Spring 5-11-2016

Determining the effect of bring your own device on cyberbullying incidents at a high school

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HOW DOES BRING YOUR OWN DEVICE AFFECT CYBERBULLYING IN A HIGH
SCHOOL?

by

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A capstone submitted in partial fulfillment of the

requirements for the degree of Master of Arts in Education

Hamline University

Saint Paul, Minnesota

April 2016

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To my beautiful wife for encouraging me to keep working on this capstone and finish my Master's Degree. You are awesome and I love you.

To Graeme and Hazel, my two beautiful young children. Thank you for providing many much needed distractions and playful relief from writing. Always remember you can accomplish anything with hard work.

To my dog Finn, with unwavering loyalty you hung out with me at school or wherever it was I could take you to work on this capstone. You also provided much needed mental breaks from writing; "fetch" is indeed a fun game.

And finally a special thank you to my capstone committee members who read and reread my entire capstone without hesitation. Clearly, without you I never would have finished.

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CHAPTER ONE

Introduction

Introduction

The access to technology in the classroom has changed tremendously in recent

years. I remember when I went to high school, a mere 13 years ago, there was a giant

tube TV secured to the black metal cart with what appeared to be a seat belt. It signaled

to students that they were going to be watching a movie. The overhead projectors, which

now sit unused in back closets of many schools, once gave teachers stained fingers from

erasing the ink. In the years between high school and when I went back to high school as

a teacher, technology found its way into classrooms at an alarming rate.

History of Technology

Gone are the days in my school of notes written on the classroom whiteboard, and

surely gone are the days of squeaky chalk. In fact, in my own experience, I have had the

same whiteboard markers for the last three school years; I just don't use them. Beginning

a few years back, the school where I teach secured a grant for a pair of iPad carts. These

carts began a radical transformation. No longer were teachers required to take their entire

class to one of just a couple computer labs, but now that same technology could be

wheeled into the classroom and utilized by students to further their education. For many

teachers, this change in teaching was quite dramatic, and for some it was even tough to

handle. While teachers for centuries were the ones who held the knowledge to be passed

on to their students, now their students could discover much of that knowledge on their

own. An LCD projector was installed roughly four years ago, about three years after I

had begun teaching. No longer were the clunky tube TVs needed, rather movies,

PowerPoint Presentations, and even interactive applications could be viewed on their own devices.

Bring Your Own Device

The most recent technological transformation at the school I teach is called "Bring Your Own Device" (BYOD). It has been an interesting journey through the evolution of the use of technology in the high school in which I teach, most interestingly may be the fact that it is also where I went to high school. In fact, many times throughout the last seven years of teaching, I have found myself helping the veteran teachers who taught me with the new technology in our classrooms. As a small Catholic high school in the fringe suburbs of a major Midwestern metropolitan area, we have the unique setting of small class sizes, and teachers that collaborate often with each other on best practices, especially with technology.

Responsible Use Policy

A new Responsible Use Policy (RUP) was released for both students and their parents to read and sign an agreement with the policy. Failing to sign the new policy by a certain date meant that particular students would be unable to use his/her device in school. RUP was signed and turned into the office, those who completed it were told they were allowed to use their own devices and those that did not could not. However, a problem quickly arose: how do classroom teachers know who turned in their RUP and who did not? The main office secretary sent out an email, which stated those students who had not turned in their RUP. However, this created a continued dilemma for the already very busy classroom teacher to know at any particular moment who had turned their RUP in and who had not. It became apparent to me in my experience with BYOD

that while the school had a content filter to keep students from accessing inappropriate material, they could simply use their smartphone's service provider web service to access that information. Recent concerns involving an increase in cyberbullying during the school day as a result of BYOD have led me to examine it in greater detail.

<u>Confiscated Smartphones and Fines</u>

Seeing the new innovative ways of teaching that were accomplished by the iPad carts, the teachers and administrators decided to enable students to bring whatever kind of device they had. Before BYOD when students were seen using their devices during the school day, most commonly their smartphones, their devices were confiscated and sent to the office. The students could retrieve their phones at the end of the day, and if it was a habitual problem for a particular student, he or she was required to pay a fine. Now in the second official year of BYOD, teachers, though technically still able to do so, rarely confiscate smartphones or other devices as these same devices may be required in other class periods throughout the students' school day.

<u>Threat of Cyberbullying</u>

With the acceptance of devices in the pockets of students, there exists a cause for concern that those devices have been used for more devious purposes, to cyberbully. Though, as far as administration and teachers will attest, my school does not have a large issue with bullying or bully-like behavior, it does still exist. In a recent study, it was found that 35% of respondents reported cyberbullying at least one individual during their senior year of high school (Roberto et. al, 2014). It is here that I developed my research question: *How does bring your own device affect cyberbullying in a high school?*

Much has already been researched and discussed regarding the changing habits and tactics of bullies when it comes to using devices, social media, and numerous other "apps" that keep people ever-connected to one another. This cyberbullying research has, at least for the most part, focused mostly on the effects of bullying on students after the school day (Messitt, 2014). However, my question focuses on examining whether or not BYOD has affected cyberbullying within the high school class day. Certainly cyberbullying outside of the school day is a contemporary issue that must be addressed by education professionals. As administrators and teachers welcome more technology into their classrooms, the issue of cyberbullying during the school day must be considered.

BYOD in My Classroom

As previously mentioned, this is the second year of BYOD, and it is impressive to see how useful it has been for many students. Students in my class can take notes on their iPhone or iPad faster than they can write them in their notebooks. We now have electronic textbooks in a few of the courses we offer and the ability to highlight and manipulate information is tremendous. The ability for students to share and collaborate on work is fascinating to watch as well. It is important to note that the goal of this project is not to end or get rid of technology in the classroom, but rather how to teach students to be responsible stewards of it. From smartphones to tablets to laptop computers, these devices have added an important new element to schools and learning. Such technology is not going away.

Technology for the Right Purpose

        The dilemma, however, remains for us involved in the field of education to ensure this technology is used for the right purpose. Questions arise in my head frequently as I watch students work on their devices of whether or not they are doing what they are supposed to be doing. One only needs to do a quick search on YouTube to see the effects of distracted users of technology, whether it be walking into a fountain in a mall or running into light poles or parked cars. However, we cannot throw away technology just because we can be distracted by it. Oversight of students with their own technology is a difficult but necessary requirement to ensure the safety and protection of all students within the school building. Our ability to use technology for the correct purpose and not engage in negative, mean or otherwise distractive behavior is learned, practiced, and exercised. As Spider-Man said, "with great power comes great responsibility" (Ziskin, 2002). As it has always been the case, adolescence is a time of great growth and tribulation. Adolescence is a challenging and chaotic time in one's life as he or she crosses the threshold from child to adult. As Spider-Man struggled to harness and care for the great power that he had, so too must students with technology as they prepare for adulthood.

        The perceived impersonal nature of social media, the ability to hide behind the screen, promotes actions and behavior that students in a face-to-face situation would otherwise not engage. It will be the purpose of this capstone to examine whether BYOD has increased cyberbullying in a high school setting.

An Elective Course Creates Concern

       In the spring of 2013 I took an elective course on bullying and techniques to prevent it from occurring the school and the classroom. I found the class to be highly interesting, especially the discussion on the rather new topic of cyberbullying. As we read and discussed cyberbullying in the class, discussions were happening in my high school about allowing students to use their own devices in class. As BYOD became the technology policy of the school, my interest and concern about cyberbullying grew. It just so happened that I also was beginning my capstone process and soon decided on a research question, which is: *How does bring your own device affect cyberbullying in a high school?*

Conclusion

       It has been proven time and again that increased access and use of technology in the classroom benefits students' learning tremendously. Next, I will examine the literature and research that discusses bullying within schools, cyberbullying, BYOD literature and school policies that have been developed to ensure the safety of students using technology in the school setting. Such policies ought to address the reality that technology in the classroom is useful and is here to stay. It also must address appropriate behavior and the reality of "cyber-reality" (Wiseman, 2014).

What is Next?

       In the following chapter, I will examine the literature written by professionals in the areas of cyberbullying, cyberbullying in schools, bring your own device policies, cloud technology, and statistics on cyberbullying. Through this review of the literature, I will gain valuable information to examine whether or not BYOD has affected

cyberbullying behavior within a high school setting. In Chapter Three, I will discuss my plan for action research, which includes a survey of teachers and administrators to gather information on cyberbullying among high school students. Chapter Four of this capstone will include a discussion of the results of the action research survey. Chapter Five will discuss the results of the entire project, including the major findings of cyberbullying in the literature, the survey results, and an overall assessment of the entire project.

CHAPTER TWO

Literature Review

<u>Introduction</u>

At the beginning of my second semester in January of 2014, the school where I teach released a new technology policy titled "Bring Your Own Device" (BYOD). Administrators and teachers had discussed during workshops and teacher in-service days on ways in which more technology could be brought into the classroom without adding significant expense for the school and allowing students easier access to devices they already have. For everyday classroom teachers like me, this new availability of technology in the classroom provided great opportunities for students to learn. It also presented unique challenges. The greatest challenge for teachers was how to control students using their own devices and to keep them from using them inappropriately. The release of many new smartphone applications also brought about a new concern, cyberbullying during the school day.

In the following pages, I will review the literature already written on cyberbullying and will work towards answering my research question which is: *How does bring your own device affect cyberbullying in a high school?* I will begin by defining cyberbullying, followed by a discussion of cyberbullying statistics in secondary (high) schools. Next, I will explore the pervasive nature of cyberbullying and examine the BYOD technology policy. Throughout the chapter, I will discuss the importance of using technology in the classroom while keeping in mind the need for students to use such a powerful tool efficiently, effectively, and acceptably.

Cyberbullying

Many different terms have been used by researchers to discuss negative behavior, which occur through the use of technology. Olweus (1993) defined bullying 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 other students" (p. 9). For the purposes of this literature review, and the need to note the many terms used for cyberbullying behavior, the following definition of cyberbullying will be used. "Being cruel to others by sending or posting harmful material or engaging in other forms of social aggression using the Internet or other digital technologies" (Simmons & Bynum, 453).

Cyberbullying in Schools

As Olweus defined bullying in the traditional sense of a face-to-face attack on the victim by one or more bullies, cyberbullying removes the need for physical proximity for the bullying to occur. The U.S. Department of Health and Human Services (2014) defines cyberbullying as "bullying that takes place using electronic technology" (para. 1). For instance, students in different classes on opposite ends of the school building can engage in bullying through the use of technology, such as smartphones, tablets, computers etc. The greatest difference between "traditional" bullying and cyberbullying is best summed up by Simmons and Bynum (2014) who wrote, "Cyberbullying, unlike traditional face-to-face bullying, gives the aggressor more time to attack their victims, due to the ability to attack beyond school grounds through the use of cyberspace" (p. 453). Though Simmons and Bynum pointed out that cyberbullying can and does happen beyond the school grounds, it can also happen within the school building, just not face-to-face.

The ability for the bully to victimize has increased tremendously with many modern advances in technology. Peter Smith and Robert Slonje (2008) point out the consequences of using technology to bully are far reaching. They discuss that unlike traditional forms of bullying, with cyberbullying the victim may continue to receive text messages or emails wherever they are. Another is the potential audience. Cyberbullying can reach particularly large audiences due to the easy nature of sharing information quickly with technology. Another common characteristic of cyberbullying is the invisibility of the perpetrators: cyberbullying is not a face-to-face experience. This provides a level of anonymity for the bully. As such, the bully may be unaware of the consequences he or she has caused (p. 148). This lack of a need for direct proximity of the bully and the victim, as well as the ability to use technology to remain hidden behind the screen of technology, creates a cyclical nature of bullying. As Wisemen pointed out in his dissertation, there exists a continuous cycle of bully and victim. Through the anonymity of cyberbullying, the bully may also be a victim of bullying, creating a spiraling cycle of bullying. An individual who engages in bullying as both the bully and the victim is referred to by Kowalski and Limber (2013) as a "bully/victim" (p. S13). They performed a study and found evidence that being a bully/victim was common. In fact, in traditional bullying, 19.2% of respondents stated they were a bully/victim and 5.3% were Cyberbully/victim (p. S15). This shows that evidence of the cyclical nature of bullying is a concern.

Much can be discussed about cyberbullying beyond the school building, and many of the authors who were quoted above discussed the nature of cyberbullying as bullying that does not even allow the victim to remove themselves due to the ever

connectedness of adolescents to the Internet. However, the purpose here is to look at

cyberbullying within the school building, during the school day in a school that has

recently allowed students to use their own devices (BYOD.)

Bring Your Own Device

Bring Your Own Device (BYOD) is a technology initiative at many schools to

allow students to use the devices they have in their pockets or in their backpacks or

lockers (Bruder, 2014). "The theory is that allowing students to use technology they are

familiar with encourages participation in the classroom" (p. 15). By enabling students to

use technology they already have and understand, students will be more inclined to use it

to further classroom participation and learning. The essence of BYOD tells the students

they must have a piece of usable technology, in many cases a very expensive smartphone

or tablet. This, according to Bruder, "enshrines inequity" (Bruder, 2014, p. 15). This

inequity arises from the students who do not have the means to afford the latest and

greatest smartphone, tablet, or laptop computer. A common way that teachers in my

school distribute information such as articles, notes, presentation slides, etc. is to send out

the file electronically while also presenting the same information on a screen in the

classroom. As has been my experience, this inequity exists when the student who does

not have the device must copy down the notes projected while everyone else follows

along on their devices with relative ease. For my students, approximately one-third have

a laptop computer, one-third have a tablet and/or smartphone and one-third do not have a

device suitable for accessing information provided by their teachers.

Many schools, mine included, attempt to remove this inequity by making

available a few technology carts that each have enough tablets (iPads in the case of the

school in reference) to enable those who do not have their own devices to also follow along and engage in the lesson. This helps, but does not remove the inequity. Students with their own devices click and save files for later reference, while those who borrowed their technology cannot save any files. They are once again at a loss. Adams discussed this in her article as she proposes some ideas about how schools with a BYOD policy can create equity. She proposes four ideas: share, purchase/checkout, seek funding, and community purchasing program. The share idea implies that students with a device would be willing and able to use their device with another student. The issue with sharing in my experience is that it still leaves the student without the resources at the end of the lesson. It preserves the inequity.

Adams (2012) proposes that schools purchase devices that students can check out, much as they would check out a library book. In a sense, it would be their own device. These community purchasing ideas all revolve around the notion of schools seeking external funding for technology or having students purchase prescribed hardware through the school often at a discount (Adams, 2012). The issue of saving files has been addressed by the increased use of cloud technology. As Adams proposes, the devices, though owned by the school, would not need to be shared throughout the day. This would allow each student to customize his or her own device to suit their learning needs.

Cloud Technology

The issue of file saving has been addressed by the use of cloud based technology. Students can upload their work to the cloud and then access it from any device as long as it has internet access. Using cloud based technology not only allows students to save their work from any device, it also allows them to collaborate (McCrea, 2015). Though the

inequities limit the ability of students who do not have access to devices by not enabling them to connect to their classmates to collaborate outside of the school provided devices, BYOD is here to stay.

A distinct benefit of BYOD is that students know how to use their devices. Available school computers may require lengthy passwords with a certain number of letters and numbers could be quickly forgotten. Such is the case in my school where every 30 days passwords must be changed. BYOD student users do not have this problem. Perhaps they only need to remember a four-digit code to unlock their device, or since it is their device alone, they may not even have it password protected. By high school, according to the article titled "Living and Learning with Mobile Devices" as included in *Education Digest* (2014), stated that "half of students carry a smartphone" (p. 51). This percentage, though it records a majority of high school students as carrying a smartphone, may be a low estimate. Of course, much depends on the socioeconomic status of the student population. It may be assumed this number would be much higher in schools with populations of students from higher income communities. Understanding that at least one-half of all high school students carry a smartphone with them, it is necessary to now take a look at statistics of cyberbullying.

Statistics on Cyberbullying

The breadth and depth of cyberbullying is tremendous. To keep the information to the point and manageable, efforts will be given to highlight key aspects of cyberbullying as it occurs within the school building. As already discussed, cyberbullying is pervasive. Cyberbullies can find a way to attack their victims throughout the school through the use of technology, especially in schools with BYOD. Overall, statistics derived from

questionnaires and surveys show that one in five high school students will be a victim of cyberbullying at least once (Chisholm, 2014).

Though cyberbullying can occur similarly to traditional bullying, there are many more avenues for cyberbullies to carry out their attacks on their victims. According to a recent survey conducted by the Pew Research Center (2015), 92% of teens state they go online daily, and 74% of those surveyed had a smartphone. Only 12% had no cell phone at all (Pew Research Center, 2015). With such a majority of teens who have easy access to the Internet, it must also be noted the widespread use of social media and smartphone applications (apps). Chisholm highlighted many different types of cyberbullying, many of them having to do with the use of apps. From the "hot or not" posts from years ago to the ugly meter in which users rate a person's picture on a scale for how "ugly" he or she is, smartphone applications have been abused and turned into tools of cyberbullying.

The most popular social media service among teenagers, according to a CBS News survey, is Instagram which is an application that allows people to post pictures of themselves or others and share them with a variety of other social media services (CBS News, 2015). According to a study completed at a middle school (students aged 11-15), 34.4% of those surveyed responded they had been a victim of cyberbullying at least one time in their life. In the same study, questions were asked that pertained to cyberbullying within the previous thirty days. Within the previous thirty days, respondents stated 15% were cyberbullied (Hinduja & Patchin, 2015). This data is quite striking, especially when compared to data recorded by the Centers for Disease Control (CDC) in 2009, where it found that 9-35% of students had been the victim of cyberbullying (David-Ferdon &

Hertz, 2009). The correlation between the increasing prevalence of smartphones in the

hands of high school students and the rising trend in cyberbullying cannot be overstated.

Conclusion

In this chapter I reviewed the literature written on cyberbullying and worked

toward answering my research question which was: *How does bring your own device*

affect cyberbullying in a high school? I began by defining cyberbullying and looking at

statistics on cyberbullying. I then explored the pervasive nature of cyberbullying and

examine the BYOD technology policy. Throughout the chapter, I discussed the

importance of technology in the classroom while keeping in mind the need for students to

use such a powerful tool efficiently, effectively, and acceptably.

What is Next?

The literature on cyberbullying, BYOD, Statistics on cyberbullying, and school

technology/responsible use policies had been reviewed and an understanding of

cyberbullying and the increased use of technology within the school setting has been

made. In the following chapter, I will discuss how I surveyed high school teachers and

administrators to find out the extent of cyberbullying in the school.

CHAPTER THREE

Methodology

<u>Introduction</u>

The purpose of my capstone was to look at the issue of cyberbullying in a school that has recently unveiled Bring Your Own Device (BYOD). The statistics cited in the previous chapter (Chisholm, 2014; Pew Research Center, 2015) showed the prevalence of cyberbullying in high schools; thus I made the assumption that BYOD affected cyberbullying among high school students. As such, in this chapter the survey for teachers and administrators was developed to gain a greater insight into the effects BYOD has had on cyberbullying.

In Chapter One I asked the question, *How does Bring Your Own Device (BYOD) affect cyberbullying in a high school?* In my research through Chapter Two, I found there to be compelling evidence showing the extent of cyberbullying in secondary schools throughout the United States who utilize a BYOD type technology initiative (Chisholm, 2014). With student access to technology available in their pockets and with schools allowing students to use those same devices, it became important to assess whether or not BYOD has affected cyberbullying within the high school setting.

<u>Research Paradigm</u>

This study was grounded in quantitative research theory, which Creswell (2014) defined as "an approach for testing objective theories by examining the relationship among variables" (p. 4). Quantitative data was collected by means of a cross-sectional survey. Research by means of a survey is described by Creswell (2014) as quantitative research. Creswell states, "a survey design provides a quantitative or numeric description

of trends, attitudes, or opinions of a population by studying a sample of that population"
(p. 155).

Setting

The setting for the study was in a Catholic high school in a suburban Midwest
town. The student body size was approximately 450-475 students. The ages of the
students were typical for a high school, with all of the students being between the ages of
13 years old and 18 years old. While the location of the school was suburban, many
students commute from rural areas as well as first-ring suburbs of a metropolitan area.
Sixty percent of students come from middle income families and live in single family
homes; however, one-third of the student body receives financial assistance for tuition
and some have their lunch provided at a free or reduced cost.

There were thirty-six members on the teaching faculty at the school at the time of
the study. Administration at the school consisted at the time of four positions: a
president/principal, an assistant principal, an athletic director/assistant principal, and a
Dean of Academics. There were three computer labs at the school available for
reservation by teachers. With the unveiling of the BYOD initiative, the Wi-Fi system was
expanded with more robust routers to ensure adequate internet speed and connection in
all parts of the school. The school-owned computers were subject to a controlled
individual log in. The school day began at 7:30am and ended at 2:25pm. The day was
divided into eight class periods lasting 44 minutes. There was also a period dedicated to
lunch, which is split into two 22 minute blocks, during which students eat in the cafeteria
and have Beyond the Classroom (BTC.) BTC provided students with multiple

opportunities to either play sports in the gymnasium, receive extra help from a teacher, or work quietly in the Information Center.

Participants

  Participants in the survey were teachers and administrators at the high school. There were thirty-six members of the teaching faculty and four administrators employed at the school at the time of the survey. Thirty-three (92%) teachers and all four (100%) of the administrators have been employed at the school since before BYOD began.

Materials

  The survey was conducted online using Google Forms. The learning support staff utilized Google Forms for a lot of their questionnaires regarding particular students. As such, teachers and administrators were familiar with this program. With that in mind, the participation rate was not affected by unknown or challenging technology.

Design

  The survey was created electronically so that it could be distributed, completed, and analyzed efficiently. This was a cross-sectional assessment, which according to Fink (2013) means the survey occurred just once and provided an insight as to the way things are so people can plan for change (p. 102). The survey consisted of 25 multiple choice questions. This survey was given online to all teachers and administrators at the high school. As such, no sampling was used because of the small size of the survey population.

  A survey is "[an] information collection method used to describe, compare, or explain individual and societal knowledge, feelings, values, preferences and behavior (Fink, 2013, p. 2). The purpose of the survey in the present study was to discover whether

or not BYOD had led to an increase in cyberbullying incidents in the high school. Fink continued in her discussion of surveys when she stated that "all surveys consist of (1) questions and responses. To get accurate data, you must account for a survey's (2) sampling and design, (3) data processing or management and analysis, (4) pilot testing, and (5) response rate (Fink, 2013, p. 5). In regard to survey questions, Fink discussed the many different types of questions and their proposed responses. Forced-choice questions, which I used, she stated the advantages of such questions are that they can be: scored more objectively, are best at measuring complex behaviors, can have more than one answer, and are the least threatening of the question types (Fink, 2013, p. 5). It is with these ideas in mind that I chose to use forced choice questions in my survey.

Procedure

The survey was introduced and available to all teachers and administrators at the high school. In order to determine the likely response rate for the actual needs assessment, a pilot test occurred because, according to Fink (2013), "all surveys must be pilot tested before being put into practice" (p. 7). The pilot testing phase enabled me, the surveyor, to "reveal whether people understand the directions you have provided and if they can answer the survey questions" (Fink, 2013, p. 7). The pilot test was conducted and included three teachers who took the survey and provided feedback on any changes necessary. Once the pilot test was completed I rephrased a couple of questions in the survey in order to "make the survey run smoothly" (Fink, 2013, p. 8). Though it would have been ideal to have every teacher and administrator in the school participate in the pilot test, getting one-hundred percent participation was practically impossible due to the various other needs each teacher or administrator must address throughout their school

day. Pilot testing helped improve the response rate because "it can eliminate severe sources of difficulty, such as poorly worded questions" (Fink, 2013, p. 8). This pilot increased the likelihood of participation because it rephrased and reorganized some of the questions.

This survey (see Appendix A: *Teacher and Administrator Survey*) was pre-approved by the principal to be sure the questions were fair and appropriate. A challenge was to make sure no teacher/administrator took the survey twice. A statement was added to the directions asking teachers and administrators to only take the survey once.

The teachers and administrators were sent the link to the survey via email to complete the cross-sectional survey. The response sample included teachers from every grade level (9-12) in the high school. This was due to the fact that many teachers at this particular high school teach courses to multiple grade levels. Teachers were asked to identify which grade levels they teach on the survey.

Analysis

After the survey was given, I was able to gather and measure the data to discover if there exists an ongoing issue (trend) of cyberbullying among high school students. I used descriptive statistics to analyze the data, which provided, "simple summaries about the sample and the responses to some or all of the questions" (Fink 2013, p. 116). By using descriptive statistics, I was able to provide the results of the survey in a clear and easily understood manner.

Human Subjects Committee Process

In order to begin my investigation into the status of cyberbullying in the school, I had to fill out the required form for the Hamline University Internal Review Board

Human Subjects Committee to review. This form ensured that minors were protected and the study was valid and was based on research. I needed to use the long form as the surveys were conducted with teachers and administrators at a high school. Survey data was kept confidential as only the researcher had access to the results through a secure login and password. The only identifying information was "high school," "teacher" or "administrator." Once the research was completed, the data was permanently deleted. As such, the risk to participants was non-existent. All participants were free to complete the survey or stop taking it at any time.

Conclusion

I began Chapter Three by restating my concern that BYOD has led to an increase in cyberbullying during the school day in high school. I continued by discussing the need to complete a survey of students, teachers, and administrators at the school to gather data on whether or not BYOD has led to an increase in cyberbullying within the high school.

The setting was described in the chapter as a medium-sized high school in the suburbs of a major Midwestern metropolitan area in the United States of America. Though it is a private high school, many different socioeconomic statuses were present in the student body, thus making it typical compared to what is found within other suburban public and private high schools. It was decided that sampling would not be used because the total number of eligible participants was manageable total of 40.

What is Next?

In the following chapter, the results of the student, teacher, and administrator survey are discussed. Conclusions will be drawn from the data in order to conclude whether BYOD has led to an increase of cyberbullying incidents in the high school.

CHAPTER FOUR

Results

Introduction

Chapter Four describes the data analyses using the results of the online survey completed by teachers and administrators at a high school with a Bring Your Own Device (BYOD) technology policy. The purpose of the capstone was to look at the issue of cyberbullying in a school that has recently unveiled BYOD. The following research question was developed: *How has bring your own device affected cyberbullying in a high school?*

Analysis of the data from the teacher and administrator survey on cyberbullying is organized in this chapter as it pertains to the capstone's research question. First the results of participation will be discussed. Next, using descriptive statistics, results will be presented on how confiscation of student technology decreased with BYOD. Finally, the results from participants' perceptions of cyberbullying will be presented.

Survey Participation

The survey began with an email that was sent on Thursday March 31, 2016 to all teachers and administrators in the high school explaining the purpose of the survey and included a hyperlink to access it (see Appendix B: *Teacher and Administrator Consent Letter*). On the morning of Thursday April 7, 2016, another email was sent out to all teachers and administrators reminding them the survey concluded at the end of the school day. The survey closed with 26 teachers and four administrators ($N = 30$) having completed the survey. Item 1 asked the respondents to identify if they were a teacher, administrator, or both a teacher and administrator. The response rate for the teachers was

72% (*n* = 26) and 100% (*n* = 4) for the administrators, with one identifying him/herself as

both a teacher and administrator at the school. Item 2 asked teachers to select which

grade levels (9-12) they taught. The results showed that teachers from all grade levels

participated in the survey. I used descriptive statistics to analyze the survey data and draw

an answer to the research question, *"How has bring your own device affected*

cyberbullying in a high school?"

Descriptive Statistics

Descriptive statistics were used to analyze the data, which provided, "simple

summaries about the sample and the responses to some or all of the questions" (Fink

2013, p. 116). The survey included questions from three distinct themes, which are: bring

your own device (BYOD), teacher/administrator perceptions of cyberbullying, and

incidents of cyberbullying before and after BYOD.

Bring Your Own Device and Confiscated Devices

Items 18 and 19 on the teacher and administrator survey asked questions

regarding the confiscation of devices before and after the BYOD technology policy was

implemented. These items inform the research question because they address student

access to devices, and in turn, the ability to cyberbully. Item 3 in the survey asked

whether teachers and administrators allow students to use their own devices. It was found

that 93.3% (*n* = 28) of participants allow students to use their own devices either all or

part of the time. Ordinarily, when teachers and administrators at this school find students

using technology inappropriately they are allowed to confiscate student devices. This was

addressed in two questions in the survey.

The survey also asked two questions, items 18 and 19, about confiscating student devices. Item 18 on the survey asked, "How many times per week did you confiscate student devices before BYOD began?" Seventy percent of participants ($n = 21$) confiscated devices on a weekly basis. Almost 17% (16.7%, $n = 5$) confiscated six or more devices per week before BYOD. Item 19 asked how many times per week teachers and administrators confiscate devices since BYOD began. Confiscation of devices fell to 56.7% ($n = 17$) with only 10% ($n = 1$) responding that they confiscate more than six devices per week.

What is most striking is that the number of teachers who do not confiscate any devices more than doubled since BYOD began. Prior to BYOD, 20% ($n = 6$) confiscated zero devices, whereas 43.3% ($n = 13$) confiscated zero devices since BYOD began. The data contained in Table 1 below show that confiscation of student devices has decreased with the implementation of the BYOD student technology policy. It is clear that confiscation of student devices declined with the implementation of the BYOD student technology policy. As seen in Table 1, fewer teachers are confiscating devices after BYOD 56.7 % ($n = 17$) than before BYOD 70% ($n = 21$).

Table 1

Items 3, 18 & 19

Item 3: *"Do you allow students to use their own devices (smartphone, iPad, laptop, etc.) in your classroom?*			*n*	Percentage
Yes (1)			13	43.3
No (2)			1	3.3
Sometimes (3)			15	50
I Don't Know (4)			1	3.3
Minimum = 1	Maximum = 4	Median = 3	Mean = 2.13	SD = 1.04
Item 18: *"How many times per week did you confiscate student devices (smartphones, iPads, etc.) before BYOD began?*			*n*	Percentage
0 (1)			6	20
1-5 (2)			16	53.3
6-10 (3)			2	6.7
11-15 (4)			2	6.7
16 or more (5)			1	3.3
I don't know (6)			0	0
Not employed at the school (7)			3	10
Min = 1	Max = 7	Median = 2	Mean = 2.6	SD = 1.75
Item 19: *"How many times per week do you confiscate student devices (smartphones, iPads, etc.) since BYOD began?*			*n*	Percentage
0 (1)			13	43.3
1-5 (2)			14	46.7
6-10 (3)			3	10
11-15 (4)			0	0
16 or more (5)			0	0
I don't know (6)			0	0
Min = 1	Max = 3	Median = 2	Mean = 1.66	SD = 0.66

Teacher Perceptions of Cyberbullying

Responses to the survey show teachers' perceptions of cyberbullying. The responses to these questions relate to the research question by addressing teacher and administrator perceptions of cyberbullying in a school with BYOD. In the table below, responses to four questions are addressed, each dealing with students taking pictures of each other without permission.

Item 4 asked "Have you ever witnessed a student taking a picture of another student in your classroom without their permission?" 73.3% ($n = 22$) responded that they had. Additionally, 86.6% ($n = 26$) of teachers and administrators responded that they would consider a student taking a picture or video to be a violation of their classroom policy. For item 20, which asked, "In your experience, are students using their devices more often for non-academic purposes in the hallway/passing time since BYOD began," 83.3% ($n = 25$) of respondents replied "yes." The responses to these items show that students are using their devices inappropriately to take pictures and video of each other. See Table 2 below for participant responses on teacher and administrator perceptions of cyberbullying.

Table 2: *Items 4, 20, 21, 22, & 23*

Item 4: *"Have you ever witnessed a student taking a picture of another student without their permission?"*			*n*	Percentage
Yes (1)			22	73.3
No (2)			6	20
I don't know (3)			2	6.7
Min: 1	Max: 3	Median: 1	Mean: 1.3	SD: 0.61
Item 20: *"In your experience, are students using their smartphones or other devices for non-academic purposes more often in the hallway/passing time since BYOD began?"*			*n*	Percentage
Yes (1)			25	83.3
No (2)			1	3.3
I don't know (3)			1	3.3
Not employed at the school before BYOD (4)			3	10
Min: 1	Max: 4	Median: 1	Mean: 1.4	SD: 0.97
Item 21: *"How many times per day do you see a student sneaking a picture or video of another student who does not know his/her picture is being taken?"*			*n*	Percentage
0 (1)			11	36.7
1-5 (2)			8	26.7
6-10 (3)			2	6.7
11-15 (4)			1	3.3
16 or more (5)			2	6.7
I don't know (6)			6	20
Min = 1	Max = 6	Median = 2	Mean = 2.8	SD = 1.75
Item 22: *"In your opinion, is a student taking a picture or video of another student without his or her consent an act of cyberbullying?"*			*n*	Percentage
Yes (1)			15	50
No (2)			6	20
I don't know (3)			9	30
Min: 1	Max: 3	Median: 1	Mean: 1.8	SD: 0.89
Item 23: *"Would you consider a student taking a picture or video a violation of your classroom policy?"*			*n*	Percentage
Yes (1)			26	86.7
No (2)			2	6.7
I don't know (3)			2	6.7
Min: 1	Max: 3	Median: 1	Mean: 1.2	SD: 0.55

Overheard Student Concern

Also asked in the survey were questions regarding what teachers had overheard

from students and if they had been approached by a student regarding cyberbullying. Of

those who participated in the survey, 40% ($n = 12$) overheard students talking about being cyberbullied, and 26.7% ($n = 8$) had a student approach them with concerns about cyberbullying.

It can be seen in table 3 the participants do overhear students talking about cyberbullying incidents with 40% ($n = 12$) responding yes to item 5. However, 26.7% ($n = 8$) of teachers responded yes to item 6, which asked if they have ever had a student approach them regarding concerns about cyberbullying. Responses to these items show that teachers are overhearing students talking about cyberbullying, but reported incidents are lower. The responses to items 5 and 6 are contained in Table 3 below.

Table 3

Items 5 & 6

Item 5: *"Have you overheard students talking about being bullied through technology?"*			n	Percentage
Yes (1)			12	40
No (2)			18	60
I don't know (3)			0	0
Min: 1	Max: 2	Median: 2	Mean: 1.6	SD: 0.50
Item 6: *"Have you ever had a student approach you with concerns about another student bullying them through technology?"*			n	Percentage
Yes (1)			8	26.7
No (2)			22	73.3
I don't know (3)			0	0
Min: 1	Max: 2	Median: 2	Mean: 1.7	SD: 0.45

Cyberbullying

When it comes to cyberbullying, the results are not so clear. In fact, 43.3% ($n = 13$) of participants responded "I don't know" to item 24 which asked whether cyberbullying has increased since the school has implemented the BYOD technology policy. As discussed in Chapter 2, cyberbullying does not occur out in the open. Peter Smith and Robert Slonje (2008) stated, "Cyberbullying is not a face-to-face experience"

(p. 148). Cyberbullying happens, contrary to traditional bullying, behind the screen of technology creating this perception of anonymity for the bully. The data from the survey shows that teachers and administrators cannot be sure the effect BYOD has had on cyberbullying because it is, by its nature, so difficult to see; however, when asked in item 25 if restricting student use of technology would reduce cyberbullying, 43.3% ($n = 13$) responded that it would not, 33.3% ($n = 10$) responded that it would, and 23.3% ($n = 7$) responded that they did not know. Perhaps the respondents understand, as what was discussed in the previous chapters, (Adams, 2012; Bruder, 2014; McCrea, 2015) the importance of technology in the classroom and its effectiveness in learning. See Table 4 for a breakdown of items 24 and 25.

Table 4

Items 24 & 25

Item 24: *"In your experience, has cyberbullying increased since the school has implemented the BYOD technology policy?"*			n	Percentage
Yes (1)			6	20
No (2)			8	26.7
I don't know (3)			13	43.3
Not employed at the school before BYOD (4)			3	10
Min: 1	Max: 4	Median: 3	Mean: 2.43	SD: 0.94
Item 25: *"In your experience as a teacher or administrator, whether at this school or elsewhere, would restricting student use of technology reduce cyberbullying?"*			n	Percentage
Yes (1)			10	33.3
No (2)			13	43.3
I don't know (3)			7	23.3
Min: 1	Max: 3	Median: 2	Mean: 1.90	SD: 0.76

Cyberbullying Complaints Prior to BYOD and After BYOD

The purpose of the capstone was to look into whether or not BYOD has led to an increase in cyberbullying incidents at a high school. A majority of the survey (see

Appendix A: *Teacher and Administrator Survey on Cyberbullying*) asked participants to recall complaints received from students, parents, as well as discussions they had with each other regarding cyberbullying before and after BYOD.

A number of interesting phenomena were observed regarding complaints from students and parents as well as discussions teachers had with each other. Overall, it can be seen that student complaints about cyberbullying actually decreased after BYOD from 36.7% ($n = 11$) to 30% ($n = 9$). Complaints of cyberbullying received from parents increased, from 23.3% ($n = 7$) before BYOD to 36.7% ($n = 11$) after BYOD. Teachers and administrators increased their discussions with each other regarding cyberbullying from 63.3% ($n = 19$) before BYOD to 70% ($n = 21$) after BYOD was implemented. In Table 5 below the data revealed that cyberbullying complaints decreased from students, increased from parents, and was discussed more among colleagues.

Table 5

Effects of Cyberbullying Pre-BYOD and Post-BYOD

	Pre-BYOD					
	Yes (1)		No (2)		I Don't Know (3)	
N = 30	%	*n*	%	*n*	%	*n*
Student complaints	36.7	11	53.3	16	10	3
Discussed with colleagues	63.3	19	23.3	7	13.3	4
Parent complaints	23.3	7	66.7	20	10	3
Min 1	Max 3	Median 2	Mean 1.7		SD 0.66	
	Post-BYOD					
	Yes		No (2)		I Don't Know (3)	
N = 30	%	*n*	%	*n*	%	*n*
Student complaints	30	9	70	21	0	0
Discussed with colleagues	70	21	30	9	0	0
Parent complaints	36.7	11	63.3	19	0	0
Min 1	Max 2	Median 2	Mean 1.5		SD 0.50	

Conclusion

      The research question asked how bring your own device has affected

cyberbullying and a survey of teachers and administrators was completed to gain data on

the topic. Descriptive statistics were used to analyze specific items from the teacher and

administrator survey to provide, "simple summaries about the sample and the responses

to some or all of the questions" (Fink, 2013, p. 116). The results of the analysis showed

that concern exists for cyberbullying among teachers and administrators. In the following

and final chapter I reflect on the major discoveries and limitations of the research as well

as lasting implications for administrators, teachers, and students as more technology is

utilized within the classroom.

<u>What is Next?</u>

In the following chapter I draw conclusions based on the data presented in this chapter as I attempt to answer my research question which is, *How has BYOD affected cyberbullying in a high school?* I also revisit the literature review and the survey that was created to gather data cyberbullying and BYOD in my school.

CHAPTER FIVE

Conclusion

Introduction

I began this capstone project seeking to look into the issue of cyberbullying as it related to the school technology policy of BYOD (Bring Your Own Device). In my first chapter, I discussed the genuine concern I had as a reflective practitioner about student safety and the multiple devices they use for education and to socialize with friends and family. I also discussed the important place of technology in the education of students through their high school years as they prepare for adulthood. The skills high school students learn in order to effectively utilize technology in their learning experience cannot be overstated; technology has a very important role in education. However, I also discussed that technology can also be used for very negative purposes, particularly in my research, to cyberbully others during the school day. It is through this concern for students that the following research question was developed, *How does bring your own device affect cyberbullying in a high school?*

With my research question established, I began the second chapter of this capstone in a quest to research the development of cyberbullying and I found it to be a modern evolution of the traditional schoolyard bully who made his/her threats in person. I found there to be many definitions of cyberbullying. For the purpose of my research I used the following definition: "Being cruel to others by sending or posting harmful material or engaging in other forms of social aggression using the Internet or other digital technologies" (Simmons & Bynum, 453). I then looked at the rise of cyberbullying as a modern evolution of the schoolyard bully. The prevalence of student-owned technology

was examined and research on the BYOD technology policy was discussed. The research revealed that students are using their smartphones for school, as well as to socialize in a virtual world. A study completed for the Centers for Disease Control (CDC) in 2009, found that 9-35% of students had been the victim of cyberbullying (David-Ferdon & Hertz, 2009). With so many students carrying smartphones, an article in *Education Digest* (2014) stated that "half of students carry a smartphone" (p. 51). With so many students having access to the Internet and social media applications, my concern grew for cyberbullying in a school with BYOD. Through the research completed in Chapter Two, I found my concern for student safety had grown, but so did my desire to see if the technology policy of BYOD had affected cyberbullying incidents at the high school where I teach.

<u>New Discoveries</u>

I conducted a cross-sectional survey of teachers and administrators at the high school where I taught to discover whether or not the BYOD technology policy has had an impact on cyberbullying incidents during the school day. The survey was completed by 26 teaching faculty and four administrators (N = 30). What I found was that many teachers and the administrators simply do not know if BYOD has led to an increase in cyberbullying.

Item 24 of the survey asked teachers and administrators if cyberbullying had increased at the school since BYOD had been implemented and 43.3% (*n* = 13) responded "I don't know." This aligns with the research discussed in Chapter Two when Peter Smith and Robert Slonje (2008) stated, "cyberbullying is not a face-to-face experience" (p. 148). Cyberbullying happens behind the screen of technology, it is less

visible than traditional bullying. The results from the survey support what other researchers had previously discussed that cyberbullying is difficult to identify and it may be happening without teachers and administrators recognizing it.

As technology use in the classroom increased with BYOD, there was a decrease in the number of devices that were confiscated by teachers and administrators. As more students have greater access to their devices the possibility of cyberbullying could occur increases. It can be seen in its definition that cyberbullying requires the use of a device that can access the Internet and communicate with others virtually.

The frequency of device confiscation pertains to my research question due to the fact that without technology students would not be able to cyberbully. As noted in items 18 and 19 in the survey (see Table 1), confiscation of devices declined from 70% ($n = 21$) before BYOD to 56.7% ($n = 17$) after BYOD was implemented. Additionally, of those participants who confiscated devices before BYOD, 16.7% ($n = 7$) confiscated more than six devices per week versus only 10% ($n = 3$) after BYOD. Although fewer devices were confiscated, 93.3% ($n = 28$) of teachers allow students to use devices in the classroom. Students having and using their own devices is necessary in a school with BYOD. As Bruder (2014) stated, "The theory is that allowing students to use technology they are familiar with encourages participation in the classroom" (p. 15). Bruder points out the essence of BYOD, which involves students using their own devices. This creates a dilemma for the classroom teachers and administrators who are in the position to decide whether or not to confiscate devices from students. When devices are confiscated, students lose the ability to use technology for education. This dilemma explains the

decrease in confiscation of student devices and also explains why a majority of teachers from the present study allow their students to use technology in class.

Item 3 of the survey asked teachers if they allow students to use their own devices in class (see Table 1). When the results of participants who responded "yes" and "sometimes" to item 3 are combined, 93.3% ($n = 28$) of teachers allow students to use technology in the classroom at least some of the time. In fact, only 3.3% ($n = 1$) do not allow students to use their own devices ever in the classroom. The data shows the participants have welcomed technology into their classrooms. This is supported by Bruder (2014) when she discussed the many different ways BYOD can be used successfully in the classroom. It could be that cyberbullying has increased with BYOD because fewer devices are being confiscated and a majority of teachers allow their students to use technology in class. Although great work and education is likely happening with devices in the classroom as Bruder (2014) mentioned, it is also possible for cyberbullying to be happening as a student must have access to technology to do so.

<u>Discussing Cyberbullying</u>

Though cyberbullying is difficult to notice, it was discussed by teachers and administrators in the present study, and complaints were made from parents and students. Many items on the teacher and administrator survey (see Appendix A: *Teacher and Administrator Survey*) asked about teacher and administrator discussions with students, parents, and each other regarding cyberbullying. Results indicate that 40% ($n = 12$) of respondents have overheard students talking about being cyberbullied, and 26.7% ($n = 8$) have had a student approach them about an incident. This data is supported by the research conducted by Roberto et al. in their article, *Prevalence and Predictors of*

Cyberbullying Perpetration by High School Seniors (2014). According to this article, nearly 35% of college freshmen reported being a cyberbully at least once during their senior year of high school (p. 105).

Interestingly, in the present study, complaints received from students actually decreased from 36.7% ($n = 11$) to 30% ($n = 9$) of respondents answering "yes" to the question regarding whether or not they had received complaints from students. This decrease in students reporting concerns for cyberbullying may be explained by a recent survey conducted by the Pew Research Center (2015), which found that 74% of teens in the study had a smartphone (Pew Research Center, 2015). It may be implied that students are not reporting cyberbullying incidents because it may increase the risk of losing their ability to use their own devices. Prior to BYOD, students were not allowed to use their devices, so the risk of losing access did not exist.

When it comes to parental complaints, the opposite was recorded in the data. Complaints from parents increased slightly from 23.3% (n = 7) before BYOD to 36.7% (n = 11) after BYOD (see Table 5). This increase is supported by Simmons & Bynum (2014). They discussed how parents play an important role in protecting their children online (p. 454). The increase from pre-BYOD to post-BYOD may be explained do to the knowledge and acceptance of parents that students at the school are allowed to use their own devices in school.

Implications

The results of the data analyses showed that teachers and administrators did witness a typical behavior that is common among cyberbullies, which was students taking pictures of other students without their permission (see Table 2). Although this may not

actually be cyberbullying, the action lends itself to concern. In the survey 73.3% ($n = 22$) of participants reported that they had seen a student take a picture or video of another student without their permission. A majority, 86.7% ($n = 26$), responded that they would consider such an action a violation of their classroom policy. Additionally, 50% ($n = 15$) would consider a student taking a picture or video of another student without their permission an act of cyberbullying. This discovery in the data analyses was interesting to me because while student complaints went down, parent complaints and concern among teachers increased. A reason for the increase in teacher concern may be because 40% ($n = 12$) of replied "yes" to item 5, which asked if they had ever overheard students discussing cyberbullying with each other. While not a majority, 40% ($n = 12$), shows that students are discussing cyberbullying in school (see Table 3). Additionally, the data reveals that actions typical of cyberbullying were being witnessed at school. A majority of teachers consider this to be a violation of their classroom policy, and half considered it cyberbullying. However, the results are inconclusive as to whether or not cyberbullying has increased due to BYOD.

When asked if cyberbullying has increased with BYOD 43.3% ($n = 13$) responded "I don't know" to item 24. Only 20% ($n = 6$) replied "yes" that cyberbullying has increased with BYOD and 26.7% ($n = 8$) replied "no" that it had not increased. Indeed, it appears plausible that cyberbullying incidents may be occurring in this particular high school; however, as the research in Chapter Two acknowledges, such incidents are not witnessed or identified as such (Simmons & Bynum, 2014; Smith & Slonje, 2015). While results showed an increase in non-academic student use of technology during school, fewer complaints of cyberbullying were reported by students.

The lasting implications for this research are important because it serves as a reminder for teaching professionals to be cognizant of the negative consequences technology can have in our classrooms and schools. The results of the survey were supported by the research in Chapter Two that cyberbullying happens with technology, but technology is also vitally important in education.

Limitations

As a cross-sectional survey, this research only occurred once. As such, the data on complaints received may not be accurate as they required the recollection of information that was two years old. This may have led to invalid data. Additionally, 10% ($n = 3$) of the respondents were not employed at the school before BYOD was initiated. As a result, they could not respond to those questions.

The survey also relied on the perceptions of cyberbullying in the school rather than on actual occurrences that may have been revealed in a survey of students. As is the case with cyberbullying, cyberbullying happens behind the screen of technology. As Robert Smith and Peter Slonje (2009) made known in their research, cyberbullying can be difficult to spot. It is not, as they say, "a face-to-face experience" (Smith & Slonje, 2009, p. 148). Cyberbullying is difficult to spot and this reflects a limitation of the survey because it relied on recollections from teachers and administrators. Although the limitations of the survey must be acknowledged, the results are still valuable because they provide an insight into the modern issues of cyberbullying and the utilization of student owned technology in the classroom through initiatives such as BYOD.

<u>Future Research</u>

After identifying a research question, looking at the research, designing and administering a survey of teachers and administrators, and analyzing the results of the survey on the effects of cyberbullying in a high school with BYOD. There is still more to learn about cyberbullying. It would be interesting to conduct a survey of the students at the same high school in order to determine if cyberbullying is occurring in higher rates than teachers or administrators are aware.

In order to reduce cyberbullying, an anti-cyberbullying or digital citizenship curriculum could be created to teach students about being safe on the Internet. Researching modern curricula that pertains to student safety on the Internet is well discussed in research. In the article, *Cyberbullying: Six Things Administrators Can Do* (2014), Simmons and Bynum discuss the need for administrators and teachers to develop a curriculum that not only educates students, but also parents, teachers, and administrators (p. 454).

As the research showed in Chapter Two, technology in schools and in the hands of students is a good thing and it is a necessary tool in learning (Adams, 2012; Bruder, 2014; McCrea, 2015). However, our lessons must not forget the importance of teaching our students the valuable and necessary skills of knowing how to use technology responsibly. Designing and implementing a responsible-use curriculum is immensely beneficial.

<u>Professional Development</u>

Throughout the process, I have been stretched to learn more about a modern evolution to an age-old problem known as the schoolyard bully. As part of the spoken

agreement to conduct research with my principal, I will share the results of the survey during fall workshop week. Though this research began as a personal quest to determine whether or not BYOD had led to an increase in cyberbullying incidents, I now look forward to sharing the results of this study with my colleagues at the high school, discussing the results with them, and developing new strategies and lessons in order to decrease cyberbullying while accepting the important value of technology in the classroom.

<u>Conclusion</u>

In this chapter I discussed the results found in the survey of teachers and administrators and drew conclusions. A concern exists that cyberbullying may be happening in the high school with BYOD. More teachers and administrators are allowing students to use devices in the classroom and fewer are confiscating devices from students. With more devices being used in the classroom and fewer being confiscated, the opportunity to cyberbully increased due to its nature of requiring a device to connect to the Internet. Results from the data showed that teachers believed the action of taking a picture of another student without his/her permission was a violation of their classroom policies and 50% ($n = 15$) believe it to be an act of cyberbullying. While understanding that such actions may not actually be cyberbullying, I concluded that such an action does create a cause for concern. Finally, the limitations of this study were also presented and future research, such as a survey conducted of the student population of the school, were discussed.

The evolution of technology in the classroom is ongoing. It is our job, as professional educators, to continue the research, to conduct studies, and to share those

results with each other. I have learned a tremendous amount about myself, growing as a researcher and as an educator through the master's program and the capstone process. With the end of this project comes the responsibility for continued research into classroom technology use and the constant threat of cyberbullying. As this capstone project has shown, the use of technology in the classroom is important but so too is the need for teachers and administrators to be aware of cyberbullying as it is not easily witnessed.

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APPENDIX A: *Teacher and Administrator Survey*

Teacher and Administrator Survey:

Your identity will be kept anonymous. The only identifying information I will collect will be your title "Teacher" or "Administrator" and the grade level(s) that you teach. Nowhere in the results of this survey will your name, gender, or courses taught appear or be used in the final version of this capstone paper.

Please only complete this survey one time.

For the purpose of this survey, the following definition of cyberbullying will be used: "Being cruel to others by sending or posting harmful material or engaging in other forms of social aggression using the Internet or other digital technologies" (Simmons & Bynum, 453).

Questions
1. Please indicate your role:
    A. Teacher
    B. Administrator
    C. Both teacher and administrator
2. What grade level(s) do you teach? Select all that apply.
    A. 9th
    B. 10th
    C. 11th
    D. 12th
3. Do you allow students to use their own devices (smartphone, iPad, laptop, etc.) in your classroom?
    A. Yes
    B. No
    C. Sometimes
    D. I don't know
4. Have you ever witnessed a student taking a picture of another student in your classroom without their permission?
    A. Yes
    B. No
    C. I don't know
5. Have you overheard students talk about being bullied through technology?
    A. Yes
    B. No
6. Have you ever had a student approach you with concerns about another student bullying them via technology?
    A. Yes
    B. No
    C. I don't know

7. Prior to the technology policy of BYOD, did you ever receive a complaint from a student about cyberbullying at school?
- A. Yes
- B. No
- C. I don't know

8. If yes, approximately how many complaints did you receive in the 2013-2014 school year?
- A. 1-5
- B. 6-10
- C. 11-15
- D. 16 or more
- E. I don't know
- F. This item does not pertain to me (I answered No on item 6)

9. Prior to the technology policy of BYOD, did you ever discuss cyberbullying at school with a colleague?
- A. Yes
- B. No
- C. I don't know
- D. This item does not pertain to me (I was not employed at the school before BYOD)

10. If yes, approximately how many instances did you and a colleague discuss cyberbullying for the 2013-2014 school year?
- A. 1-5,
- B. 6-10,
- C. 11-15
- D. 16 or more
- E. I don't know
- F. This item does not pertain to me (I answered No on item 8

11. Since the BYOD technology policy has been implemented, have you received complaints from students about cyberbullying at school?
- A. Yes
- B. No
- C. I don't know

12. Since the BYOD technology policy has been implemented, have you heard colleagues express concerns about cyberbullying at school?
- A. Yes
- B. No
- C. I don't know

13. If yes, approximately how many instances have your heard colleagues express concern since January 2014.
- A. 1-5
- B. 6-10
- C. 11-15
- D. 16 or more
- E. I don't know
- F. This question does not pertain to me (I answered No to item 11)

14. Prior to BYOD, did you ever receive a complaint from a parent regarding cyberbullying at school?
    A. Yes
    B. No
    C. I don't know
    D. This item does not pertain to me (I was not employed at the school before BYOD)

15. If yes, approximately how many complaints have you received?
    A. 1-5
    B. 6-10
    C. 10-15
    D. 16 or more
    E. I don't know
    F. This question does not pertain to me (I answered No to item 13)

16. Since the BYOD technology policy has been implemented, have you received a complaint from students about cyberbullying at school?
    A. Yes
    B. No

17. In your opinion, has BYOD increased cyberbullying incidents within the school day?
    A. Yes
    B. No
    C. I don't know

18. How many times per week did you confiscate student smartphones before BYOD began?
    A. 0
    B. 1-5
    C. 6-10
    D. 11-15
    E. 16 or more
    F. I don't know
    G. This item does not pertain to me (I was not employed at the school before BYOD)

19. How many times per week do you confiscate student smartphones since BYOD began?
    A. 0
    B. 1-5
    C. 6-10
    D. 11-15
    E. 16 or more
    F. I don't know

20. In your experience, are students using their smartphones for non-academic purposes more often in the hallway/passing time since BYOD began?
    A. Yes
    B. No
    C. I don't know
    D. This item does not pertain to me (I was not employed at the school before BYOD)

21. How often per day do you see a student sneaking a picture or video of another student who doesn't know his/her picture is being taken?
    A. 0
    B. 1-5
    C. 6-10
    D. 11-15
    E. 16 or more
    F. I don't know
22. In your opinion, is a student taking a picture of another student without his/her consent an act of cyberbullying?
    A. Yes
    B. No
    C. I don't know
23. Would you consider the following situation a violation of your classroom policy? "One student taking a picture of another student during class time?"
    A. Yes
    B. No
    C. I don't know
24. In your experience, has cyberbullying increased since the school implemented the BYOD technology policy?
    A. Yes
    B. No
    C. I don't know
    D. This item does not pertain to me (I was not employed at the school before BYOD)
25. In your experience as a teacher, whether at this school or elsewhere, would restricting student use of technology reduce cyberbullying?
    A. Yes
    B. No
    C. I don't know

Appendix B: *Teacher/Administrator Consent Letter*

Teacher/Administrator Consent Letter

March 30, 2016

Dear Colleague,

I am completing a master's degree in education at Hamline University, in St. Paul, Minnesota. As part of my capstone, I plan to conduct research from March 31 – April 7, 2016. The results from my research will be printed and published in Hamline's Bush Library. The purpose of this letter is to request your participation in a survey of teachers and administrators.

The topic of my research focuses on determining whether the technology policy of Bring Your Own Device (BYOD) has affected cyberbullying incidents in a high school.

My research will be conducted through an online survey sent out to all teachers and administrators at our school. The survey includes 25 forced choice questions.

There is little to no risk for you if you choose to participate in the survey. The responses from each survey will be kept confidential. Your identity will be protected as the only identifying information will be teacher, administrator, or both a teacher and an administrator. Additionally, participating in this survey is voluntary. You are welcome to withdraw from the survey at any time without penalty.

I have received permission to do this research from Hamline University Graduate School of Education and the principal of the high school where the study occurred. The capstone will be cataloged in Hamline's Bush Library Digital Commons, a searchable electronic repository. The results might be included in an article in a professional journal or a session at a professional conference. In all cases, your identity and participation in this study will be confidential.

If you have any questions, please give me a call or send me an email. Thank you for your time and cooperation.

If you agree to participate, please keep this page and sign page two and return it to me no later than April 7, 2016.

Sincerely,

Patrick Maus
pmaus01@hamline.edu

Patrick W. Maus
pmaus01@hamline.edu

Dear Patrick Maus,

I have received your letter about completing an online survey for you between the dates of March 31 - April 7, 2016. I understand your goal is to better understand the issue of cyberbullying in our school.

By signing this letter, I agree to complete the online survey that is part of your capstone project at Hamline University. I understand there is little to no risk for me to participate in this survey. I also understand all of the results will be kept confidential and anonymous and that I may stop taking part in the research at any time without any negative consequences.

Signed:

_____

Date:_____