test							95% Confidence Interval	
		F	Sig.	*t*	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	Lower	Upper
Collage Major Mean	Equal Variances Assumed	.002	.967	-.02	38	.98	-.001	.03	-.055	.054
	Equal Variances Not Assumed			-.02	37	.98	-.001	.03	-.055	.054

Significant at the $p<.05$ level.

Interpretation**:** When the author evaluates the extent of emotional impact that one incident of cyberbullying has on the victim, in light of the tragedies that are befalling college campuses in the twenty-first century, it is clear that the criteria of repetition in the definition of cyberbullying must be eliminated. Young adults, on the college campus, need the support of administration, educators and counselors when cyberbullied – even if the incident only happens once.

In addition, data results do not support the concept of social dominance as an instigator for being a cyberbully. When young adults advocate for

themselves and stand up to the cyberbully, it is imperative that perpetrators be held accountable whether they "intended" to inflict pain or not.

Finally, when comparing the frequency and relationship of the participants' answers to the thirteen questions that *are* cyberbullying to the question that presented the currently accepted definition of cyberbullying, it is evident that college-aged individuals are not connecting the two. Therefore, for future research the definition should be standardized and presented in a way that may provide more consistent results when college-aged individuals are queried regarding "being cyberbullied."

Research Question Two

What instances of cyberbullying do undergraduate college students experience via social media?

Participants were queried regarding the extent of being cyberbullied and that of being a cyberbully based on the currently accepted definition of cyberbullying. To provide an understanding of the social medias being used, respondents were asked to indicate which technologies were involved in their experience of cyberbullying. Finally, respondents were asked to describe their emotions in relation to the events.

As noted in Table 23, a total of 9.9% of respondents had been cyberbullied one or more times. Those participants were then asked to indicate what technologies were used to perpetrate the cyberbullying. Interestingly respondents indicated cell phones (7.1%) as the highest percentage with

Facebook following at 5.9%. Twitter (1.8%), Skype (.7%), Chatroulette (.5), iChat and MySpace (.2%) were also indicated. No respondents had been cyberbullied by FourSquare. To determine if technologies were being utilized that were not listed, an "other" box was provided. Several other sites were noted: Bebo, imvu, CollegeABC, Google chat, and Tumblr.

Table 23

Frequency of Being Cyberbullied

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	360	82.2	89.3	89.3
	One time	23	5.3	5.7	95.0
	2 to 4 times	16	3.7	4.0	99.0
	5 to 7 times	1	.2	.2	99.3
	More than 7 times	3	.7	.7	100.0
	Total	403	92.0	100.0	
Missing	System	35	8.0		
Total		438	100.0		

Respondents also indicated the extent of feeling sad/hurt, angry, or scared after being cyberbullied. Table 24 indicates the frequencies reported. Of those who had been cyberbullied a total of 7.3% were sad or hurt, 9% were angry, and 5.5% were scared.

Table 24

Frequency of Emotional Impact of Being Cyberbullied

			Frequency	Percent	Valid Percent	Cumulative Percent
Feeling Hurt or Sad						
Valid	Not at all		11	2.5	25.6	25.6
	Slightly		5	1.1	11.6	37.2
	Moderately		10	2.3	23.3	60.5
	Very		8	1.8	18.6	79.1
	Extremely		9	2.1	20.9	100.0
	Total		43	9.8	100.0	
Missing	System		395	90.2		
Feeling Angry						
Valid	Not at all		3	.7	7.1	7.1
	Slightly		6	1.4	14.3	21.4
	Moderately		6	1.4	14.3	35.7
	Very		16	3.7	38.1	73.8
	Extremely		11	2.5	26.2	100.0
	Total		42	9.6	100.0	
Missing	System		396	90.4		
Feeling Scared						
Valid	Not at all		19	4.3	44.2	44.2
Missing	Slightly		10	2.3	23.3	67.4
	Moderately		7	1.6	16.3	83.7
	Very		3	.7	7.0	90.7
	Extremely		4	.9	9.3	100.0
	Total		43	9.8	100.0	
	System		395	90.2		
Total		438	100.0			

While many respondents indicated they were "not at all" emotionally impacted. Those who reported emotional pain offered the following comments (Note: all comments were copied without corrections to grammar or spelling).

"Once again, this has impacted my life because I am an education major and it is frustrating for me to have to explain myself that the facebook profile created of me is, in fact NOT me. There is a female with long black hair with my face cropped onto a girl wearing blue undergarments posing in a mirror. This upsets me because I have to allow the people I interview for to know that the girl posing under my name with my face is not me, also the people I babysit for. THIS IS EMBARRASSING!!!!!"

"I guess what I will say is that someone I haven't been friends with in A LONG TIME (years) posted photos of me with them that made it seem like we were a couple (but we never were even that good of friends let alone romantically involved in any way). And I looked really drunk in these pictures, like scary don't know what's going on drunk. I just don't understand why this person would put a picture up of me and him from so long ago. And then he has like a whole album full of creepy pictures of him with other girls and they're all the same type. It was creepy and scary and stalkerish."

"People attack the the physical appearance first because in our world, looks are very important. So people attacked my weight and they compared pictures of me when I was younger and recent pictures of me. They would talk about my eating habits and say that I was really big for my race. Which leads to the next topic for harassment, my ethnicity. I got called a lot of derogatory & racist names and people mocked me for my ethnicity. If I was talking to a different race, they'd claim I was dissing my own race which wasn't true. They mainly attacked me for my weight which lead to my bad eating habits now."

"As I said before a group of girls from the highschool I went to brought the issues to college. They harassed me with text messages. Talked about me on social networking sites. Threatened me over text messages. And then I was assaulted on campus. It impacted my life a lot. I had to attend court hearings. I felt afraid on campus for awhile. It added to my depression for a few months. I had to try to avoid this group of girls all around town."

"It was not a constant thing, but it sucked."

"It was someone I trusted very much and he took advantage of this trust. I'll never forgive him, and I'll never look at relationships with men the same way."

A second aspect of experiencing cyberbullying is that of being the bully. When queried if "while enrolled in college the respondents had engaged in

behavior online that fit the definition of cyberbullying," 7.1% of respondents (*n* = 31) indicated that they had cyberbullied others at least one or more times. Participants were then asked to select from a list of emotional responses how they felt about the event; they were instructed to select all that apply. The highest percentage (2.7%) of respondents stated they felt amused, 1.8% reported feeling in control or powerful, 1.6% felt like part of a group, 1.4% were not bothered by the incident, and 1.1% felt satisfied.

To establish an exhaustive list of emotions, the participants were also offered an "other" item to describe their feeling following the event. Ten respondents offered thoughts (as with previous quotes, these are pasted as they were typed without corrections):

"*felt a little bad"*

"i'm unsure of it qualifies as cyber-bullying, but an amusement of sort. the 'target' is a very close friend and i'm unsure if though unsolicited, the messags could be bullying."

"Bad afterwards"

"Angry"

"It was in a joking manner"

"sad because she used to be my best friend. but all of my friends hated her. i have since apologized"

"mostly I felt horrible after it happended"

"I felt like venting about the situation through status was inappropiate, even though I didnt mention names they still knew it about them and it I felt bad and had it removed for their sake"

"Remorseful"

"Slightly annoyed"

Interpretation**:** The level of emotional response to the event of cyberbullying combined with the knowledge that students are physically harming themselves and others due to bullying indicates a need for additional research to provide a better understanding of what college-aged individuals are experiencing.

Research Question Three

Is there a relationship between the extent that students use technology to communicate and the amount of cyberbullying experienced via social media?

Throughout research and in conversation the concerned educator, counselor, or parent questions what can be done to help prevent cyberbullying for the youth of today. In pondering this concern, the conversation oft turns to the use of technology. The solution, for many, is posed as youth "unplugging." It seems that decreasing the frequency of use of technology would be the logical choice in decreasing the amount of cyberbullying experienced. Thus, survey questions were offered to determine a relationship between the importance and frequency of using technology and events of being cyberbullied. Four areas of social media use were queried: the participants' importance of checking social media accounts, how often they log into social media, how many text or picture messages sent daily, and the time of day that they spent the most time logged on.

To the surprise of this analyst, as seen in the results in Table 25, minimal correlation is noted between the importance of use, time, or frequency that technology is used and being cyberbullied. Only three results indicated a

relationship: a small relationship (r = .10 to .29) was noted between a respondents ranking of how important it was to check social media accounts and being cyberbullied. These were: receiving unwanted, inappropriate messages that included too much private information about the senders body, sexual experience, or other exaggerated messages of affection or desire (r = .135); being teased or made fun of due to physical appearance, personality or intelligence (r = .103); and being blocked by others (r = .139). Additionally, a small relationship was noted between how often the participant logged into social media and being blocked by others (r = .145).

Table 25
Correlation Between Being Cyberbullied and Importance or Frequency of Using Social Media and Cell Phone (N=403)

		Importance of Checking SM	How Often Login to SM	# of Text or Pic Messages Daily	Time of Day Spend Most Time Logged On
Received Unwanted, Inappropriate Messages	Rho	.135**	.062	.036	-.039
	N	407	416	416	416
Received Unwanted, Pornographic Images	Rho	.061	-.039	-.031	-.083
	N	406	415	415	415
Replied Unknowingly to Someone Posing as Someone Else	Rho	.063	.006	.083	.016
	N	403	411	411	411
Facebook Friend "Friended" for Information	Rho	.012	-.027	.030	-.005
	N	401	409	409	409
Received Harassing or Threatening Messages	Rho	.006	-.040	.098*	.065
	N	398	406	406	406
Teased of Made Fun of Due to Physical Appearance, Personality or Intelligence	Rho	.103*	.065	.059	-.007
	N	395	403	403	403
Harassed Due to Sexuality	Rho	-.016	-.056	.073	-.050
	N	395	403	403	403

* $p < .05$
** $p < .01$
Interpretation Guidelines: Small r=.10 to .29; Medium r=.30 to .49; Large r=.50 to 1.0
(Cohen, 1988. pp 79-81).

Table 25

Correlation Between Being Cyberbullied and Importance or Frequency of Using Social Media and Cell Phone (N=403)

		Importance of Checking SM	How Often Login to SM	# of Text or Pic Messages Daily	Time of Day Spend Most Time Logged On
Target of Untrue Gossip or Humiliating Comments	Rho	.038	.024	.060	-.021
	N	395	403	403	403
Had Problems Due to Personal Information Shared w/o Consent	Rho	.036	-.017	.032	.021
	N	395	403	403	403
"Outed"	Rho	.012	-.019	.060	-.050
	N	395	403	403	403
Blocked by others	Rho	.139**	.145**	.086	-.001
	N	395	403	403	403
Private, Personal Images Shared w/o Consent	Rho	-.036	-.039	-.026	.043
	N	395	403	403	403
Other People Used Your Identity w/o Consent	Rho	-.045	.039	-.023	.035
	N	395	403	403	403
Been Cyberbullied	Rho	.043	-.018	.049	-.039
	N	395	403	403	403

* $p < .05$
** $p < .01$
Interpretation Guidelines: Small r=.10 to .29; Medium r=.30 to .49; Large r=.50 to 1.0
(Cohen, 1988. pp 79-81).
Medium and High results in bold.

Interpretation**:** This finding is deemed important when counseling individuals who are being cyberbullied to help them work through and deal with the situation. When advising youth, it is tempting to blame the use of the technology for the bad events that are occurring. Similar to blaming a knife or

gun for the death of a person, blaming the use of technology for events of cyberbullying is shortsighted. As noted in these results, there is minimal relationship between the participants' importance and use of technology and the events of cyberbullying. While it is true that "unplugging" will take the student away from the incident, it is not logical to tell a Millennial who has been immersed in technology since they were able to interact with society to remove it from their lives.

All individuals working with today's college students can gain from this finding. Concerned adults must work to determine methods for Millennials to deal with the events occurring via social media. In addition, the youth of today need to be educated in understanding the increased impact that *one* statement can make when hosted in technology. New communication models should be developed to help with this quest.

Hypothesis Three

H_3: College students who self-identify as a minority in sexual orientation (GLBT) will experience higher levels of cyberbullying in social media than those self-identified as heterosexual.

H_0: College students who self-identify as a minority in sexual orientation (GLBT) will experience the same levels of cyberbullying in social media than those self-identified as heterosexual.

The dearth of literature concerning cyberbullying experienced by gay, lesbian, bisexual, and transgender college students induced this hypothesis. Data

analysis was conducted with an independent samples *t* test to compare the means between sexual orientation and the questions that queried the extent to which respondents were cyberbullied. The questions utilized in gathering the cyberbullying data provided five selections regarding extent of cyberbullying: never, one time, two to four times, five to seven times, or more than seven times. To create a dichotomous variable, the responses were regrouped into "never (1)" and "one or more times (2)." In addition, participants were queried regarding sexual orientation based on four options: "straight," lesbian, gay, or bisexual. This variable was regrouped into a dichotomous set of heterosexual (1) and non-heterosexual (2) for data analysis.

A comparison of means for each cyberbullying question (see table 26) indicates a higher mean for non-heterosexuals than heterosexuals. Therefore an independent samples *t* test was analyzed for each question. As noted in Table 27, there was one significant difference noted for individuals who had been "outed" via social media: heterosexuals (M = 1.00, SD = .00) and non-heterosexuals (M = 1.14, SD = .36; t (34) = -2.38, p = .02. The magnitude of differences in the means (mean difference = -.143, 95%CI: -.265 to -.021 was small (eta squared = .01). This finding is reported yet not surprising due to the nature of the question. Individuals who are heterosexual are not "outed" in modern day society.

Table 26

Mean of Rate of Being Cyberbullied for Heterosexual (1) and Non-Heterosexual (2)

	Heterosexual (1) Non-Heterosexual (2)	N	Mean	Std. Deviation	Std. Error Mean
Received Unwanted, Inappropriate Messages	1.00	378	1.2989	.45840	.02358
	2.00	37	1.4324	.50225	.08257
Received Unwanted, Pornographic Images	1.00	378	1.1614	.36836	.01895
	2.00	36	1.1944	.40139	.06690
Replied Unknowingly to Someone Posing as Someone Else	1.00	374	1.1390	.34645	.01791
	2.00	36	1.2500	.43916	.07319
Facebook Friend “Friended” for Information	1.00	372	1.2285	.42043	.02180
	2.00	36	1.2500	.43916	.07319
Received Harassing or Threatening Messages	1.00	369	1.1762	.38147	.01986
	2.00	36	1.2500	.43916	.07319
Teased Due to Physical Appearance, Personality or Intelligence	1.00	367	1.1580	.36527	.01907
	2.00	35	1.1714	.38239	.06463
Harassed Due to Sexuality	1.00	367	1.0082	.09016	.00471
	2.00	35	1.0571	.23550	.03981
Target of Untrue Gossip or Humiliating Comments	1.00	367	1.1090	.31205	.01629
	2.00	35	1.1429	.35504	.06001
Had Problems Due to Personal Information Shared w/o Consent	1.00	367	1.1689	.37521	.01959
	2.00	35	1.2286	.42604	.07201
“Outed”	1.00	367	1.0000	.00000	.00000
	2.00	35	1.1429	.35504	.06001
Blocked by others	1.00	367	1.1744	.37996	.01983
	2.00	35	1.2857	.45835	.07748
Private, Personal Images Shared w/o Consent	1.00	367	1.1063	.30860	.01611
	2.00	35	1.2000	.40584	.06860
Other People Used Your Identity w/o Consent	1.00	367	1.0681	.25230	.01317
	2.00	35	1.1143	.32280	.05456
Been Cyberbullied	1.00	367	1.0954	.29412	.01535
	2.00	35	1.2286	.42604	.07201

Table 27

Non-Heterosexual Cyberbullying Level Independent Samples t Tests

	Levene's Test							95% Confidence Interval	
	F	Sig.	*t*	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	Lower	Upper
Inappropriate Messages	5.517	.019	-1.56	42.	.128	-.133	.086	-.307	.040
Porn Images	.961	.327	-.511	412	.610	-.033	.065	-.160	.094
Reply Unknown	9.845	.002	-1.47	39	.149	-.111	.075	-.263	.041
Friend FB	.319	.573	-.292	406	.771	-.022	.074	-.166	.123
Threatening Message	3.931	.048	-.974	40.	.336	-.074	.076	-.227	.079
Teased Appearance	.165	.685	-.206	400	.837	-.013	.065	-.141	.114
Harassed Sexually	24.57	.000	-1.22	34.	.230	-.049	.040	-.130	.032
Untrue Gossip	1.368	.243	-.606	400	.545	-.034	.056	-.144	.076
Problems Personal Info	2.704	.101	-.888	400	.375	-.060	.067	-.192	.072
Outed*	350.6	.000	-2.38	34.	.023*	-.143	.060	-.265	-.021
Blocked Online	7.786	.006	-1.39	38	.172	-.111	.080	-.273	.050
Photos Shared	9.148	.003	-1.33	37	.191	-.094	.070	-.236	.049
Used Identity	3.737	.054	-1.00	400	.314	-.046	.046	-.136	.044
Been Cyberbullied	18.38	.000	-1.81	37	.079	-.133	.074	-.282	.016

*Significant at the $p<.05$ level.

When responses were reviewed utilizing a crosstabs analysis (See Table 28) non-heterosexuals reported higher percentages of incidents of cyberbullying across each variable queried.

Table 28

Crosstabulation Comparison of Cyberbullying for Heterosexual and Non-heterosexuals (N = 438)

	Heterosexual*	Non-heterosexual*
Received Unwanted, Inappropriate Messages	29.9	43.2
Received Unwanted, Pornographic Images	16.1	19.4
Replied Unknowingly to Someone Posing as Someone Else	13.9	25
Facebook Friend "Friended" for Information	22.8	25
Received Harassing or Threatening Messages	17.6	25
Teased of Made Fun of Due to Physical Appearance, Personality or Intelligence	15.8	17.1
Harassed Due to Sexuality	.8	5.7
Target of Untrue Gossip or Humiliating Comments	10.9	14.3
Had Problems Due to Personal Information Shared w/o Consent	16.9	22.9
"Outed"	.0	14.3
Blocked by others	17.4	28.6
Private, Personal Images Shared w/o Consent	10.6	20
Other People Used Your Identity w/o Consent	6.8	11.4
Been Cyberbullied	9.5	22.9

* All number represent percent within group

Interpretation**:** As our youth leave the safe haven of home and venture onto the college campuses, it is essential that they are protected and provided the environment necessary for academic success. These results indicate a need for more research and again, a basis of understanding and acceptance to be provided in communications with all individuals.

Post Hoc Analysis

Although not originally hypothesized additional data were analyzed to compare with findings in past research that were deemed important to the general understanding of cyberbullying on the college campus. An independent samples *t* test to determine the difference between gender and cyberbullying was conducted. Descriptive statistics are provided in Table 29. As noted in table 30, an independent samples *t* test indicated a statistically significant difference between gender and cyberbullying: t (306) = -2.62, p = .009. An examination of the means revealed that females (M = 1.12) were cyberbullied more than males (M = 1.05). The magnitude of differences in the means (mean difference = -.075, 95%CI: -.132 to -.019 was small (eta squared = .02).

Table 29

Gender Descriptive Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Been Cyberbullied	Male	114	1.0526	.22428	.02101
	Female	289	1.1280	.33470	.01969

Table 30

Gender with Been Cyberbullied Level Independent Samples t Test

		Levene's Test							95% Confidence Interval	
		F	Sig.	*t*	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	Lower	Upper
Cyberbullied Mean	Equal Variances Assumed	22.3	.000	-2.2	401	.027	-.075	.034	-.142	-.009
	Equal Variances Not Assumed			-2.6	306	.009	-.075	.029	-.132	-.019

Significant at the $p<.05$ level.

Summary

This chapter discussed the research findings from a survey utilized to evaluate the impact of cyberbullying among undergraduate college students. Past research and the currently accepted definition for cyberbullying led this investigator to the theoretical base of Social Dominance Theory to determine if the cyberbully was intentionally working to dominate others as they perpetrate relational bullying via social media. Hypotheses one and two were posed to test that theory, and the hypotheses were not supported.

Additionally, the concept of repetition is strongly accepted in current literature when querying students regarding cyberbullying. The level of emotional impact experienced by undergraduate college students, following *one*

episode of cyberbullying is such that conscientious researchers must re-evaluate the definition and remove repetition as a qualifier.

In terms of sexual orientation, the third hypothesis was not supported. Despite the lack of a significant difference and the failure to reject the null hypothesis, a crosstabulation comparison indicating an increased frequency of cyberbullying for non-heterosexuals begs for attention. These differences as well as comparison of results with past research will be discussed in chapter five.

CHAPTER 5

SUMMARY, IMPLICATIONS AND CONCLUSIONS

Introduction and Purpose of the Study

This chapter is approached with all of the reverence and concern necessary when one is dealing with the emotions of youth. As a mother and aunt of college aged youth, this researcher is intimately aware of the impact the following discussion may have on the future understanding of cyberbullying and therefore, approaches the information with care. The following discussion is viewed through the lens of the researcher, a social media and communications expert.

Once viewed as a right of passage, with the adage "Sticks and stones can break my bones, but words will never hurt me," the actions of youth came into the forefront of adult consciousness in the 1970s when three youth committed suicide, in Sweden, after being bullied. Dan Olweus (1993) provided the seminal research into the behaviors and developed the current accepted definition of traditional bullying behavior.

The plethora of affordable communication technologies has catapulted this bullying behavior into cyberspace. The ability of twenty-first century youth to surreptitiously bully others via web-based communications and hand-held technologies has motivated many researchers to evaluate the extent of this behavior and its impact on the Millennials immersed in technology. The dearth

of peer-reviewed research articles addressing cyberbullying for the undergraduate college student combined with the increased emotional impact that past research noted when youth were cyberbullied provided the motivation for this research.

Based in the theoretical framework of the Social Dominance Theory, the investigation was focused on evaluating the current definition of cyberbullying. This definition, taken from the Olweus research of the twentieth century, was reviewed to determine if it remains relevant to determine the extent and emotional impact of relational bullying that twenty-first century students may experience when using social media.

In addition, past research indicated a relationship between the extent of use of technology and being cyberbullied. Today's youth have been weaned on technology. To ask them to "unplug" from the Internet may be as unrealistic as asking a baby-boomer to live without electricity. This author felt it was essential to evaluate this phenomenon to determine the extent of relationship between technology usage and cyberbullying.

Finally, the heartbreaking loss of life of a young freshman Rutgers University student, in 2010, has brought to the forefront the harmful aspect that cyberbullying may have on undergraduate college students who self-identify as being GLBT (Cloud, 2010). The scarcity of research focusing on this concern supported the need for further evaluation.

Interpretation of Results and Discussion

Research Question One with Supporting Hypotheses

The first research question focused on the necessity for a re-definition of cyberbullying based in empirical data. Much of past cyberbullying research on the undergraduate campus utilized the parameters created by Olweus that established traditional bullying as negative actions that are intentional and repeated to inflict harm on another person (1986, 1991, as stated in Olweus, 1993, p. 9). Researchers have called into question this definition and this author concurs (Abbott, 2011; Vandebosch & Van Cleemput, 2008).

Numerous data analyses were conducted to evaluate the terminology necessary to properly identify relational bullying behaviors experienced via the Internet and hand-held technologies. Crosstabulation data were analyzed to assess the necessity of repetition for emotional harm to occur for recipients of cyberbullying. Results from participants were compared between the frequency of the first thirteen questions (RBS) versus the "I have been cyberbullied" (CBR) response supported by the current definition of cyberbullying. In addition, one cannot overlook the emotional impact reported by participants when they were offered the opportunity to express ". . . more about your experience or feelings. What happened? How did it impact your life?"

Correlation analysis was conducted to consider the relationship between the two groups: thirteen questions relating to relational bullying (RBS) and the

one “I have been cyberbullied” question (CBR) presented with the definition. Do students consider them the same thing?

The Social Dominance Theory was utilized to determine if participants who cyberbully others do so with the desire to dominate. The intent to control or dictate to others would provide some understanding of the actions of the cyberbully and further assist the author in the quest to standardize a definition for future researchers. Two supporting hypotheses were analyzed to evaluate the factors that have been established as higher in SDO with the actions of being a cyberbully.

When are negative, hurtful, threatening or mean comments hosted on the Internet or sent via hand-held technology cyberbullying? When one reviews the results noted in this study, it is impossible to overlook the 25 to 88.6 percent of respondents (Table 12) who experienced feeling hurt, sad, angry, or scared after being cyberbullied *one* time. Whether being stalked via Facebook friends or sent harassing, threatening messages participants are feeling emotional upset due to these events. Respondents who report feeling “*very hurt,” “scared,”* or those who have an incident that *“ruined my trust . . . “* must be heard and understood.

Up to thirty percent of respondents (*n* = 130) had experienced cyberbullying at least once via web-based communications and hand-held technologies (Table 13). The impact of cyberbullying only *one* time is widespread. Young adults, on the college campus need the support of

administration, counselors, and educators based on the emotional impact the cyberbullying has on them – not dependent on the act being repeated.

Correlation analysis was completed to better understand the relationship between the RBS scale with the direct CBR question. The small positive effect size between RBS and CBR on the majority of items supports Willard (2007) classifications of the ways cyberbullying occurs that were utilized in creating this survey. However, if the two groups were synonymous, the correlation would be much stronger, if not a perfect +1.0. Therefore, one must consider the aspects of the cyberbullying definition that prohibited participants from saying yes to being cyberbullied when they had already expressed being emotionally impacted via the RBS items.

Hypotheses one and two were presented to evaluate the impact of SDO. Pratto et al. (1994) noted that SDO "predisposes people to believe in legitimizing myths and discriminatory policies" (p. 755). This researcher posits that if cyberbullying was based in the intent to harm others, individuals high in SDO would be more likely to be the bully.

The first hypothesis indicated that men would report a higher level of cyberbullying others than women. Past research has indicated that men are higher in SDO than women (Caricati, 2007; Dambrun, Duarte, & Buimond, 2004; Foels & Reid, 2010; Pratto et al., 2006; Pratto, et al., 1994; Zakrisson, 2008).

Crosstabulation data of gender response to having cyberbullied others indicated males reporting a higher percentage (Male = 9.6%; Female = 6.9%).

The means were compared between females (M = 1.07, SD = .25) and males (M = 1.10, SD = .3) and a difference was noted. An independent samples *t* test showed no significant difference t (401) = .925, p = .36 (Table 15). Leenaars and Rinalid (2010) support this finding with their study of indirect aggression without significant gender differences. Akbulut and Eristi (2011) contradict this research with males reported to be significantly more likely to be the bully.

The second hypothesis evaluated the level of being a cyberbully between HE Majors and HA Majors. When assessing post-college career choices for undergraduate college students' results indicated that those in *hierarchy enhancing* majors (HE) had higher SDO than those in *hierarchy attenuating* (HA) majors (Pratto et al., 1994; Sidanius et al., 2006).

Crosstabulation data compared major with being a cyberbully and indicated an equal percentage of HE Majors (8%) with HA majors (8.1%). The independent samples *t* test (See Table 18) was conducted to compare the cyberbullying occurrences for HE and HA Majors. The means for both majors are the same; therefore, no significant difference was possible. This indicated a failure to reject the null hypothesis; the research hypothesis is probably false.

While not the desire of this author to use emotionally charged current events, it seems one would be remiss in not presenting the data available from the death of Tyler Clementi (Cloud, 2010). In August 2010, two young men left home to step on the college campus for the first time, to forever have their lives changed. Though we will never know the thoughts of Tyler Clementi in detail, his

suicide shortly after learning that Darun Ravi used his webcam to spy on Clementi speaks volumes (Sloan, 2012).

This single incident, on September 19, 2010, changed both lives forever. As roommates, Clementi asked Ravi to leave their dorm room that evening when Clementi was entertaining a male friend. Ravi remotely accessed the webcam on his computer, left in the room, to view Clementi and his guest. Ravi was interviewed on abc20/20 and expressed his thoughts regarding the incident (Sloan, 2012).

Following the webcam viewing, Ravi tweeted to all of his friends. Ravi's response, when asked why he sent it is profound, "I wanted to let all my friends from back home know. In my head, that's just how twitter – we can still all be involved with each other's life."

The following day, Clementi again asked for the room alone. Ravi tweeted, "Anyone with iChat, I dare you to video chat me between 9:30 and 12. Yes, it's happening again." The interviewer asked Ravi directly if there was going to be a viewing party. Ravi stated, "No, that was just me fooling around with my friends. Looking back, I was very self-absorbed with the whole thing. It was very much what I was thinking, how I was reacting to the whole thing. It was never, what if Tyler finds out, how is he going to feel about it" (Sloan, 2012).

Ravi stated, "what most people type is wrapped with seven layers of sarcasm and another layer of irony." Ravi was offered a plea bargain to avoid trial. The plea bargain required Ravi to admit to hating gays. Ravi adamantly

refused, “I had to go up there in front of the judge under oath and say that I did this because I have this hate for gay people. That’s just something I could never do. The truth is we’re just a bunch of kids talking, none of us were expressing serious feelings that we had.” Whether Ravi intended to be a cyberbully or not, two lives have been forever changed (Sloan, 2012).

The author acknowledges that cyberbullying may be an intentional act, deliberately conducted to hurt or scare the recipient. However, these findings indicate that the current use of the traditional bullying definition (Olweus, 1993) to understand the impact of bullying behaviors in cyberspace is not comprehensive. This researcher feels that the necessity to re-define cyberbullying is at the forefront of concern to assure that all acts of cyberbullying; whether intentional and repeated or a single, random event; are recognized. This will allow victims to advocate for themselves and receive the help necessary.

This concern is supported by qualitative research conducted by Baldasare et al. (2012) with most participants stating that the receiver’s interpretation of the event should provide the defining factor. One participant stated, “ I think maybe the definition needs to capture, like, really emphasize the way the recipient feels, not necessarily the way the person intended it” (Baldasare et al., 2012, p. 137).

Spears et al. (2009) utilized triangulation of qualitative data to evaluate the human dimensions of cyberbullying. Participants reported cyberbullying as

looking like “ostracism, exclusion, and intimidation” (p. 192) and sounding “cruel, vicious, obscene, torturous, and powerful” (p. 192). In addition, cyberbullying felt “unnerving, demeaning, inescapable, and unsafe” (p. 193).

Vandesbosch and Van Cleemput (2008) also utilized qualitative research with 53 focus groups. When asked to define cyberbullying, the participants noted events such as spreading personal conversations, gossip, manipulating and sending personal pictures, sending messages with sexual comments, or humiliating someone online (p. 500).

This study garnered expressions of emotions that included embarrassment, creepy, scary, stalkerish, derogatory, racist, anger, hurt, and frustrating. Therefore, the following definition is proffered:

> Cyberbullying is the use of web-based communication media or hand-held technologies by an individual or group to deliver slanderous, harassing, demeaning, obscene, racist or other offensive messages, images, or video either directly or indirectly that result in emotional harm to the target of the communication.

Research Question Two

The second focus of this study was to investigate the extent of cyberbullying reported. The scarcity of cyberbullying research that has examined undergraduate college students lends to the necessity of this data.

When provided the definition of cyberbullying, based in Olweus' definition including intent and repetition, this research indicated 9.9% of respondents responded they had been cyberbullied at least one time. This result is supported by research by Englander et al (2009) with 8% of respondents being cyberbullied while at college. Smith et al. (2012) reported higher incidents of 16.7%.

Additionally, the degree that undergraduate college students had cyberbullied others was analyzed with 7.1% of respondents having cyberbullied others one or more times. Abbott (2011) supports these results with 7% of respondents as cyberbullies. However, the Abbott survey queried events that "ever had been or ever had experienced" and did not limit to college or adulthood (p. 71). Englander et al. (2009) investigated events exclusive to college and findings indicated a lower 3% of participants reported cyberbullying others.

Research Question Three

When an individual reports being cyberbullied, the first line of advice may be to remove the possibility by staying offline. The third question was posed to determine the relationship between the extent of technology use with being cyberbullied. Past research, based in Turkey, had indicated a positive significant association between frequency of use and problems with bullies (Akbulut et al., 2010a). This author was interested if the American impact would be similar.

Surprisingly, correlation analysis between being cyberbullied on any of the fourteen questions (RBS and CBR) and the participants' importance of checking social media, frequency of log in to social media, number of text or picture messages sent daily, or time of day most often logged on did not indicate a strong relationship.

Ellis (2010) offers caution in the interpretation of effect sizes, or "magnitude of the result as it occurs" (p. 4), to understand the importance of context. When viewed in the right context, Ellis contends that even small effects may provide meaning. Four examples of this are provided. Small effects can be important if they: "trigger big consequences, change the perceived probability that larger outcomes *might* occur, accumulate into larger effects, or lead to technological breakthroughs" (p. 37 – 38). The concept of a small effect accumulating applies at this time.

An analogy of the effect of batting skill of one player influencing larger outcomes can easily be juxtaposed to this research concern. Abelson (1985, p. 133; as quoted in Ellis, 2010, p. 38) indicated that team success is influenced by batting skill even if the individual performance is pitifully small. "the effects of skill cumulate, both within individuals and for the team as a whole." This author proposes that substituting "skill" with cyberbullying – "the effects of cyberbullying cumulate . . . " provides the proper level of caution when interpreting this result.

Telling Millennials to unplug or avoid using the Internet is not a reasonable approach as the only method of dealing with issues of cyberbullying. While it is not the technology that is to blame, it is essential that our society communicate about the impact of words that are used and their method of delivery. When the relationship between Clementi and Ravi became strained following the incident with the webcam, Ravi chose to text Clementi – despite living in the same room with him. Ravi's closing statement from the interview sums up one essential aspect of what counselors, educators, and parents need to encourage for today's youth, "I just wish I had talked to him more . . . ." (Sloan, 2012).

Hypothesis Three

This hypothesis compared the extent of cyberbullying reported by heterosexuals and non-heterosexuals. The independent samples *t* test results did not support rejecting the null hypothesis. To the best of this author's knowledge, no previous research has analyzed this information via parametric testing.

Crosstabulation data analysis indicated a higher percentage of cyberbullying for each of the fourteen cyberbullying areas queried for non-heterosexuals (Table 25). Cyberbullying was reported by between .8 to 29.9% of heterosexuals, while 5.7 to 43.2% of non-heterosexuals experienced cyberbullying. These findings are supported by past research by Hoff and Mitchell (2009) and Finn (2004).

Post Hoc Analysis

Previous research has reported differences in the incidents of cyberbullying by gender. An independent sample *t* test was conducted. A statistically significant difference was noted: t (306) = -2.62, p = .009. An examination of the means revealed that females (M = 1.12) were cyberbullied more than males (1.05). These results are disputed by Akbulut et al (2010a), Akbulut et al. (2011), Aricak et al (2008), and Newman et al. (2010) all that found a significantly higher number of males cyberbullied than females.

Future Research

The dearth of literature regarding the bona fide concern of the extent of cyberbullying on college campuses lends to a call for any future research established in theory and specific to the college students' experience. Specific to this study, several areas of future research are presented.

Confident in the re-definition of cyberbullying, this author none-the-less would recommend future research based in the Social Dominance Theory. This initial study would benefit from further evaluation in the relationship between SDO and cyberbullying. Correlation analysis of the new definition of cyberbullying with the thirteen RBS would allow researchers to further delineate the experience of cyberbullying and refine the definition if needed.

Additionally, one can look to history for the second recommended area of future research. In 1982, the suicide of three boys in Norway led to a nationwide research project. The future of our society depends on more

knowledge of what cyberbullying is, why it happens, and how it should be approached. A nationwide research study is recommended.

Also necessary are research studies to advance the awareness of what is happening to non-heterosexuals as they use web-based communication or hand-held technologies to communicate. Additional evaluation of the relationship between the amount of technology use and cyberbullying is also recommended.

Finally, while the postpositivist paradigm of quantitative research is essential to provide researchers the ability to quantify results and explore relationships and cause-effect phenomena, it is through the *emic* view that one can truly discover the meaning of the experience being analyzed. Future qualitative studies, focused on the cyberbully, are imperative to understand the "why" and uncover true meaning and ability to work with the youth of the twenty-first century and help them thrive in their web-based worlds (Bloomberg and Volpe, 2008).

Limitations

There are several limitations to this study. The data were gathered from one undergraduate college in northwestern Pennsylvania. While the study was designed with a priori power analysis to allow generalization regarding that specific college campus, it does not provide the ability to generalize to other college students.

When data were analyzed, only those results reported by traditional undergraduate college students were considered. This precludes knowledge of the non-traditional college student or of those under the age of eighteen.

The study was distributed utilizing Qualtrics™ online survey hosting platform. While this standardized the distribution, it created the limitation of self-reported data in two areas. First, one can only trust that the individuals were reporting events from their lives honestly and without exaggeration. A second limitation arose from the offer of a free iPad drawing for participants. While deemed essential to obtain the level of participation necessitated via a priori power analysis, one must consider the limitation of participants who rushed through the questions to enter the drawing.

Finally, this study consists of an imbalance of men (29.5%) and women (70.5%). A second demographic area of limitation is ethnicity or culture. Over 84% of respondents self-reported as White/Caucasian, which leaves an under-representation of other ethnicities.

Conclusion

This area of research brings angst to the author. However, it is through research that change can occur and therefore the benefits of gathering and understanding the data far outweigh the costs.

As society moves forward, it is through the education of our youth regarding these new communication challenges and how to deal with them that the future will be improved. Cyberbullying is not old wine in a new bottle. It is a

new challenge that must be addressed as such with a new definition and education for Millennials.

One method proposed by this author would be through the use of college curriculum to provide a required, hybrid college communication course to address communicating with technology and doing so with decency. This course would encompass interpersonal, intercultural, and social media communication theories to provide a basis for the orientation and integration of social media ethics and etiquette in curriculum, lifestyle, and in business and career.

Research conducted by Kenworthy et al. (2102) provided the second consideration. A service-learning platform, utilized to educate undergraduate college students while working with secondary students, to advance their knowledge of how to recognize, avoid, and address cyberbullying should be considered as a vital part of the undergraduate college experience.

In closing, this author sincerely hopes that all who read this study benefit. No more powerful words can be reiterated than those of Ravi, "I just wish I had talked to him more . . . " (Sloan, 2012).

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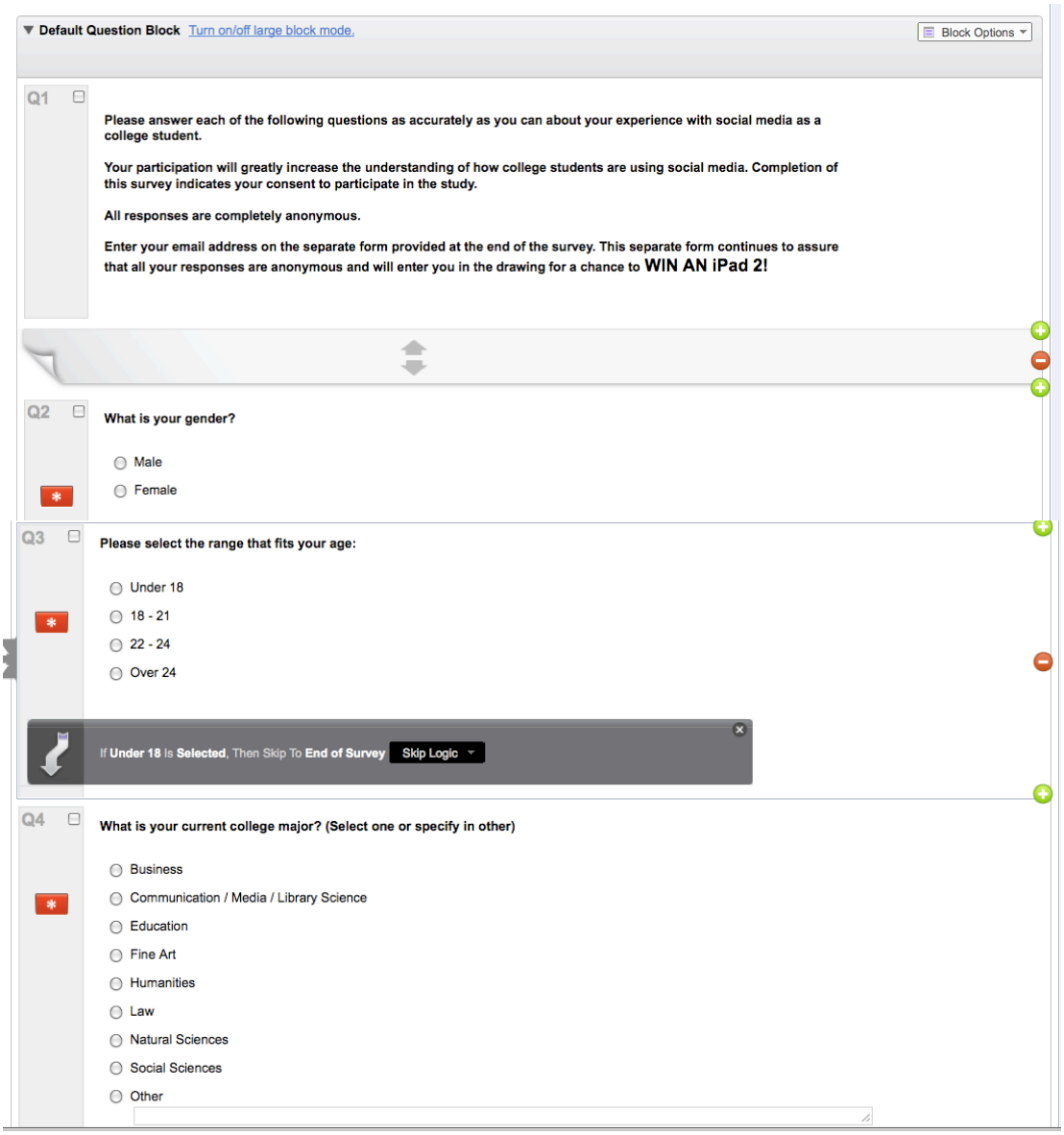
APPENDICES

Appendix A: Screen Shots of Final Qualtrics™ Survey



Q5 **What is your ethnicity / culture? (choose all that apply)**

- ☐ White / Caucasian
- ☐ Hispanic
- ☐ Black / African American
- ☐ Asian
- ☐ Native American
- ☐ Other

Q6 **I describe my sexual orientation as:** *

- ○ Straight
- ○ Lesbian
- ○ Gay
- ○ Bisexual

Q7 **What option best describes the area where you live when not at college?**

- ○ Rural
- ○ Town or Village (Areas like Indiana, Lansdale, Pottstown, or Carlisle)
- ○ City (Areas like. New Castle, Easton, Johnstown)
- ○ Big City (Areas like. Erie, Bethlehem, Altoona, Lancaster)
- ○ Major Metropolis (Areas like. Pittsburgh, Philadelphia, NYC)

Q8 **Where are you living this college semester?**

- ○ In on-campus dormitory or apartment
- ○ Off-campus but not with family
- ○ At home with family

Q9 Please Rank each of the following regarding your experience with social media **during your time as a college student**

All answers are anonymous. Completion of the survey indicates your consent of participation.

FOR THE PURPOSE OF THIS RESEARCH SOCIAL MEDIA IS DEFINED AS:

• Internet based communication media, such as Facebook, Twitter, Four Square, MySpace, email, AIM, Skype, iChat, ooVoo, Chatroulette etc.

• Cell phones (voice, texting, sexting, picture messaging, etc.)

Q10 **How important is it for you to check your social media accounts?**

	Not at all important	Somewhat Unimportant	Somewhat Important	Extremely Important
Select the corresponding answer	○	○	○	○

Q11 **Please indicate how often you log into your social media on average** *

- ○ I don't use social media
- ○ Hardly ever
- ○ Once a day
- ○ Several times a day
- ○ More than once every hour

Q12

About how many text or picture messages do you send a day with your cell phone

- None
- 1 - 25
- 26 - 50
- 51 - 150
- 151 - 250
- More than 250

Q13

What time of day do you spend the most time logged on?

- Morning (6am - before noon)
- Midday (noon - 4pm)
- Evening (after 4 - but before 10pm)
- Late night / early morning (after 10pm but before 6am)
- Other

Q14

While at college have you received unwanted, inappropriate messages that included too much private information about the senders body, sexual experience or other exaggerated messages of affection or desire?

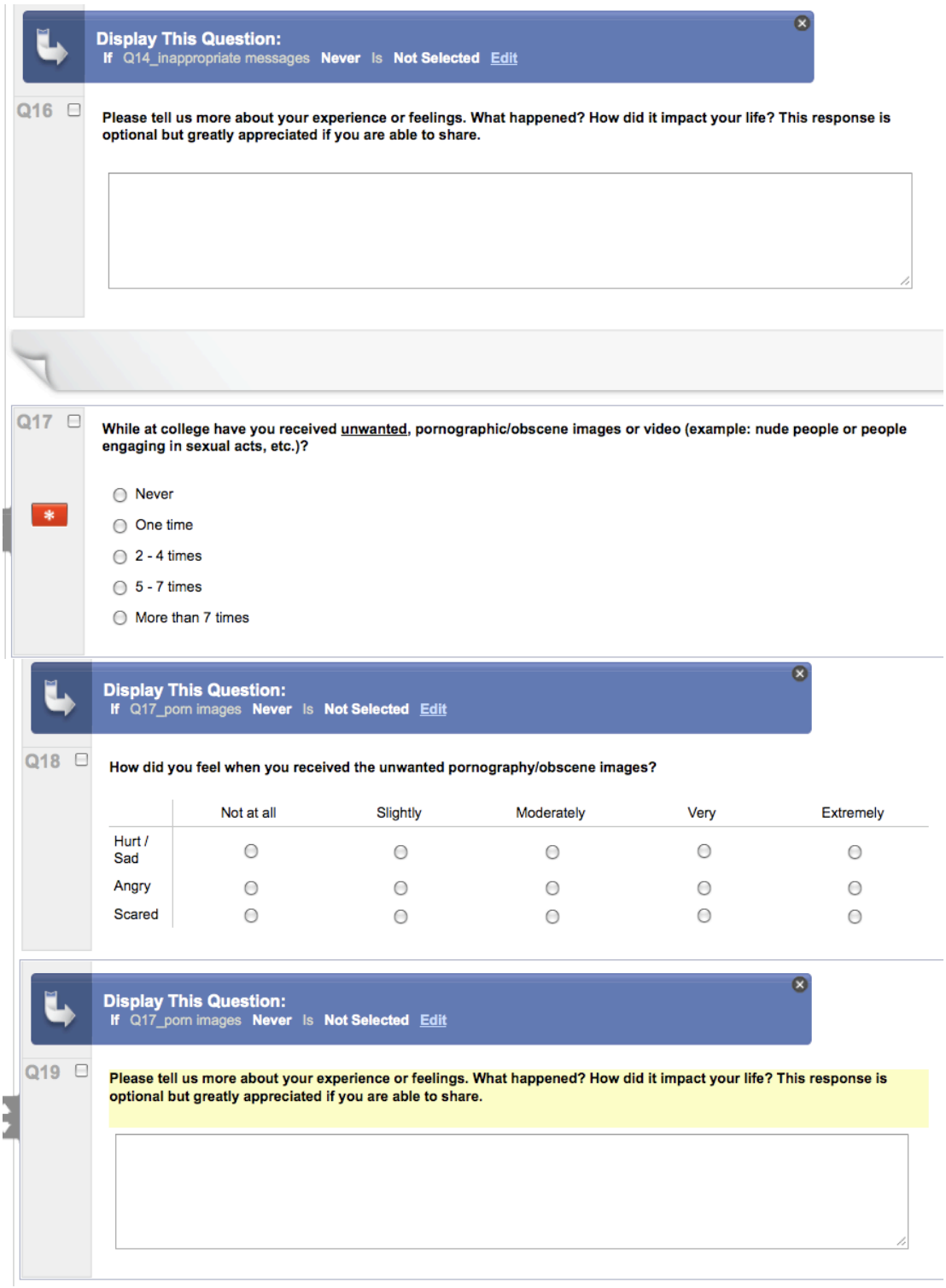
- Never
- One time
- 2 - 4 times
- 5 - 7 times
- More than 7 times

Display This Question:
If Q14_inappropriate messages **Never** Is **Not Selected** Edit

Q15

How did you feel when you received the message?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○


Display This Question:
If Q14_inappropriate messages Never Is Not Selected Edit
Q16
Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.
Q17
While at college have you received unwanted, pornographic/obscene images or video (example: nude people or people engaging in sexual acts, etc.)?
Never
One time
2 - 4 times
5 - 7 times
More than 7 times
Display This Question:
If Q17_porn images Never Is Not Selected Edit
Q18
How did you feel when you received the unwanted pornography/obscene images?
Not at all
Slightly
Moderately
Very
Extremely
Hurt / Sad
Angry
Scared
Display This Question:
If Q17_porn images Never Is Not Selected Edit
Q19
Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q20

While at college have you replied to social media messages from an individual or group pretending to be someone else without knowing it was not that person?

- ○ Never
- ○ One time
- ○ 2 - 4 times
- ○ 5 - 7 times
- ○ More than 7 times

Display This Question:
If Q20_Reply SM from unknown **Never** Is **Not Selected** Edit

Q21

How did you feel after replying to the message?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○

Display This Question:
If Q20_Reply SM from unknown **Never** Is **Not Selected** Edit

Q22

Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q23

While at college have you had someone "friend" a Facebook friend of yours to get pictures or personal information about you?

- ○ Never
- ○ One time
- ○ 2 – 4 times
- ○ 5 – 7 times
- ○ More than 7 times

Display This Question:
If Q23_Friend_FB **Never** Is **Not Selected** Edit

Q24

How did you feel when you found out someone friended a friend for that reason?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○

Display This Question:
If Q23_Friend_FB **Never** Is **Not Selected** Edit

Q25

Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q26

While at college have you received harassing or threatening messages through social media?

- ○ Never
- ○ One time
- ○ 2 – 4 times
- ○ 5 – 7 times
- ○ More than 7 times

Display This Question:
If Q26_receive harass/threaten message **Never** Is **Not Selected** Edit

Q27

How did you feel after getting the threatening message?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○

Display This Question:
If Q26_receive harass/threaten message **Never** Is **Not Selected** Edit

Q28

Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q29

While at college have you been teased or made fun of with social media because of your physical appearance, personality, and /or intelligence?

- Never
- One time
- 2 – 4 times
- 5 – 7 times
- More than 7 times

Display This Question:
If Q29_teased appearence, personality, intelligence **Never** Is **Not Selected** Edit

Q30

How did you feel after being made fun of or teased?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad					
Angry					
Scared					

Display This Question:
If Q29_teased appearence, personality, intelligence **Never** Is **Not Selected** Edit

Q31

Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q32

While at college have you been harassed or made fun of with social media because of your sexuality?

- ○ Never
- ○ One time
- ○ 2 – 4 times
- ○ 5 – 7 times
- ○ More than 7 times

Display This Question:
If Q32_harassed sexuality **Never** Is **Not Selected** Edit

Q33

How did you feel after being made fun of or harassed?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○

Display This Question:
If Q32_harassed sexuality **Never** Is **Not Selected** Edit

Q34

Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q35

While at college have you been the target of on-line social conversations or postings that included untrue gossip or humiliating comments about you?

- ○ Never
- ○ One time
- ○ 2 – 4 times
- ○ 5 – 7 times
- ○ More than 7 times

Display This Question:
If Q35_target untrue gossip/humiliating comments **Never** Is **Not Selected** Edit

Q36

How did you feel after being a target of untrue gossip or humiliating comments?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○

Display This Question:
If Q35_target untrue gossip/humiliating comments **Never** Is **Not Selected** Edit

Q37

Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q38

While at college have you had problems due to personal information shared about you without your consent?

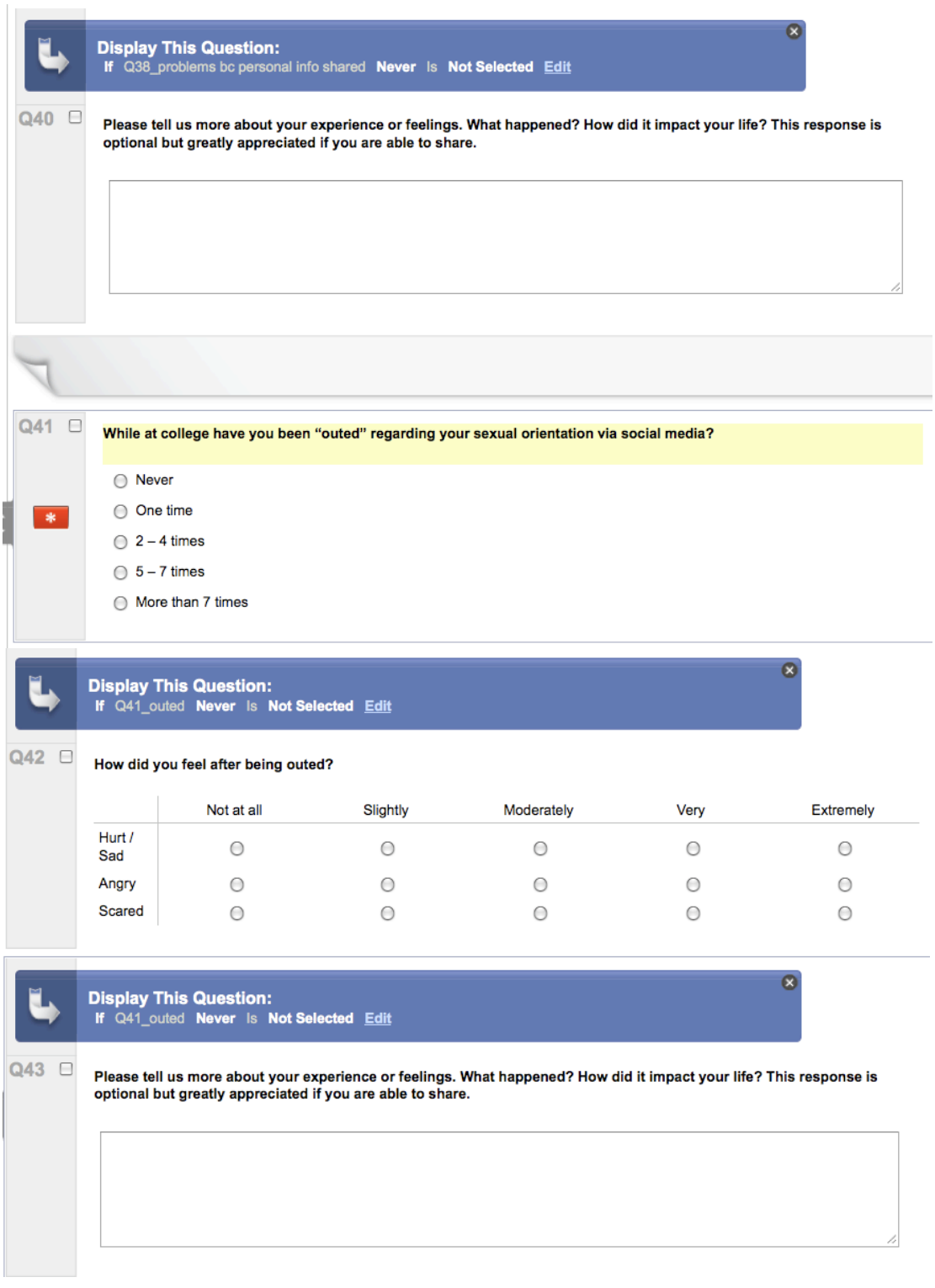
- ○ Never
- ○ One time
- ○ 2 – 4 times
- ○ 5 – 7 times
- ○ More than 7 times

Display This Question:
If Q38_problems bc personal info shared **Never** Is **Not Selected** Edit

Q39

How did you feel when you discovered that personal information was shared without your consent?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○


Display This Question:
If Q38_problems bc personal info shared Never Is Not Selected Edit
Q40
Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.
Q41
While at college have you been "outed" regarding your sexual orientation via social media?
Never
One time
2 – 4 times
5 – 7 times
More than 7 times
Display This Question:
If Q41_outed Never Is Not Selected Edit
Q42
How did you feel after being outed?
Not at all
Slightly
Moderately
Very
Extremely
Hurt / Sad
Angry
Scared
Display This Question:
If Q41_outed Never Is Not Selected Edit
Q43
Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q44

While at college have you been blocked by others in on-line discussions / postings to prevent you from commenting?

- Never
- One time
- 2 – 4 times
- 5 – 7 times
- More than 7 times

Display This Question:
If Q44_blocked online to prevent comment **Never** Is **Not Selected** Edit

Q45

How did you feel after being blocked?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○

Display This Question:
If Q44_blocked online to prevent comment **Never** Is **Not Selected** Edit

Q46

Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q47

While at college have you had private, personal photographs and/ or videos shared in social media without your consent?

- Never
- One time
- 2 – 4 times
- 5 – 7 times
- More than 7 times

Display This Question:
If Q47_photos/video shared w/o consent **Never** Is **Not Selected** Edit

Q48

How did you feel after having the images or video shared?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○

Display This Question:
If Q47_photos/video shared w/o consent **Never** Is **Not Selected** Edit

Q49

Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q50

While at college have other people used your identity within social media to speak with others without your consent?

- ○ Never
- ○ One time
- ○ 2 – 4 times
- ○ 5 – 7 times
- ○ More than 7 times

Display This Question:
If Q50_used identity w/o consent **Never** Is **Not Selected** Edit

Q51

How did you feel when you found out someone used your identity?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○

Display This Question:
If Q50_used identity w/o consent Never Is Not Selected Edit

Q52

Please tell us more about your experience or feelings. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.

Q53

Recently, a lot of news has covered events of cyberbullying in colleges.

Please answer the following two questions regarding your personal experience as a college student.

CYBERBULLYING IS CURRENTLY DEFINED AS:

Social media and/or cell phones, used to deliberately and repeatedly deliver slanderous, harassing, obsessive or obscene messages that result in harm to the recipient

Q54

Have you been cyberbullied during your time at college?

- Never
- One time
- 2 – 4 times
- 5 – 7 times
- More than 7 times

Display This Question:
If Q54_been cyberbullied Never Is Not Selected Edit

Q55

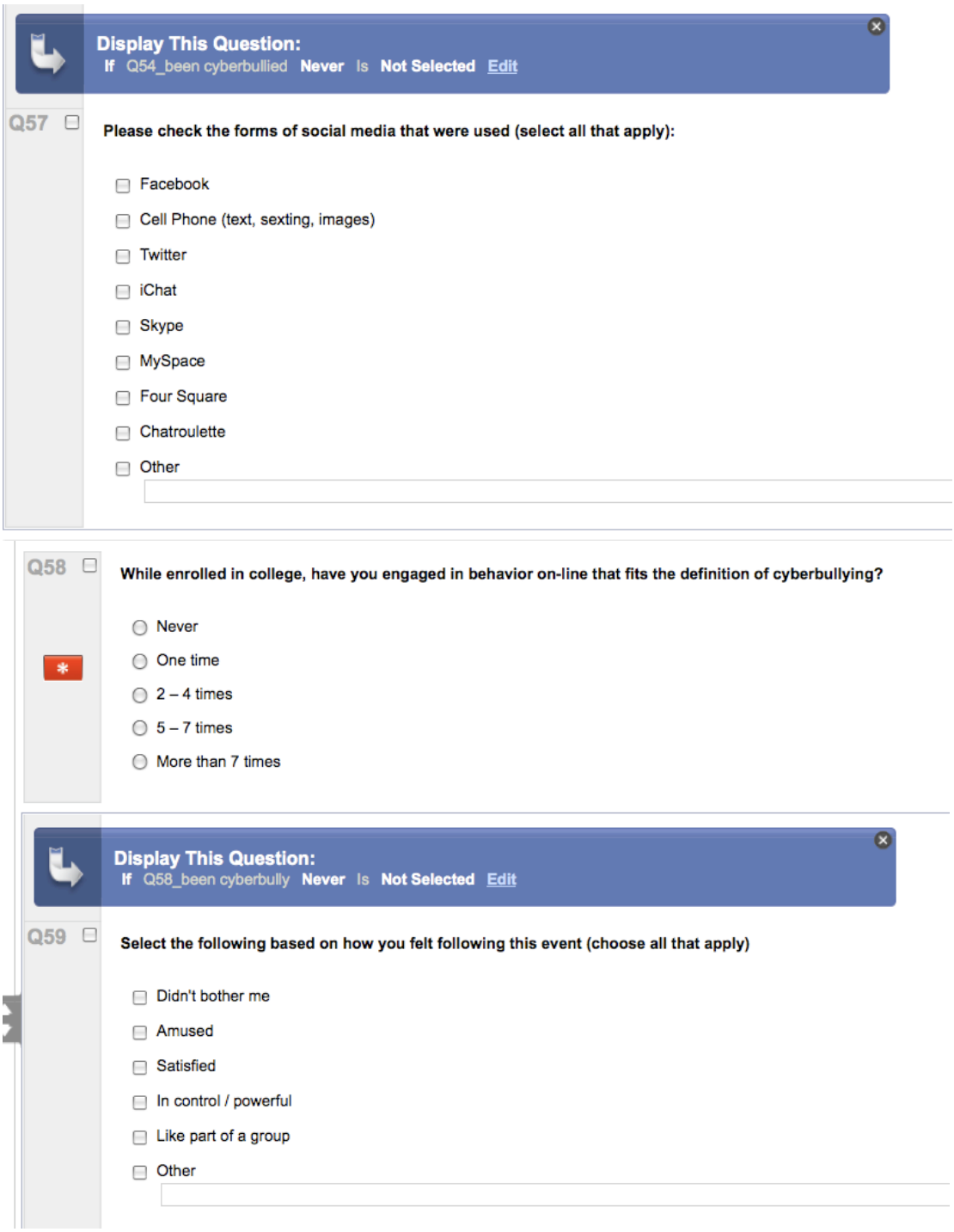
How did you feel after being cyberbullied?

	Not at all	Slightly	Moderately	Very	Extremely
Hurt / Sad	○	○	○	○	○
Angry	○	○	○	○	○
Scared	○	○	○	○	○

Display This Question:
If Q54_been cyberbullied Never Is Not Selected Edit

Q56

Please tell us more about your experience or feelings after being cyberbullied. What happened? How did it impact your life? This response is optional but greatly appreciated if you are able to share.


Display This Question:
If Q54_been cyberbullied Never Is Not Selected Edit
Q57
Please check the forms of social media that were used (select all that apply):
Facebook
Cell Phone (text, sexting, images)
Twitter
iChat
Skype
MySpace
Four Square
Chatroulette
Other
Q58
While enrolled in college, have you engaged in behavior on-line that fits the definition of cyberbullying?
Never
One time
2 – 4 times
5 – 7 times
More than 7 times
Display This Question:
If Q58_been cyberbully Never Is Not Selected Edit
Q59
Select the following based on how you felt following this event (choose all that apply)
Didn't bother me
Amused
Satisfied
In control / powerful
Like part of a group
Other

Display This Question:
If Q58_been cyberbully **Never** Is **Not Selected** Edit

Q60

Please check the forms of social media that you used (select all that apply):

- [ ] Facebook
- [ ] Cell Phone (text, sexting, images)
- [ ] Twitter
- [ ] iChat
- [ ] Skype
- [ ] MySpace
- [ ] Four Square
- [ ] Chatroulette
- [ ] Other

Q61

Thank you for your time!

This survey, being conducted to fulfill PhD requirements at Indiana University of PA, does not qualify me to help with issues of social media usage.

The following services are available at IUP:

Indiana University of Pennsylvania's Counseling Services are available to all IUP students. The office, located Suites on maple East, G31, 901 Maple St., Indiana, PA. Phone 724-357-2621. The office is available Monday through Friday from 8:00 a.m. to 4:30 p.m.

Indiana University of Pennsylvania Office of Public Safety oversees the university police and campus safety offices. People who wish to report a crime or who need assistance can go to the office at University Towers, 850 Maple St., Indiana, PA or phone 724-357- 2141, 24 hours a day, seven days a week.

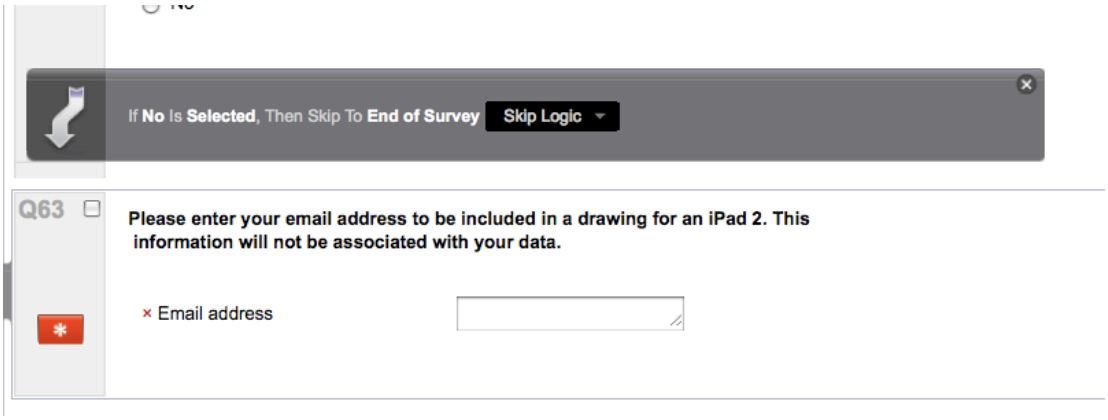
The next section provides the opportunity to enter the drawing for a chance to win the Apple iPad2 ® being given away in appreciation of your help.

If you have any questions about this study, please contact Carol at jqtq@iup.edu

Q62

Do you want to participate in the drawing to receive the iPad 2?

- ( ) Yes
- ( ) No


If No Is Selected, Then Skip To End of Survey
Skip Logic
Q63
Please enter your email address to be included in a drawing for an iPad 2. This information will not be associated with your data.
× Email address

Appendix B: Pilot Survey

☐ PLEASE CHECK THIS BOX AND DO NOT COMPLETE THE SURVEY IF YOU HAVE ALREADY PARTICIPATED IN ANOTHER CLASS.

- **Please answer each of the following questions as accurately as you can.**
- **For those in which multiple responses are provided, you need only fill in the appropriate response(s) for you.**
- **For the others, please place your answer in the blank space provided for each.**

1. **I am** a _____ female _____ male.

2. **My age is, please check one:** _____ 18 – 24 _____ 25 & above

3. **During this college semester I am living: Please check one**

_____ At home with parent/guardian

_____ In campus housing

_____ Off campus but not at home

4. **How do you describe yourself, please check one**:

_____ Asian _____ Hispanic _____ Black

_____ Indian _____ White _____ Other

5. **My school grade average is usually, please check one:**

_____ A - B range _____ B - C range _____ C - D range

_____ Lower that D range

6. **I use technology (computer, cell phone, PDA, etc.), please check one:**

_____ Less than an hour a day

_____ Between 1 and 2 hours a day

_____ Between 3 and 4 hours a day

_____ More than 4 hours a day

I understand that completion of this survey implies informed consent and voluntary participation.

1) Have you heard of students at East Stroudsburg University using technology to bully/harass other students, **if yes please check all that apply:**

____ E-Mail

____ Cell phones [text, pictures, video or messages]

____ Video cameras, Web cam

____ AIM

____ Facebook

____ My Space

____ Blogging

____ Twitter

____ Chat Rooms

2) I have experienced cyberbullying at ESU (e.g. email, cell phones, video/Web cams, AIM, Facebook, My Space, Blogging, Twitter, Chat Rooms, other) **If no; please go to question #6.**

_____ Yes

_____ No

3) **If yes**, I experienced cyberbullying via (**check all that apply**):

____ E-Mail

____ Cell phones [text, pictures, video or messages]

____ Video cameras, Web cam

____ AIM

____ Facebook

____ My Space

____ Blogging

____ Twitter

____ Chat Rooms

____ Other: please explain_____

_____

_____

4) **If yes**, I was cyberbullied by (**check all that apply**):
_____ College classmates

_____ Someone outside of college

_____ I don't know

5) **If yes**, I have been cyberbullied, **please check one:**
_____ Less than 4 times

_____ 4 – 10 times

_____ Over 10 times

6) I know someone who has been cyberbullied:
_____ Yes

_____ No

7) When I was cyberbullied, I told a parent/guardian/or other adult about it:
_____ Yes

_____ No

Has anyone ever <u>undesirably and obsessively</u> communicated with or pursued you through computer or other electronic means by (CHECK ALL THAT APPLY):

a. _____ Sending tokens of affection (e.g. poetry, songs, electronic greetings, praise, etc.)

b. _____ Sending exaggerated messages of affection (e.g. expressions of affections implying a more intimate relationship than you actually have, etc.)

c. _____ Sending excessively explicit messages (e.g. inappropriately giving private information about his/her life, body, family hobbies, sexual experiences, etc.)

d. _____ Sending excessively 'needy' or demanding messages (e.g. pressuring to see you, assertively requesting you to go out on a date, arguing with you to give him/her 'another chance,' etc.

e. _____ Sending pornographic/obscene images or messages (e.g. photographs or cartoons of nude people, or people or animals engaging in sexual acts, etc.)

f. _____ Sending threatening written messages (e.g. suggesting harming you, your property, family, friends, etc.)

g. _____ Sending sexually harassing messages (e.g. describing hypothetical sexual acts between you, making sexually demeaning remarks, etc.)

h. _____ Sending threatening pictures or images (e.g. images of actual or implied mutilation, blood, dismemberment, property destruction, etc.)

i. _____ Exposing private information about you to others (e.g. sending e-mail out to others regarding your secrets, embarrassing information, unlisted numbers, etc.)

j. _____ Pretending to be someone he or she wasn't (e.g. falsely representing him/ herself as a different person or gender, claiming a false identity, status or position, pretending to be you, etc.)

k. _____ 'Sabotaging' your private reputation (e.g. spreading rumors about you, your relationships or activities with friends, family, partner, etc.)

l. _____ 'Sabotaging' your work/school reputation (e.g. spreading rumors about you, your relationships or activities in organizational networks, electronic bulletin boards, etc.)

m. _____ 'Friended' people you know to get personal information about you

Other: Please explain

n. _____ _____

_____

_____

_____

_____

_____

Survey adapted from:

Li, Qing. (2006). Cyberbullying in schools: a research of gender differences [Electronic Version]. *School Psychology International,* 28, 157 – 170.

Spitzberg, Brian H. & Hoobler, Gregory. (2002). Cyberstalking and the technologies of interpersonal terrorism [Electronic Version]. *New Media & Society,* 4, 71 – 92.

Appendix C: Revised Survey Analyzed by Demographically Specific Pilot Group

Please answer each of the following questions as accurately as you can regarding your experience with social media AS A COLLEGE STUDENT. Your participation will greatly increase the understanding of how college students are using social media. Completion of this survey indicates your consent to participate in the study. All responses are completely anonymous.

Enter your email address on the separate form provided at the end of the survey. This separate form continues to assure that all your responses are confidential and will enter you in the drawing to **WIN AN IPAD!**

1. Gender
    a. Male _____
    b. Female _____

2. I am _____ years old

3. My overall GPA currently is in the following range:
    a. 4.0 – 3.5
    b. 3.49 – 3.0
    c. 2.99 – 2.5
    d. 2.49 – 2.0
    e. Below 2.0
4. I describe my ethnicity / culture as:
    a. White / Caucasian
    b. Hispanic
    c. Black / African American
    d. Asian
    e. Native American
    f. Other
5. I describe my sexual orientation as:
    a. Heterosexual
    b. Lesbian
    c. Gay
    d. Bisexual

6. Please select the category that best describes your family (parents or guardians)
    a. Upper class (top-level executives, Ivy league education is common, annual income $500,000+

b. Upper middle class (professionals & managers, graduate degrees, annual income $100 - $499,000)
c. Lower middle class (semi-professionals, some college education, annual income $35 - $99,000)
d. Working class (blue-collar workers, high school education, annual income $16 – 34,000)
e. Lower / poor (poorly paid jobs or rely on government help, some high school education, annual income below $16,000)

7. My hometown is:
    a. Large central metropolitan (Population > 1 million, ex. Philadelphia, NYC)
    b. Principal City (Pop. > 200,000, ex. Pittsburgh)
    c. Large City (Population 50 – 199,000; ex. Altoona, Erie, Bethlehem, Lancaster)
    d. City (Population 30 – 50,000; ex. New Castle, Bethel Park, Johnstown, Easton)
    e. Town or Village (population 15 – 30,000; Indiana, Lansdale, Pottstown, Baldwin, Carlisle)
    f. Other – no city center, less than 15,000

Please rank the following regarding your experience with social media during your time as a college student. All answers are confidential and completely private. Completion of the survey indicates your consent of participation.

For the purpose of this research, social media is defined as:

Any Internet based communication media, such as Facebook, Twitter, Four Square, My Space, email, AIM, Skype, iChat, etc. In addition communication via, cell phones (texting, sexting, picture messaging, etc.) are also included.

1. How important is it for you to check your social media accounts?
    a. Not important at all – Extremely important (Likert: 1-5)

2. Please indicate how often you interact with your social media accounts on average (reading messages/posts, sending messages/posting comments, tweeting)
    a. Hardly ever or never
    b. Once a month
    c. Once a week
    d. Once a day
    e. Every morning and night
    f. Several times a day
    g. Every hour
    h. More than Once every hour

3. I have received unwanted tokens of affection (e.g. poetry, songs, electronic greetings, praise, etc) via technology while at college: Yes/ No
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Rank the following based on how you felt getting the tokens:
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)
        iii. Not Angry to Very Angry (Likert: 1-5)
        iv. Not Scared to Very Scared (Likert: 1 – 5)
        v. Other: with box to fill in response
    c. If no, go to next question (automated via Qualtrics?) – APPLY TO ALL

4. Have you ever sent unwanted tokens of affection to someone via technology?
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Select the following based on how you felt sending the tokens (choose all that apply)
        i. Didn't bother me
        ii. Amused
        iii. Smart
        iv. Satisfied
        v. Justified
        vi. In control
        vii. Like part of a group
        viii. Other: with box to fill in response

5. I have received unwanted, excessively explicit messages (e.g. inappropriately giving private information about his/her life, body, family, sexual experience, etc)
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Rank the following based on how you felt after receiving the message:
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)

iii. Not Angry to Very Angry (Likert: 1-5)
iv. Not Scared to Very Scared (Likert: 1 – 5)
v. Other: with box to fill in response

c. If no, go to next question (automated via Qualtrics?)

6. Have you sent unwanted, excessively explicit messages? (e.g. inappropriately giving private information about your life, body, family, sexual experience, etc)
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Select the following based on how you felt after sending the message (choose all that apply)
        i. Didn't bother me
        ii. Amused
        iii. Smart
        iv. Satisfied
        v. Justified
        vi. In control
        vii. Like part of a group
        viii. Other: with box to fill in response

7. I have received unwanted, pornographic/obscene images or video (e.g. nude people or people engaging in sexual acts, etc.)
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Rank the following based on how you felt after getting the images or video:
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)
        iii. Not Angry to Very Angry (Likert: 1-5)
        iv. Not Scared to Very Scared (Likert: 1 – 5)
        v. Other: with box to fill in response
    c. If no, go to next question (automated via Qualtrics?)

8. Have you sent unwanted, pornographic/obscene images or video? (e.g. f nude people or people engaging in sexual acts, etc.)
    a. If yes, how often since you've been at college:

i. One time
ii. 2 – 4 times
iii. 5 – 7 times
iv. More than seven

b. Select the following based on how you felt sending the images or video (choose all that apply)
i. Didn't bother me
ii. Amused
iii. Smart
iv. Satisfied
v. Justified
vi. In control
vii. Like part of a group
viii. Other: with box to fill in response

9. I have been deceived by social media messages from an individual or group pretending to be someone he or she wasn't
a. If yes, how often since you've been at college:
i. One time
ii. 2 – 4 times
iii. 5 – 7 times
iv. More than seven
b. Rank the following based on how you felt after being deceived:
i. Not Sad to Very Sad (Likert: 1-5)
ii. Not hurt to Very Hurt (Likert: 1-5)
iii. Not Angry to Very Angry (Likert: 1-5)
iv. Not Scared to Very Scared (Likert: 1 – 5)
v. Other: with box to fill in response
c. If no, go to next question (automated via Qualtrics?)

10. Have you deceived others with social media messages as an individual or with a group pretending to be someone else?
a. If yes, how often since you've been at college:
i. One time
ii. 2 – 4 times
iii. 5 – 7 times
iv. More than seven
b. Select the following based on how you felt following this event (choose all that apply)
i. Didn't bother me
ii. Amused
iii. Smart
iv. Satisfied
v. Justified

vi. In control
vii. Like part of a group
viii. Other: with box to fill in response

11. I have had someone "friend" someone I know via social media to get personal information about or images of me
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Rank the following based on how you felt about it:
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)
        iii. Not Angry to Very Angry (Likert: 1-5)
        iv. Not Scared to Very Scared (Likert: 1 – 5)
        v. Other: with box to fill in response
    c. If no, go to next question (automated via Qualtrics?)

12. Have you "friended" someone to get personal information about or images of another person?
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Select the following based on how you felt following this event (choose all that apply)
        i. Didn't bother me
        ii. Amused
        iii. Smart
        iv. Satisfied
        v. Justified
        vi. In control
        vii. Like part of a group
        viii. Other: with box to fill in response

13. I have received harassing, hurtful, or threatening messages via social media
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven

b. Rank the following based on how you felt after getting the message:
    i. Not Sad to Very Sad (Likert: 1-5)
    ii. Not hurt to Very Hurt (Likert: 1-5)
    iii. Not Angry to Very Angry (Likert: 1-5)
    iv. Not Scared to Very Scared (Likert: 1 – 5)
    v. Other: with box to fill in response
c. If no, go to next question (automated via Qualtrics?)

14. Have you sent harassing, hurtful, or threatening messages via social media?
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Select the following based on how you felt sending the message (choose all that apply)
        i. Didn't bother me
        ii. Amused
        iii. Smart
        iv. Satisfied
        v. Justified
        vi. In control
        vii. Like part of a group
        viii. Other: with box to fill in response

15. I have been harassed or made fun of via social media because of my physical appearance, personality, sexuality or intelligence
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Rank the following based on how you felt after being harassed:
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)
        iii. Not Angry to Very Angry (Likert: 1-5)
        iv. Not Scared to Very Scared (Likert: 1 – 5)
        v. Other: with box to fill in response
    c. If no, go to next question (automated via Qualtrics?)

16. Have you harassed or made fun of someone else via social media because of their physical appearance, personality, sexuality or intelligence?
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Select the following based on how you felt following this event (choose all that apply)
        i. Didn't bother me
        ii. Amused
        iii. Smart
        iv. Satisfied
        v. Justified
        vi. In control
        vii. Like part of a group
        viii. Other: with box to fill in response

17. I have been the target of online social conversations or postings that included gossip or degrading remarks
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Rank the following based on how you felt when seeing the remarks:
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)
        iii. Not Angry to Very Angry (Likert: 1-5)
        iv. Not Scared to Very Scared (Likert: 1 – 5)
        v. Other: with box to fill in response
    c. If no, go to next question (automated via Qualtrics?)

18. Have you participated in online social conversations or postings that included gossip or degrading remarks about another person?
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Select the following based on how you felt following this event (choose all that apply)
        i. Didn't bother me
        ii. Amused

iii. Smart
iv. Satisfied
v. Justified
vi. In control
vii. Like part of a group
viii. Other: with box to fill in response

19. I have had or am having problems due to personal information shared about me without my consent
    a. Rank the following based on how you felt about this:
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)
        iii. Not Angry to Very Angry (Likert: 1-5)
        iv. Not Scared to Very Scared (Likert: 1 – 5)
        v. Other: with box to fill in response
    b. If no, go to next question (automated via Qualtrics?)

20. I have been blocked by others in online discussions / postings
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Rank the following based on how you felt being blocked:
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)
        iii. Not Angry to Very Angry (Likert: 1-5)
        iv. Not Scared to Very Scared (Likert: 1 – 5)
        v. Other: with box to fill in response
    c. If no, go to next question (automated via Qualtrics?)

21. Have you blocked others in online discussions / postings?
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Select the following based on how you felt following this event (choose all that apply)
        i. Didn't bother me
        ii. Amused
        iii. Smart
        iv. Satisfied
        v. Justified
        vi. In control
        vii. Like part of a group

viii. Other: with box to fill in response

22. I have had private, personal photographs and/ or videos published via technology without my consent
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. How did you feel knowing the images were published?
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)
        iii. Not Angry to Very Angry (Likert: 1-5)
        iv. Not Scared to Very Scared (Likert: 1 – 5)
        v. Other: with box to fill in response
    c. If no, go to next question (automated via Qualtrics?)

23. Have you sent private, personal photographs and/ or videos of others via technology without their consent?
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Select the following based on how you felt following this event (choose all that apply)
        i. Didn't bother me
        ii. Amused
        iii. Smart
        iv. Satisfied
        v. Justified
        vi. In control
        vii. Like part of a group
        viii. Other: with box to fill in response
24. I have had other people use my identity online to speak with others without my knowledge
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Rank the following based on how you felt when they used your identity:
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)
        iii. Not Angry to Very Angry (Likert: 1-5)

iv. Not Scared to Very Scared (Likert: 1 – 5)
v. Other: with box to fill in response

c. If no, go to next question (automated via Qualtrics?)

25. Have you used other people's identity online to speak with other people without their knowledge?
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Select the following based on how you felt following this event (choose all that apply)
        i. Didn't bother me
        ii. Amused
        iii. Smart
        iv. Satisfied
        v. Justified
        vi. In control
        vii. Like part of a group
        viii. Other: with box to fill in response

Recently, a lot of news has covered events of cyberbullying in schools. Please answer the following two questions regarding your personal experience.

Cyberbullying is currently defined as communication tools used to deliberately and repeatedly deliver slanderous, harassing, obsessive or obscene messages that *result* in harm to the recipient.

26. I have been cyberbullied during my time at college
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Rank the following based on how you felt following this event:
        i. Not Sad to Very Sad (Likert: 1-5)
        ii. Not hurt to Very Hurt (Likert: 1-5)
        iii. Not Angry to Very Angry (Likert: 1-5)
        iv. Not Scared to Very Scared (Likert: 1 – 5)
        v. Other: with box to fill in response
    c. Please check the forms of social media that were used (select all that apply):
        i. Facebook

ii. Cell phone (text, sexting, images)
iii. Twitter
iv. iChat
v. Skype
vi. My Space
vii. Four Square
viii. AIM
ix. Other

27. While enrolled in college, have you engaged in behavior online that might be considered cyberbullying?
    a. If yes, how often since you've been at college:
        i. One time
        ii. 2 – 4 times
        iii. 5 – 7 times
        iv. More than seven
    b. Select the following based on how you felt following this event (choose all that apply)
        i. Didn't bother me
        ii. Amused
        iii. Smart
        iv. Satisfied
        v. Justified
        vi. In control
        vii. Like part of a group
        viii. Other: with box to fill in response
    c. Please check the forms of social media that you used (select all that apply):
        i. Facebook
        ii. Cell phone (text, sexting, images)
        iii. Twitter
        iv. iChat
        v. Skype
        vi. My Space
        vii. Four Square
        viii. AIM
        ix. Other

Appendix D: Pilot Group Recommended Changes for Survey (Appendix C)

DEMOGRAPHICS

Question Number	Group Recommendations
One	○ No comment
Two	○ Make age range instead ○ Age range instead, not everyone might not want to put age ○ Category for ages so you can say age group ○ Choose age group
Three	○ Don't think you need ○ Overall group discussion – consensus was same
Four	○ I HATE this question. Question should be eliminated or circle all you are or fill in the blank ○ Add multi-cultural ○ I think it should have a multi/racial option for those who are mixed ○ Multi-cultural ○ Maybe add multi-cultural ○ Overall group discussion – Allow to choose all that apply and keep "other" option for individual comments
Five	○ "What is heterosexual?" ○ I've never seen this question asked before, good idea ○ Heterosexual / "straight" ○ Heterosexual ("straight") maybe easier to understand ○ I think this is too personal ○ Overall consensus – change heterosexual to "straight"
Six	○ Don't categorize by classes make more simple ○ A lot of college students are on their own nowadays, so maybe it should be based on your own family income, not that of your parents ○ Kids might be independent ○
Seven	○ Other – change to rural area ○ Never heard of b (principal city) or c (large city) ○ Simplify range ○ Overall consensus – simplify categories and wording

USE OF TECHNOLOGY

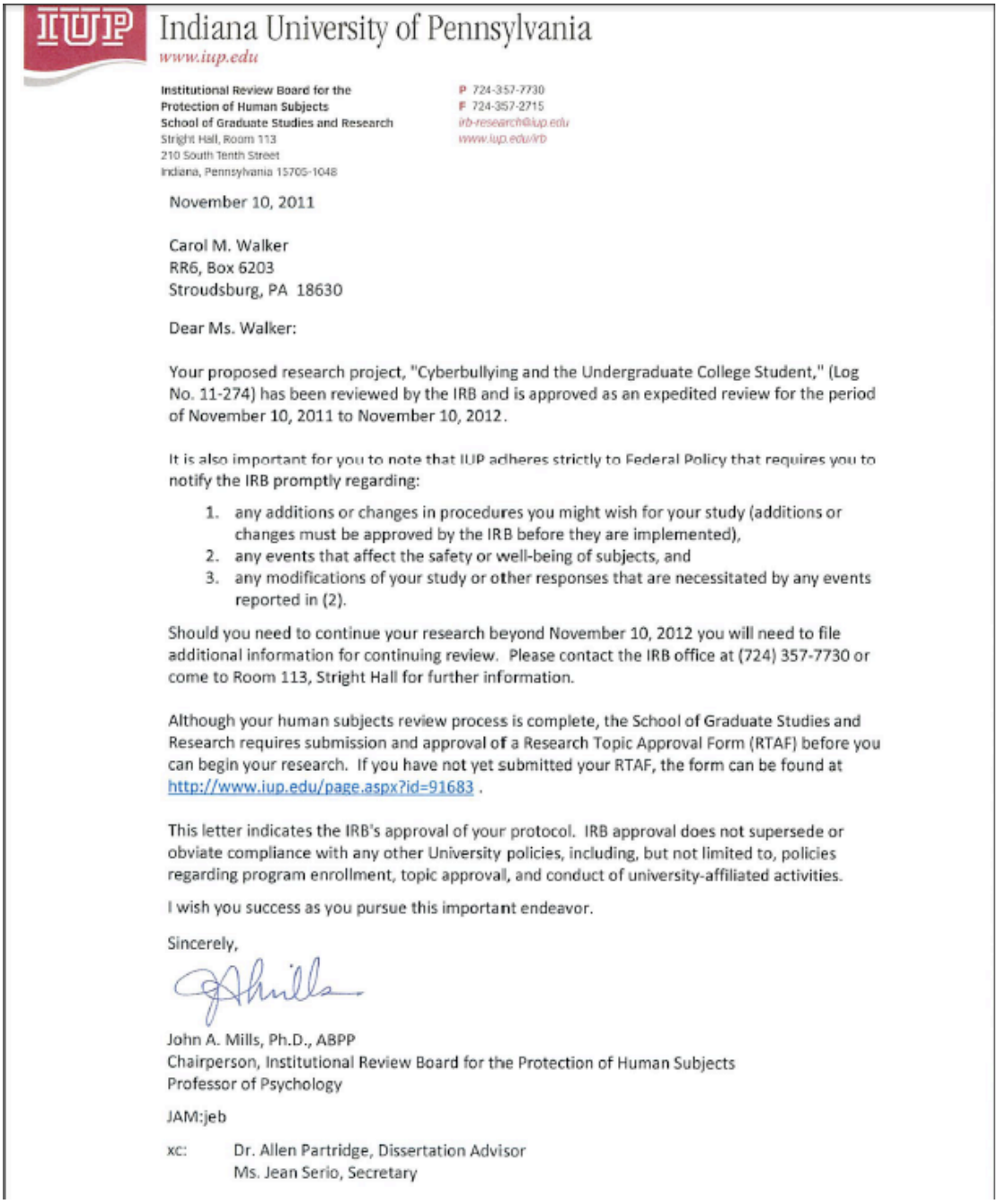
Introduction to section	○ Add ooVoo, Chatroulette – both popular as well
One	○ No comments
Two	○ Line drawn through b, c, e, and g ○ Too many answers ○ Too many options ○ Overall Consensus – add "I don't use," make less options by merging and eliminating, add how many hours a day, what time of day do you spend the most time logged on

SURVEY QUESTIONS

Three	○ What tokens? Wording could be better ○ Add didn't bother me to part B ○ Overall consensus – change all questions from "technology" to "social media," change all question for B to "rank each of the following"
Four	○ Word it differently ○ Make never an option ○ Numbers 4 & 6 can go together
Five	○ Make "I have received" bold
Six	○ I don't know if anyone would really admit to that
Seven & Eight	○ No comments
Nine	○ Reword this so it makes sense ○ Overall consensus – change to I have received/replied to messages from someone pretending to be someone else
Ten	○ No comments
Eleven	○ Needs to be reworded ○ Overall consensus – Change to "I have had someone "friend" a Facebook friend of mine to get pictures or personal information about me

Twelve	○ Eleven and twelve are good questions
Thirteen	○ No comment
Fourteen	○ 14 and 16 can be combined
Fifteen	○ Fifteen – change to "I have been teased or made fun of with social media]
Sixteen	○ 16 might not respond honestly
Seventeen	○ Change to " . . . postings that included untrue gossip or humiliating remarks"
Eighteen to Twenty-two	○ No comment
Twenty-three	○ Change to " . . . videos of someone to others without that person's consent"
Twenty-four to twenty-six	○ Add Chatroulette and ooVoo to part C
Twenty-seven	○ Change emotional response options: delete 3 and 5; add powerful to 6
OVERALL COMMENTS	○ 100% of participants stated they would not complete or would not answer honestly all of the questions due to the length of the survey. They stated they weould either quit or just pick answers to get to the end ○ Combine sad and hurt for emotional response on every question

Appendix E: Screen Shot of IRB Research Approval Document



Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

November 10, 2011

Carol M. Walker
RR6, Box 6203
Stroudsburg, PA 18630

Dear Ms. Walker:

Your proposed research project, "Cyberbullying and the Undergraduate College Student," (Log No. 11-274) has been reviewed by the IRB and is approved as an expedited review for the period of November 10, 2011 to November 10, 2012.

It is also important for you to note that IUP adheres strictly to Federal Policy that requires you to notify the IRB promptly regarding:

1. any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented),
2. any events that affect the safety or well-being of subjects, and
3. any modifications of your study or other responses that are necessitated by any events reported in (2).

Should you need to continue your research beyond November 10, 2012 you will need to file additional information for continuing review. Please contact the IRB office at (724) 357-7730 or come to Room 113, Stright Hall for further information.

Although your human subjects review process is complete, the School of Graduate Studies and Research requires submission and approval of a Research Topic Approval Form (RTAF) before you can begin your research. If you have not yet submitted your RTAF, the form can be found at http://www.iup.edu/page.aspx?id=91683 .

This letter indicates the IRB's approval of your protocol. IRB approval does not supersede or obviate compliance with any other University policies, including, but not limited to, policies regarding program enrollment, topic approval, and conduct of university-affiliated activities.

I wish you success as you pursue this important endeavor.

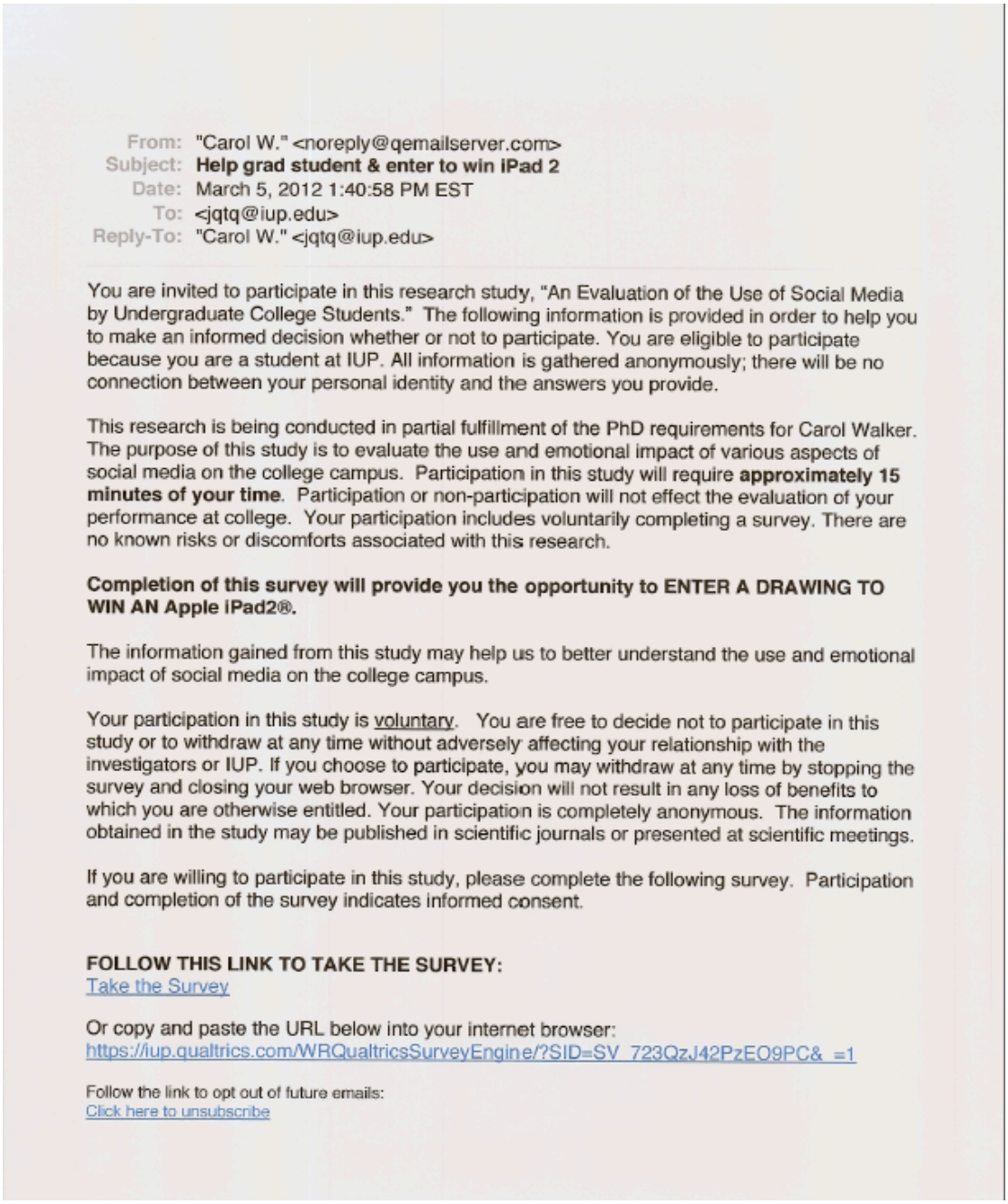
Sincerely,

John A. Mills, Ph.D., ABPP
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Psychology

JAM:jeb

xc: Dr. Allen Partridge, Dissertation Advisor
Ms. Jean Serio, Secretary

Appendix F: Screen Shot of Survey Distribution Letter



From: "Carol W." <noreply@qemailserver.com>
Subject: **Help grad student & enter to win iPad 2**
Date: March 5, 2012 1:40:58 PM EST
To: <jqtq@iup.edu>
Reply-To: "Carol W." <jqtq@iup.edu>

You are invited to participate in this research study, "An Evaluation of the Use of Social Media by Undergraduate College Students." The following information is provided in order to help you to make an informed decision whether or not to participate. You are eligible to participate because you are a student at IUP. All information is gathered anonymously; there will be no connection between your personal identity and the answers you provide.

This research is being conducted in partial fulfillment of the PhD requirements for Carol Walker. The purpose of this study is to evaluate the use and emotional impact of various aspects of social media on the college campus. Participation in this study will require **approximately 15 minutes of your time**. Participation or non-participation will not effect the evaluation of your performance at college. Your participation includes voluntarily completing a survey. There are no known risks or discomforts associated with this research.

Completion of this survey will provide you the opportunity to ENTER A DRAWING TO WIN AN Apple iPad2®.

The information gained from this study may help us to better understand the use and emotional impact of social media on the college campus.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators or IUP. If you choose to participate, you may withdraw at any time by stopping the survey and closing your web browser. Your decision will not result in any loss of benefits to which you are otherwise entitled. Your participation is completely anonymous. The information obtained in the study may be published in scientific journals or presented at scientific meetings.

If you are willing to participate in this study, please complete the following survey. Participation and completion of the survey indicates informed consent.

FOLLOW THIS LINK TO TAKE THE SURVEY:
Take the Survey

Or copy and paste the URL below into your internet browser:
https://iup.qualtrics.com/WRQualtricsSurveyEngine/?SID=SV_723QzJ42PzEO9PC&_=1

Follow the link to opt out of future emails:
Click here to unsubscribe