# STORIES OF DIGITAL LIVES:

# TEACHER-STUDENT RELATIONSHIPS IN

# SECONDARY CLASSROOMS AND DIGITAL SPACES

By

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# CHAPTER I

## INTRODUCTION

*As winter finally released its hold and the warm, windy days of spring commenced, I started to experience the first cries of the social media revolution breaching the classrooms and minds of Alexander Graham Bell High School. The brutal winter dumped record amounts of snow in the area, keeping school doors closed for two weeks. Sitting home in my pajamas monitoring the pages of Facebook and Twitter for district news of schools re-opening, the best sledding hills, and favorite snow day snacks, I watched boredom grow in the status updates of my students and teaching colleagues. Hilariously, conversations over sledding and snacks turned to required reading and historic rulers. I started to receive Facebook messages asking questions about Napoleon and the political systems of warring states from news headlines. The normally silly comments and distanced greetings on my social media pages became an educational forum. Had the snowstorm driven my students insane?*

*After we returned to the physical space of the school and its structured classroom time, the online exchanges waned, but I wondered if the experience had changed some of my students' minds on the educational value of social media. Within a few weeks, the activities director at Bell High launched a Twitter feed, and alerted school patrons to its existence, not through an email blast or TweetUp, but by posting the account name on the*

*outside school's marquee. I found this a curious convergence of the physical space of school crossing into the online world. Being familiar with Twitter—a member since 2008—I signed up for the feed . . . and I was not alone. Within a few days several dozen students, parents, and faculty followed, and these new followers started following me. Now I could see what my students ate for breakfast and read their frustrations with friends or homework. My students were watching me too. After I posted my emotional response to my favorite Lifetime television show, one student searched online for the show and watched it, telling me in class the next day how she also cried while watching the show. The strange social media revolution of Bell High has definitely begun.*

## The Digital Media Age

When Alexander Graham Bell invented the telephone in 1876, demonstrating the ability to send an electronic message from one room of a house to another (WGBH Educational Foundation, 2009), he sparked a communications revolution that continues to change the ways people interact to this day. We now live in an age where digital communications technology affects nearly every aspect of our lives. The internet, mobile phones, and television, and other communications media, allow us to be connected in ways we could not imagine a century ago. The term media, derived from a Latin word meaning "middle," refers to the channel or means of communicating a message (Merriam-Webster, 2011). In his groundbreaking book *Understanding Media*, Marshall McLuhan (1994) stated "The media is the message (p. 9)," forever changing our thinking on the influence that different communications media or channels have on the messages being sent and how they were perceived and received by persons on either side of the communications pathway (Severin & Tankard, 2001). The term media envelopes the communication channel used and

the messages being sent, and digital media refers to content and channels using the binary language of computers—ones and zeros (Severin & Tankard, 2001).

Alexander Graham Bell's telephone continues to be an important communications channel, along with other common media such as the television, radio, newspaper, magazines, and the internet. With the introduction of the personal computer and the internet, media researchers witnessed a shift in the ways we communicate. "We seem to be moving rapidly into a new, user-active, multimedia, communication environment," Severin and Tankard (2001) noted as most Americans now own several communications devices and tend to use them in tandem. Our reliance on the media for basic information and as a conduit for connections with others near and far has created a media saturated society where multiple media channels and communications technology mediate our relationships with others and with reality. Post-modernists questioned whether these mediated relationships represent our true selves or are they simulacra, or meaningless simulations of reality (Hatch, 2006). Within our media saturated and highly mediated world, the age old drama of teachers and students in classrooms goes on as if nothing has changed. Students forsake their two-inch thick textbooks in favor of five-ounce mobile phones, and teachers incorporate technology into classroom lessons by projecting slide shows on their interactive whiteboards. Is the technology to blame for the two groups inability to connect? Do teachers and students both desire the same things out of their mediated relationships?

## Statement of the Problem

As a secondary teacher, I feel as though I am daily engaged in a technological struggle with students—a conflict I must endure with two hands tied behind my back. Schools have employed their institutional power to create, impose, and enclose "physical and

ideological spaces" around technology and its approved educational uses (Goodson, Knobel, Lankshear, & Mangan, 2002, p. 5). Bell High School banned mobile telephones and other mobile internet devices from the classroom and restricted internet use to designated and often unavailable computer labs. As a result, I was afraid that Bell High and many other schools fail to equip students with the needed skills to navigate the digital world. Students craved the constant connection and access to information that mobile phones and the internet provide, but we were expected to teach in much the same way as our predecessors did a century ago (DeGennaro, 2008). Tapscott (2009) argued that this constant craving and connection to media has literally changed students' minds—altered their brain development. The combination of new children and the new media age equaled new literacies and new learning styles, but the changes in our fast-paced, interactive, media-saturated world, have been slow to arrive in the secondary education classroom (Buckingham, 2010; Prensky, 2010; Kist, 2009). "Young learners inhabit a world of burgeoning new literacies different in kind, scope, and purpose from conventional literacies and familiar languages forged in pre-digital times," Goodson, et. al. (2002) stated, but schools still cling to 20th century learning styles (p. 126). By infusing old curriculum with technology and extending learning into the online world, we gain a fighting chance in winning the war for our students' minds.

Bell High School, along with many schools around the country, was slowly trying to adapt to the changing digital world. Recently, I sat in a short professional development meeting and was surprised to hear our assistant principal encouraging teachers to use social media to connect with students and parents. The diverse reactions from the veteran teachers in the room ranged from total ignorance to the workings of social media to the classic fears of students invading one's personal life. As the self-proclaimed "techie teacher," I explained

the benefits of linking social media and education, but I failed in swaying recruits. Then the snow came and I wondered if the icy flakes washed away some the preconceived ideas towards social networking's value in creating digital learning experiences outside the school building. Kist (2009) has defended social media networks as valuable to education, but also understood teachers' fears, the lack of technology available, and the barriers schools throw in our path to creating a 21st century classroom. In his book, *The Socially-Networked Classroom*, Kist (2009) recommended that teachers take it slow, using whatever technology is available, and building learner-centered curriculum to engage students and equip them with the networking skills and digital literacies they need to survive our digital world.

Often the power structures and social hierarchies of the school stood in the way of creating this socially networked classroom where the roles of teacher and students reflected the more democratic nature of the internet (Gee, 2010; Goodson, et al., 2002; Henderson & Honen, 2008; Richardson, 2010; Sánchez, 2007). Web 2.0, an acronym for the interactive technologies available through the internet, is all about collaboration and networking, and often requires that teachers and students both take on the role of learner in a more democratic partnership. The new media age continues to reshape the power structures and social hierarchies within society and those without digital literacy skills or internet access may be left out our democratic process (Jenkins, 2008). Where we were once concerned over the widening digital divide, the gaps between those who have access to the internet and those who do not, we now worry if this Digital Age has created a "participation gap" that blocks the have-nots from engaging in social media and internet culture (Jenkins, 2009, p. 3). The fight for increased media literacy has joined with critical literacy as we face the fact that our students may be ill-equipped to function in this media saturated world. For this reason alone,

teaching media literacy skills and extending learning into digital spaces inside and outside the classroom could help students gain a foothold on their future place in society. In order to "create spaces of emancipation and equity" in education and pedagogical research, we must question these existing power structures, examine our place within those structures, and commit to open dialogue about these critical issues (Cary, 2006, p. 19).

Along with teaching students content and literacy skills, teaching with digital media has allowed my students learn proper online behavior through our online interactions. The teacher-student relationship is a precious, care-filled bond developed through trust, mutuality, sharing, and continual communication (Canary, Stafford, Hause, & Wallace, 1993; Noddings, 1986). Extending this relationship online can strengthen this bond and extend learning to new, shared spaces. My professional role as a teacher does not end with the final bell of the school day—not in the eyes of my students. Whether we run into each other at the grocery store or on Facebook, my professional role of the caring teacher stays intact, and students respect and listen to teachers that care (Van Maele & Van Houtte, 2011). The impact of a caring teacher also extends beyond the school walls and beyond a student's school years. Only a few studies have been done on the digital teacher-student relationships, and even fewer done at the secondary education level. My research studies attempts to fill this void in the existing literature by providing a glimpse into the digital lives and interactions of secondary teachers and their students.

## Research Purpose and Significance

In this study I take the nationwide concerns over digital literacy, digital learning tools, and online teacher-student relationships down to the scale of one large, urban high school. This study employed a qualitative teacher research approach where the digital and

classroom interactions of Bell High School's teachers and students were the focus of my research. Pedagogical research attempts to solve the problems in one's own classroom or school through a process of systematic inquiry, reflection, and action (Stringer, 2004). Through narrative inquiry—listening to, interacting, and re-storying interview and focus group data—I hoped to paint a picture of the digital lives of my participants and better understand how they use digital technology to interact. By using a teacher research approach, I was able to study the ways teachers and students used digital technology and interacted within digital spaces with more depth. Also, narrative inquiry added a richness and depth through "stories lived and told" that quantitative research could offer (Clandinin & Connelly, 2000, p. 20). As a teacher leader within the school, I was able to interact with both teachers and students more effectively than an outsider. It was also my hope that the inquiry process would cause my participants and I to reflect on the ways we use digital technology and social media in order to establish appropriate school and personal policies based on research and reflection.

In the past decade the emergence of Web 2.0 and social media led to increased calls for internet safety and the protection of our students against cyberbullying and internet predators. In a race to guard our youth, some school districts and state lawmakers banned teachers from interacting with students online as if teachers were an imminent threat to the safety of their students (Ewbank, Foulger, & Carter, 2010; Schworm, 2010). While teachers and students should act responsibly when dealing with any digital technology, I believed these rash reactions revealed a lack of reflection and research on how the technology positively affects learning and the teacher-student relationship. Research studies, such as this one, are needed to help teachers, parents, schools, and policy makers in making informed

decisions when dealing with social media and other new digital technology. According to David (2009), "Research on teaching digital *media literacy* is in its infancy" and often lagged behind the fast pace changes in digital technology (p.84). This study will add to the needed scholarship research on digital literacy.

## Purpose Statement

The purpose of this research study was to understand the perceptions both teachers and students held towards their online or digitally mediated interactions in order to improve relationships and communications between the two groups.

## Research Questions

This research study attempts to understand the meanings secondary teachers and students assign to online experiences, both within the classroom curriculum and outside of school with social networking and other sites. The main research question driving this qualitative study was:

RQ1: How do secondary teachers and students make connections using digital online media?

Through the study, I hoped to answer other related research questions, including:

RQ2: How do secondary teachers integrate digital technology into curriculum and pedagogy and for what purpose?

RQ3: What distinctions and commonalities do these digital teacher-student relationships hold?

Answering these research questions could shed light on the ways teachers and students are using digital media for educational and personal purposes.

## Subjectivity Statement

According to Tapscott (2009), I am a part of this "net generation" craving constant connections to all forms of media (p. 9)—a product of the Baby Boomer Echo, a Gen Y, a Millennial (p. 15). Prensky drew his digital native/digital immigrant divide on the axis of 1985, and I fall on the immigrant side of his line. I often felt I lay on the border, understanding both sides of this technological/ideological struggle. I taught older adults to use the internet when it became popular in the mid-1990's and now as a secondary teacher I teach teenagers to use the internet effectively. Media became my passion at the age of eight when a news crew came to my house to feature my single mother and me in a story on latch-key kids. I studied advertising media in high school and mass media communications in college. Now as a graduate student and teacher-researcher, I wanted my students, who have trusted the media since their days in the crib watching *Baby Einstein*, to become more aware of embedded media messages and values through media literacy education. I call myself "the techie teacher," and as a media savvy educator I have attempted to use social networking sites to connect with my students outside the classroom, but still question whether this endeavor was useful and effective. My training as a mass media communications professional influenced my beliefs in the positives effects of new media, but I know others do not share this opinion. As a researcher, I was not concerned over changing their minds, only in providing more information so they could make good decisions when it came to educating students about the media.

These are the reasons why the topic of media literacy was close to my heart as an educator. Since my introduction to the topic seven years ago, media literacy—and its various branches of digital literacy, multiteracies, multimodalities, digital media and learning

(DMAL), new media studies, and many more—continues to be a significant portion of my research interests and classroom pedagogy (Gee, 2010; Kist, 2009; Rogow, 2004). While the overarching goal for each of these disciplines may be the same, the purpose and driving forces were sometimes very different. The motivations for different groups ranged from increased learning, inoculation against media violence, explorations and understanding of cultural differences, to critical analysis of the power systems the media possess (Hobbs, 2005). Schwarz (2005) felt the "diverse definitions" and fragmented names for media literacy have hampered its acceptance by the educational community at large (p. 11). Although the topic has many names and research divisions, I embraced the definition established by Thoman and Jolls (2005) that described media literacy as an education movement focused on providing students, teachers, and parents with the necessary skills to "access, analyze, evaluate, and create" all forms of media (p. 190). Media literacy education focuses on media and technology as tools, not as the salvation or solution for all that ills education. It encourages critical thinking, active participation as an audience member, and the media user's ability to affect social change through media use (Schwarz, 2005).

## Definition of Terms

Learning in the new media age comes with a new vocabulary. For starters, the new media refers to interactive digital technology, such as the internet and video games (Bugeja, 2008), as opposed to old media (television, radio, magazines, etc.) that only offer only one-way communication. Most of the new media technologies discussed in this research study are defined below:

App: Short for application, apps are the software available on many digital communication devices, such as mobile phones, tablets, and computers. The computer giant

Apple made the term "app" popular through it advertisements and was awarded a trademark by the U.S. Patent Office in 2010 for the phrase "There's an app for that" (Gross, 2010). Apps are usually displayed as individual icons on these devices and each serve a different function or purpose.

Blog: Short for web logs, blogs usually refer to personal online journals or diaries. Blogging includes creating text, images, or other content for the online journal. Internet sites such as Blogger, WordPress, and LiveJournal are some of the most popular blog sites.

Clickers: Wireless remote devices that students use to interact with interactive whiteboard lessons. Smart Technologies, makers of the Smartboard, sell these devices to accompany the Smartboard and its software options (Smart Technologies, 2012).

Collective Intelligence: Or the pooling, processing, and production of knowledge by groups of people, as opposed to a single individual. This ability is essential for collaboration and group work and Jenkins (2009) considered it one of the most important skills for the 21st century learner.

Digital Divide: Refers to the lack of access to digital technology between different groups of people. The Pew Internet Research and American Life Project (2011) stated the best way to understand the digital divide was to think of internet access "as a spectrum, ranging from people who have never been online, to those who have dial-up or sporadic access, to those who have broadband at home and at work" ("Research on the Digital Divide," para. 1). The digital divide affects teachers and students, as well as democracy and power issues in American society.

E-reader: Short for electronic reader. E-readers are handheld computer devices especially designed for reading electronic books, magazines, or other forms of print media

traditionally found in paper. Popular e-readers include the Amazon Kindle, Barnes & Noble Nook, and the Sony Reader.

Facebook: A social media or social networking site established in 2004. Its creation has now been dramatized in the 2010 film *The Social Network*. According to the site, Facebook has over 845 million users and each user has an average of 130 friends (Facebook, 2012a).

Friends/Followers: These are the people or organizations connected to you through your social networking sites. On Facebook, you can become "Friends" with any of its 750 million users and see their posts or status updates on your Facebook page. On Twitter, friends are called Followers. You can choose to Followers from its 200 million users, including many celebrities, and their tweets will appear on your Twitter home page (Horn, 2011;Vuong, 2011).

Hashtag: Keyword(s) denoted by a "#" symbol used on the social media site Twitter. Hashtags allow Twitter users to classify their tweets and also act as search terms (Twitter, 2012).

Media Literacy: An educational movement focused on equipping individuals with the skills to read, write, create, comprehend, evaluate, and explain all forms of media. Created in response to the proliferation of the media and its apparent influence on our lives, media literacy attempts to produce active media consumers as opposed to passive media users. Media literacy education can be integrated into all curricular disciplines at every grade level.

Participatory Culture: Jenkins (2009) coined this term. It refers to interactive nature of the internet and the ways and means people use to create and share internet content.

Participatory culture is witnessed through social media, blogs, tags, video file sharing (YouTube), music file sharing, and other Web 2.0 tools.

Podcasting: Audio or video (sometimes called vodcasts) broadcasts created by internet users as online journals or discussions on topics of personal interests. By their nature podcasts are meant to be shared, usually downloaded from host sites such as iTunes, and listed to by those who share the same internets (Prensky, 2010).

Social bookmarks: Virtual bookmarks or notes that allow you to gather lists of useful websites, tag them with important search terms, and share them with others (Educause, 2005; Prensky, 2010).

Social Networks: Also called social media. According to Carter, Foulger, and Ewbank (2008), social networking sites are "interactive websites designed to build online communities for individuals who have something in common," such as students at the same school or membership in an organization, and want "to communicate across physical boundaries" (p. 681-686). Popular examples are Facebook, Twitter, and MySpace.

Smartboard: A brand name of interactive whiteboard, Smartboards allow teachers and students to interact with their computer through a touch screen surface (Smart Technologies, 2012).

Tablets: Small handheld computers, usually touch screened. Popular tablets include the iPad and Samsung GalaxyTab.

Tag: or Tagging. Internet-user created keywords that describe the content of the webpage. Often Tag keywords are displayed in a Tag Cloud, usually lists of words where some appear larger or smaller. The size of the word within a tag cloud tells you what

keywords are most often used. Social bookmarking sites use tags to catalog web pages by keyword.

Twitter: A social media networking site where users keep "Followers" updated through Tweets using less than 140 characters (Kist, 2009). Twitter has over 200 million users, many of whom are celebrities (Horn, 2011; Vuong, 2011).

Web 2.0: Nearly synonymous with new media, but Web 2.0 refers to the internet tools, software, applications, and digital hardware that we use to interact, collaborate, create, edit, and engage online.

Wikis: According to Kist (2009), the word Wiki comes "from the Hawaiian word for 'quick'" (p. 35). Wikis allow internet users to quickly create or edit an internet page. Wikis are also highly collaborative as users work together, pooling their knowledge, to create the Wiki's content. Wikipedia is the most popular of all Wikis, but classroom teachers can use sites like Wikispaces to create their own educational Wikis.

YouTube: This popular video sharing sites came online in 2005. It allows internet users to create, upload, and share videos with anyone with internet access. Prensky (2010) feels YouTube qualifies as an important Web 2.0 tool because it made video, traditionally a one-way communication tool, an interaction, two-way communication tool.

## Organization

This chapter introduced the challenges both secondary students and teachers face when attempting to integrate digital technology and social media into classroom curriculum, described the purpose and importance of the research study, established questions guiding the research study, acknowledged the researcher's stance and biases, and defined important terms related to the research study. Chapter II will review current literature on the topics of

teacher-student relationships, the concept of digital space, digital learning tools, classroom community outside and within digital space, the social responsibility of educators when dealing with digital media, various digital divides or inequities, as well as explain the theories of media literacy and communities of practice as they relate to my research. Chapter III offers an overview of the research methods and chapter IV presents the findings of the study. The final chapter will offer conclusions gathered through the research, as well as ways to move forward with this information.

# CHAPTER II

## REVIEW OF LITERATURE

*Continuing an ongoing discussion of technological progress, my current events class watched the PBS Frontline special Growing Up Online. The round tables and hunter green chairs held mostly juniors and seniors, with a smattering of sophomores lucky-or-unlucky enough to be taking a class with upperclassmen. I introduced the video, confessing that I not seen it in its entirety, but I felt the topic was of mutual interest. Most of my students agreed, offering personal comments on the pros and cons of the internet or video games. As the DVD started to play and PBS thanked its sponsors—especially the Viewers Like You (Thank You!)—I took a seat at an empty table in the back of the room with a handful of papers to grade. But soon the scenes on the screen took my full attention as students from various communities around the country explained their online lives—some simple, others quite risqué—and wondered out loud, "Where are their parents?" Hearing my comments, students began to speak out across the room, and I noticed my students and I were on different sides of some issues. Our main point of contention was the notion of a teenager's private online life. Projected on the large Smartboard screen, we watched Jessica Hunter, a young teenager girl describe her secret online life and transform from a bland suburban teen into enticing Goth model Autumn Edows. I too shared her parent's same fierce reaction to her secret life. But as*

*the teenage girl whined about how her parents invaded her privacy, forcing her to erase her social networking profiles and illicit photos, I found myself yelling at the screen: "You are a child! You don't have a private life!"*

*Used to my classroom antics, my outburst only prompted my students to laugh or lower their head in shame, but others spoke up in defense of the teenage girl. I admit I was too flabbergasted to delve into a deep discussion that day, missing a precious teachable moment, but we revisited the issue many times during the semester. I asked my students about their ideas of privacy and their concerns over Growing Up Digital themselves. The answers surprised me, some expressing fear of the future, others threatening revolt if they were forced to give up their online lives. How has the digital world changed life for my students?*

## Overview

In this study exploring the digital lives of teachers and students, it was important to investigate, analyze, and synthesize the existing literature related to digital teaching and learning. While many of the popular social networking platforms were less than a decade old, teachers and education scholars have been researching the impact of computers and other digital technologies on classrooms for over twenty-five years. While some of the literature in the following pages may be a decade old, much of it was written within the last five years as social networking has become an integral part of our digital lives. During the course of my pilot study in the fall of 2010, I spoke with teachers and students at Bell High School about their desires and concerns of digital technology in relationship to teaching and learning. These interview conversations shaped this literature review and guided me to the following topics: teacher-student relationships,

conceptualizing digital space, digital learning tools, improving classroom community, social responsibility, and the digital divide. This chapter ends with an explanation of my theoretical framework and a summary of my literature review findings.

## Teacher-Student Relationships

The teacher-student relationship is considered important to both educational experiences and social development of youth (Beutel, 2010). Students formed attachments with teachers, often naming a favorite teacher as one of the most important adult in their lives besides their parents (Beutel, 2010). Both students and teachers played different roles within this relationship, although some argued that these roles were changing in the current media age (McAnear, 2003; Prensky, 2010). As teachers, our identity is partly shaped by our relationships and interactions with students. Teachers also measured their professional success by their "positive interpersonal relationships" with students and other faculty (Doherty & Mayer, 2003, para. 10). A part of their role, teachers acted as an appendage of the school, the primary caregiver in the classroom, and the most visible contact for parents. Often teachers felt the tension caused by these sometimes divergent roles (Clandinin, et al., 2009). The teacher-student relationship can also be emotional (Doherty & Mayer, 2003), especially as students grow up and break free of this emotional bond.

To the teacher, care was a two-fold emotion, both showing concern for the well-being of the student as well as bearing the burden of worry that was inherent in that care (van Manen, 1990). Noddings (1986) called the teacher-student relationship a caring, ethical friendship where students and teachers "work together" toward the common goals of learning, success, and moral development (p. 509). But in this relationship, the teacher

bears the main responsibility of caring, ethical conduct, and "promoting the growth of those for whom we care" by instilling these same characteristics (p. 499). Although two parties were involved, the student, because of age, social situation, or lack of moral or cognitive development, cannot be fully responsible for poor relationship outcomes. In her qualitative study of student teacher relationship, Beutel (2010) confirmed that positive, "emotionally charged" teacher-student relationship improved student engagement and academic success (p. 83). In short, students worked for teachers who cared about them (Van Maele & Van Houtte, 2011).

In the early 1990's, communications researchers Stafford and Canary (1991) compiled a list of traits that made romantic relationships work. Subsequent studies have shown that these traits exist in other types of relationships (e.g. friends, relatives, business partnerships, and organizational publics) (Canary, et al., 1993; Grunig & Hon, 1999). These relational maintenance traits included: (1) openness, that is disclosure or listening to each other; (2) positivity, meaning the positive feelings or pleasantness expressed in the relationship communication, (3) sharing tasks, or how partners work together to reach common goals, (4) networking, or interaction with members of a partner's or a shared social group, and (5) assurances, or supporting and keeping promises to partners (Canary, et al., 1993; Ki & Hon, 2009a; Ki & Hon, 2009b; Wright, 2004). While these early studies involved face-to-face relationships, current research also explored relationships formed using digital technology, especially mobile phones and the internet.

The teacher-student relationship is a partnership formed in physical or online classrooms. The relational maintenance traits can be found in effective teacher-student

relationships. Lumpkin (2008) found trust to be an important component to the teacher-student relationship, stating, "Trust replaces apprehension or fear with confidence and openness. When students trust their teachers, an inevitable mistake is transformed from being a fear of failure into an opportunity to learn" (para. 2). Trust between teachers and students was built over time (Van Maele & Van Houtte, 2011) and fulfilled the requirements of openness and assurances in the relationship matrix. When students trusted their teachers they felt free to express their academic or personal concerns, and teachers, in turn, were able to give advice, which students were more likely to consider or heed from a trusted friend. According to Erikson (1968) and his psychosocial development theories, teenagers in the adolescence development phase looked for people to put their trust in and to prove they were trust-worthy themselves. Often they turned to friends or pop culture icons, but in the teacher-student relationship they found an ethical, caring friend with their best interest at heart.

As part of their relationship, students and teachers share the task of learning together. In the traditional classroom, the teacher controlled the students' learning experiences, but a learner-centered pedagogy placed students and teachers in a partnering role, and these partnerships required respect or mutuality (Henderson & Honan, 2008; Prensky, 2010; Sánchez, 2007; Richardson, 2010). Mihailidis and Heibert (2006) believed mutuality between teachers and students was the foundation on which teacher-student engagement was built. The teacher determined the class structure, but the student chose the level of the engagement and the type of relationship they built with the teacher (Doherty & Mayer, 2003; Mihailidis & Heibert, 2006). Student engagement hinged on finding out what students want and building an environment where "participatory and

mutual learning relationships" could flourish (Mihailidis & Heibert, 2006, "Towards mutual engagement," para. 2). These learning relationships can take place within the classroom or through the use of digital technology. Teachers often found it difficult to balance forming caring relationships with their students and providing a challenging learning environment for their educational success, but adding digital learning tools to the classroom experience could change this (Doherty & Mayer, 2003). New media technology, especially Web 2.0 tools and social media networks, created spaces where students and teachers work together to support learning and consequently improve their relationships (Doherty & Mayer, 2003; Kist, 2009; Richardson, 2010).

## Conceptualizing Digital Space

Since the emergence of computers and other digital media, educators have questioned technology's place in teaching and learning (Goodson, et al., 2002). Current educational movements, such as the Common Core standards, pushed for technology integration and information literacy skills as essential tools for K-12 learners (Ballard, 2010). While computer keyboarding was taught to students as young as first grade, this technological skill did not teach children how to live in the digital world of internet communities and social media. Digital space, or cyberspace, is still considered metaphorical or theoretical, but for the purpose of this study, the term is used to describe the interactions taking place in the online world of the internet (Light, 2011; Merriam-Webster, 2011; Severin & Tankard, 2001). Goodson et al. (2002) described cyberspace as "a distinctively new space co-existing with physical space" (p. 14). As educational theorists and researchers, Goodson et al. (2002) were especially concerned with the coexistence of the physical spaces of schools and classrooms with the virtual cyberspaces

of computer networks and the internet, as well as the apparent conflict between the two worlds.

Schools act as a main vehicle in the socialization of children and Goodson et al. (2002) argued that the institution of school was a "social technology" capable of surveillance, discipline, and control (p. 2). The mere introduction of cyberspace into the traditional structure of school caused power struggles between teachers, students, school leaders, and parents (Buckingham, 2007). Relating this conflict between the physical boundaries of schools and the metaphorical bounds of cyberspace, Goodson (2002) exercised Foucault's theory of *enclosure*. The tool of *enclosure*, or setting the aside of a different, bounded place, allowed order and discipline within a society or institution (Foucault, 1975). Used by schools, prisons, and other establishments, *enclosure* can be a physical, social, or categorical space, such as a grade level, classroom, or a label. Within *enclosure* "each individual has his own place; and each place its individual" (Foucault, 1975, p. 143), making people or ideas found out of place more identifiable and controllable.

Schools seemed to prefer the *enclosure* when it came to digital spaces, separating the social institutions of schooling from the social networks of the online world. Teachers showcased an array of technological bells and whistles, but students still failed to see "any relationship between the use of games and other technologies for leisure activities and the use of technologies required at school (Henderson & Honan, 2008, p. 92). Buckingham (2007) also noted the "widening gap" between what children experienced at school and their experiences outside the classroom and within the digital world (p. 193). One fear that arose from the melding of school and cyberspace was how the democratic

nature of cyberspace would challenge the structured social hierarchy and discipline of schools. Gee (2010) agreed, stating that digital media changed "the nature of groups, social formations, and power," especially "top-down power" (p. 35). Within cyberspace, the labels of teacher or student became flexible and often switched from their traditional classroom roles (Henderson & Honan, 2008; Richardson, 2010; Sánchez, 2007). The level playing field and anonymity of the internet may prompt students to lash out at teachers or attack their authority—an action that would not be permissible in most classrooms (Ackely, 2003). In speaking with teachers on this topic, I found this to be a real fear for educators. They believed that by engaging students in the online world, they would lose their credibility or role as an authority figure if they became online friends. This fear led some of them to reject the idea of expanding teacher-student relationships into digital space.

While the literature showed that digital teacher-student relationships may look different, the goal remained to make digital space "a virtual learning environment" (Light, 2011, "Appropriate Behavior," para. 2) where teachers and students could build community and shared learning experiences (Doherty & Mayer, 2003; Richardson, 2010). Digital space and the "always on" nature of the internet allowed students to engage with course content on their own time— two a.m., if they wanted—instead of regular school day hours (Light, 2011, "Appropriate behavior," para. 5). This expanded the traditional time and space boundaries of school and opened new avenues and access points for students to engage with classroom curriculum (Howard, 2005; Light, 2011; Trier, 2007). In this digital learning environment, both teachers and students shared the responsibility of teaching and learning (Richardson, 2010). Some teachers feared the

online classroom could replace the physical classroom or they would be forced to teach at two a.m. when their students were frequently surfing the web. While the literature concluded that teaching in digital spaces did require more up-front preparation and time spent online, teachers should not ignore the power of opening up digital spaces for learning (DeGennaro, 2008; Richardson, 2010). In the best use of cyberspace as a digital classroom, teachers and students expanded classroom learning into the digital world, taking special care to bring along classroom rules and behavior expectations (Light, 2011).

Much of the literature on digital space referred to ways teachers use the internet as a resource during the school day. This giant leap in transforming our thinking about digital teaching and learning begins with small steps, and the first step may be simulating the digital world within the physical school classroom by equipping students with skills that apply both inside and outside the classroom (Kist, 2009; McIntosh, 2009; Richardson, 2010). While I agreed with this concept, only a few studies discussed ways for teachers to connect the physical space of school to the virtual world of cyberspace outside of their role of teacher as educator. Light (2011) suggested teachers become role models, but the research did not provide a framework for teachers to step beyond their traditional role. This research study attempts to provide a clearer view of the teacher-student relationship in digital spaces and may reveal a framework for online teacher-student interactions.

When Goodson et al. (2002) penned *Cyber Spaces/Social Spaces* none of the now-popular social networking sites, such Facebook, Twitter, or MySpace, existed, yet the authors pin-pointed many of the threats the digital world posed to social and power

structures of schools. For educators, these challenges included: the time consumed to learn how to use the technology and, in-turn, to teach the technology and the "new literacies" emerging as a result (p. 126); developing a pedagogy to accommodate computers and other digital technology; the generational divide between those new to the technology and those born-into-it; and maintaining a comfort distance between personal and professional use of computer. Each of these topics still troubles teachers today with the emergence of social media networks and will be discussed through this literature review.

## Digital Learning Tools

Technology has continued to alter the ways teachers, students, and parents communicate, and with these new technologies came new social practices (Doherty & Mayer, 2003). Much of the literature about digital learning tools suggested uses for the new technology or offered best practice advice. It was important for educators to be familiar with these tools and understand the benefits and risks in order to provide the most effective learning experiences for students. Today's student continues to rely on their mobile internet devices. For example, media research giant Nielsen reported that many American teenagers spent less than six minutes a day talking on their wireless phones, but sent nearly 100 text messages, watched multiple mobile videos, and surfed the mobile web, often all at the same time (Nielsen Company, 2009). With students' reliance on their mobile devices, the internet, and social media, they expected these same digital connections within the school (DeGennaro, 2008). But mobile phones, especially, have been labeled as a distraction to the established learning process of the traditional classroom. Just as in the early days of the calculator, bringing the mobile phone in the

classroom stirred up a great deal of debate and controversy. As a high school teacher, I could not ignore the power of the mobile phone as a gateway to the information superhighway, but I also knew the distraction it posed for students who desired to remain connected to their friends at all times via text messages and social networking sites instead of the goings-on of my classroom.

While schools offered more technology within the classroom, such as computers, laptops, internet access, interactive whiteboards (Smartboards or Promethean boards) and interactive student response systems (often called clickers), many school districts shied away from offering wireless internet in the classroom or allowing mobile phones in the classroom. School policies labeled mobile phones as possible weapons that allowed students "to bully and abuse teachers" or usurp teachers' authority by posting comments, photos, and videos on social networking sites (Vaughan, 2009, p. 3). Others supported the use of mobile phones, especially smartphones, since they could be used as a "student's agenda, newsletter, homework helper, student handbook, hall pass, and much more," saving schools a lot of money (Harris, 2008, p. 22; Vaughan, 2009). Again, the goal of a socially networked classroom was for students to understand the difference between social interactions for school and those for personal reasons, and teaching students to behave accordingly (Light, 2011). Turning the mobile phone from a classroom distraction into an accessible learning tool could provide a staging ground to introduce the principles of media literacy, social networking, and digital learning spaces inside and outside the classroom.

The internet and its Web 2.0 tools led the way in reshaping the digital learning landscape. Richardson (2010) listed blogs, wikis, RSS feeds, social bookmarking,

podcasting, and social networking sites as the most popular and important Web 2.0 tools for educators. Most teachers used the internet to search for ideas or curricular content and to post homework or class agendas, but utilizing the World Wide Web to its fullest required interaction and communication between teachers, students, parents, and other stakeholders. All the tools listed above were useful to educators, but I have limited my discussion to the topics of the power of Web 2.0 and social media networks to transform digital teaching and learning and to strengthen teacher-student relationships.

*Web 2.0*

According to Jenkins (2009) the term Web 2.0 was created by Tim O'Reilly, a computer how-to-book publisher, to describe the transition of the internet from a system that encouraged searching and browsing information to the current system that supports creation, editing, sharing, and collaboration. Web 2.0 persuaded users to publish their thoughts via "words, images, video, and other media" through multiple internet media (Prensky, 2010, p. 103). Typical Web 2.0 tools include blogs, wikis, podcasts, social bookmarks, photo/video sharing sites and social networks. Digital learning advocates promoted the use of these technologies inside and outside the classroom. Web 2.0 is all about participation, collective intelligence, and collaboration—all of which could be taught in any classroom with or without the use of digital technology (Berger, 2010). In the Web 2.0 classroom, the teacher became the classroom facilitator instead of banker of knowledge (Campbell & Kimball, 2010; Freire, 2000; Levin, 2005; Prensky, 2010).

As Web 2.0 continued to become a new buzz term for education, many teacher-researchers tried out these tools in their own classrooms. Kitsis (2008), a high school English teacher, used the website Blogger to provide his students with an audience to

read and comment on their work. When reading an assigned book, students were paired up and required to discuss their knowledge online with 200-word minimum blog comments. Kitsis (2008) also posted reading questions on the blog site for students to access, answer, and discuss. When they felt comfortable with their work, Kitsis encouraged students take their polished papers to larger audiences outside the classroom by posting their work to wikis or other publishing sites for feedback. Blogs or wikis served as good choices for class discussion boards (Campbell & Kimball, 2010). By writing blog entries, posing questions, and posting works in progress, O'Hear (2009) believed that blogs allowed students and teachers to see their thoughts and progress over time. McIntosh (2009) saw the same results with podcasting, showing it improved students' ability to understand educational concepts, their communication with peers, and their ability work together.

In a qualitative case study investigating the uses of blogging in secondary education, MacBride and Luehmann (2008) used interviews and blog transcripts from a high school math teacher's classroom to explore the pedagogy behind blogs and other Web 2.0 tools. Mr. K, the veteran math teacher in the study, maintained separate blogs for each of the three courses he taught. In addition to his blog entries, he required students to write blog entries that explained the daily business in class, reflected on their individual learning, and supported peer collaboration through both praise and censure. Mr. K believed that classroom blogs help create reflective, student-centered learning communities inside and outside the classroom. Students turned to each other for academic support, and just as with Kitsis (2008) found, the students produced better work with an audience present. Class participation and engagement increased too. Students

credited online anonymity for their feelings of openness and the freedom to share their opinions because their peers were not present to judge them (Carter, Foulger & Ewbank, 2008; Kitsis, 2010; Kurutz, 2009; MacBride & Luehmann, 2008). MacBride and Luehmann (2008) also showed that blogging appealed to students' desire to engage with media and their comments confirmed how much blogging aided their understanding of the course material.

Another new method of collaboration seen with Web 2.0 allowed internet users to search, sort, and label information online via social bookmarking sites (e.g. del.icio.us, Digg, reddit, StumpleUpon). Educause (2005) considered social bookmarking a useful classroom tool because it allowed teachers and students to organize web pages by topics by interests, catalogue useful information in one online location, and share these resources with others online. DesRoches (2007) taught her high school students to use social bookmarks as an important part of the research process. Social bookmarking permitted "the distribution of reference lists, bibliographies, papers, and other resources" among teachers and students (Educause, 2005, p. 2). The math teacher-blogger Mr. K also used social bookmarking in association with his classroom blog which encouraged students to seek out the best online math resources to share with their peers (MacBride & Luehmann, 2008).

Social bookmarking relied on internet users to tag or label websites with keywords. The collaboration happened through what media scholars called "folksonomy" (Richardson, 2010, p. 91), a new media derivative of taxonomy, where internet users collectively used free association to create, organize, and rate internet resources (Educause, 2005; Sinclair & Cardew-Hall, 2008). These keywords often appeared on web

pages as tag clouds, providing students with visual clues as to the content of each resource. Research into the usefulness of social bookmarks, folksonomy, and tag clouds demonstrated that users found it easier to conduct searches because of the provided keywords (Sinclair & Cardew-Hall, 2008). Richardson (2010) saw the transition from ordered taxonomies to democratic folksonomies as a "new construct" where the skill of how to find information trumps who owns the information (p. 91).

Web 2.0 bridged the physical classroom with the digital classroom through active participation and collaboration. In his English classes, Kitsis (2010) used Blogger for classroom literature circles, and found that students who rarely turned in homework assignments would participate in online social media discussions because the built-in engagement and collaboration. I have used a class wiki for online discussions in my current events class at Bell High School for three semesters. I felt the online discussions made the large class, up to forty students, seem smaller, and allowed for all voices and opinions to be heard. Kist (2009) challenged educators to re-think our approach to collaborative learning, especially when it comes to writing:

> While in schools we most often still assign writing to be done individually, outside school writing often is done in a collaborative environment such as Google Docs or Wikispaces. Texts are shaped collaboratively, drafted by more than one person, then revised and edited by others—sometimes by hundreds or thousands more people. Wikipedia.org is an example of this; thousands of people, across the world actively participate in suggesting and then writing the entries that are never completely finalized. We need to give students practice in working collaboratively to produce these kinds of text. (Kist, 2009, p. 36)

Often educators have seen this type of collaboration as cheating, but Kist (2009) asked us to reconsider what working together looks like inside and outside the digital classroom. Web 2.0 promotes the idea of collective intelligence, or the group pooling, processing, and production of knowledge (Jenkins, 2009; O'Reilly, 2005). Jenkins (2009) called collective intelligence a necessary skill for the 21st century learner and worker, and educators should work to develop this ability within their curriculum. The participation and collaboration supported by Web 2.0 tools redefined the roles that teachers and student play in the classroom (Prensky, 2010). Teachers and students became partners in teaching and learning, but Prensky (2010) warned us that these roles are not equal. The student bore the responsibility for self-motivated learning and seeking out appropriate resources, while the teacher plotted the course direction and provided context for learning (Prensky, 2010).

Image and video sharing websites were also essential pieces of an educators Web 2.0 tool box. Using YouTube as both a teaching and assessment tool, Trier (2007) embraced what he called a "mosh-pit pedagogy"—a space for "spontaneous, performative act[s]" that encourages students to posts visual reading and discussion responses on the website ("Introducing YouTube," para. 4). Video and image sharing sites bridged the gap between the classroom and digital space by allowing students to engage with pertinent texts and course ideas whenever and wherever they wish. This "time shifting" and "space shifting" extended learning and the teacher-student relationship beyond the physical classroom (Trier, 2007, "Cool hunting," para. 5).

Jenkins (2009) grouped YouTube and other media sharing sites into a growing youth movement called participatory culture. Participatory culture supported "artistic

expression and civic engagement" (p. 3), encouraged members to create and share work, and to seek out membership or connections with others in social spaces (Jenkins, 2009). These social spaces helped students and teachers build and maintain relationships inside and outside the classroom using established communications media. The active participation, collaboration, and reflection encouraged by Web 2.0 supported student engagement and demonstrated great possibilities for strengthening teacher-student relationships within digital spaces.

*Social Media Networks*

Research showed that around 73% of American teenagers used social networking sites, and school was a regular topic of their blogs and online posts (Lenhart, Purcell, Smith, & Zickuhr, 2010; Richardson, 2008). While students used social media to talk about the events of school, educators were a bit more wary of taking school into the realm of social media. O'Hanlon (2007) found teacher-supporters of social networking websites liked the instant feedback, learning opportunities, and online collaboration it provides for parents, teachers, and students. Since social media networks were part of the Web 2.0 family, the benefits and risks should be closely related. In my search for literature I could not find any empirical studies done with popular social networking sites, such as Facebook and Twitter, which focused on using social media as a learning space. The limited literature I found revolved around best practice advice on the educational uses of social media inside and outside the classroom. The following brief review of these findings offer ideas on how to effectively bridge the digital space of social media with the learning space of the physical classroom.

Bringing education experiences into the digital world allowed teachers and students to connect and learn how to "leverage" social media sites for learning purposes (Richardson, 2010, p. 133). The few teachers leading the charge for educational social networks used the popular internet platforms Facebook and Twitter to connect with students. Richardson (2010) reported that teachers were using closed or private Facebook groups for online class discussions, sharing class appropriate links, photos, and video, and collaborating with peers. Ferriter (2010) and Miller (2010) both recommend Twitter as an educational resource for teachers because it allowed you to interact with other like-minded professionals and content experts to include in your Personal Learning Network (a concept I will discuss later).

While teachers may have used Twitter for personal and professional reasons, they should also encourage their students to do the same by following opinion leaders in the fields that interest them. Richardson (2010) recommended students use Twitter "to build learning-on-demand environments," places where they can seek out knowledge and others' opinions. Educause (2007) believed Twitter promoted social interaction and metacognition, "the practice of thinking about and reflecting on your learning" (p. 2). Twitter displayed multiple thoughts and opinions on the same page and compelled students "to be brief and to the point—an important skill in thinking clearly and communicating effectively" since posts can only contain 140 characters (Educause, 2007, p. 2).

Similar to Twitter, the microblogging site Edmodo also let teachers set up private social networking communities and send instant or text messages within the closed groups. Teachers could attach computer files and calendar due dates to messages helping

students with organization and course assignments (Dawson, 2009). Since Twitter and Edmodo were essentially scaled down versions of blogs, many of the same benefits apply. The popularity of Twitter, with over 200 million users worldwide, made it accessible to teens, who were common social media users (Horn, 201; Vuong, 2011). Social media networks created new connections for teachers, students, and parents and make learning more relaxed and enjoyable.

Using the social media site Facebook tended to be more controversial within education. Carter, Foulger, and Ewbank (2008) and Richardson (2010) found high school teachers using Facebook to extend their classroom beyond the physical space of school by creating online learning communities or by maintaining the teacher-student relationship within digital spaces. Like Twitter and other social media networks, Facebook allowed teachers to create private or closed groups where students could interact with course material. Teachers that spoke with Richardson (2010) used Facebook groups to post course content, such as syllabi, useful web links, and discussion prompts. Students used the Facebook "wall" to share course relevant comments, photos, and videos they found, and apparently enjoyed the social media interaction enough to ask their teacher to leave the Facebook group intact when the course ended. Carter, Foulger, and Ewbank (2008) interviewed a high school teacher who credited Facebook with strengthening her connections with students, saying the social media site "allows her to establish deeper relationships with and understandings with her students because she can communicate with them beyond the four walls of the classroom" ("Professional life," para. 2). It was these relationships beyond the classroom that concerned some teachers, parents, students, school administrators, and social media critics. The National Education

Association and many other education groups warned against teachers and students interacting on social media sites. Some teachers avoided using Facebook and Twitter altogether for fear of students encroaching on their personal lives. I will discuss the ideas of privacy and professionalism later as it relates to the social responsibilities of teachers using social media networks.

Schools still played an important role in the socialization of our youth, but media, especially social media, now competes with school for influential social power. Facebook and other social networks play an increasingly important role in the social lives of our students as they are now able to connect with people all around the world who would normally be outside their sphere of influence. Richardson (2010) found that youth use social media networks for maintaining their friendships, often seeking out others with similar interests. With these interest-based relationships, young people took on the role of both teacher and learner, sharing their knowledge with and listening to strangers. The psychosocial development theories of Erikson (1968) reminded us that during the teenage years, young people tended to rely on peers within their social circles, often taking their advice above those of parents, teachers, or other adults. Realizing that the internet and social media have expanded teens' social circles, parents and educators should play a more active role in the digital lives of their youth (Kist, 2009; Richardson, 2010).

McIntosh (2009) credited social networking with "helping learners become more world-aware, more communicative" while learning collaboration and networking skills (p. 78). Richardson (2010) saw the benefits of using social networks to personalize and contextualize learning, and meeting students in digital spaces gave teachers the ability to "teach students all sorts of important lessons about digital citizenship, safety, information

literacy, and more" (p. 133). Both Tapscott (2009) and Prensky (2010) found that today's youth wanted personalization or customization of their learning experiences. Teaching with social networking and media literacy skills equipped students to live in our new media age.

## Digital Teacher-Student Relationships

The value of social media networks rested in its ability to make educational connections available for students outside the normal business hours and the closed walls of the school building. Research studies showed that both teachers and students learned and gained new perspectives when technology was used to foster teacher-student relationships. Using digital media to support personal communication between teachers and students made even the largest classroom seem smaller, and could strengthen teacher-student relationships negatively affected by large school and class sizes (Van Maele & Van Houtte, 2011). Crosnoe, Johnson and Elder (2004) argued that schools that provided community building, collaborative working environments, and academic support strengthened both the teacher-student relationship and students' academic success. In a qualitative study of geographically isolated secondary students, Doherty and Mayer (2003) used email to connect teachers and students over long distances. Their study revealed how students' and teachers' email conversations slowly developed from "normative classroom oral discourse" to warm, humorous, yet helpful conversations that supported peer-to-peer and teacher-student relationships (para. 6). Doherty & Mayer (2003) felt "that incidental e-mail communication between teacher and student provides a new space--new in scope, location, time, mode, and interactional protocol--in which to

explore and build this core relationship" (para. 6). It this case, digital communication helped build a bond between the groups even though they were hundreds of miles apart.

Carr (2007) advocated blogging as a way to build and maintain relationships between teachers and students, as well as parents and community members. Sarsar (2008) integrated technology and multiliteracies into her curriculum by developing a class website to act as both a resource and an online space for dialogue with students. Students used the discussion board to interact with each other and with the teachers. She found that the website connected students' lives outside of school with lessons learned within the classroom. Martin (2006) learned to instant message (IM) in order to better communicate with her college students and admitted the relationships and conversations were "too productive to give up" (p. 26). DeGennaro (2008) also confirmed the positive effects instant messaging had on teacher-student relationships because of its simple use as a communications tool. Instant messaging provided a shared digital space where teachers and students met, discussed, and worked together to solve problems (DeGennaro, 2008). Students and teachers participated in a study on e-journaling agreed that the online collaboration provided increased learning and better teacher-student relationships (King & LaRocco, 2006). In a large study involving 35 secondary classrooms, Schofield and Davidson (2003) found that internet usage caused students to take more responsibility for their learning, relying on their own problem solving skills. Teachers considered this a major step for the students and both groups reported having "warmer and less adversarial" relationships when interacting with internet media (p. 72). Technology supported the learning of both students and teachers by aiding dialogue, two-way communication, and understanding.

## Classroom and Digital Community

Using digital technology, especially Web 2.0 tools, improved communication and peer support inside and outside the classroom. This intersection of digital space and the physical space of school highlighted the positive aspects of digital learning communities. Much of what we know about digital classroom communities came from studies of web-based college courses. Studies of online courses found that interaction was essential to creating community (Chang & Smith, 2008; Waltonen-Moore, Stuart, Newton, Oswald & Varonis, 2006). In courses where students were not required to discuss or interact, students reported low levels of satisfaction or appreciation with the class (Chang & Smith, 2008). When online learners interacted, sharing their knowledge with questions and discussions, instructors saw increased critical thinking and course engagement (Chang & Smith, 2008; Waltonen-Moore et al., 2006). Trying to identify how community formed in online courses, Waltonen-Moore et al. (2006) compared the importance of online interaction with Vygotsky's theories related to how and why children develop of social speech. In his work *Thought and Language*, Vygotsky (1986) described a child's first stage of language as social—the attempts to verbally engage in "social contact" with others (p. 34). Through conversing with others and themselves, the child eventually transitioned to inner speech, an important part of critical thinking (Vygotsky, 1986). Waltonen-Moore et. al. (2006) observed these same transitions in online education discussions. Students moved from social banter and simple explanations to higher level thinking through in-depth questioning and finally into leading online discussions. Overall, the research showed "a learning environment that promoted student-instructor,

student-content, and student-student personal interactions" was crucial to learning in digital spaces (Chang and Smith, 2008, "Interaction,"para.5).

Secondary teachers could mimic these same kinds of exchanges using classroom blogs, wikis, or discussion boards. Teachers may also use the popular social media networks Facebook and Twitter to set up groups, effectively creating a closed social network within the wider media where only classroom members can interact. By using established social networks that the students already use, teacher would avoid the learning curve that comes with most new technology. In quantitative empirical research studies both Levin (2005) and Henderson and Honan (2008) found that students in the computer-mediated classrooms used peer support and communication to answer questions on assignments and technical issues, and the students' collaboration helped build classroom community. The interaction and collaboration in within the digital space and physical space of the classroom strengthened classroom community. Often teachers would model the different digital tools being used, but relied on students' knowledge of computer programs, internet sites, and digital tools (Henderson & Honan, 2008). Students felt like experts and became technology resources for their peers. This increased collaboration within the classroom. Prensky (2010) advised letting students give suggestions on ways to use different digital media for class activities or projects. Letting students talk through the strengths and weaknesses of different applications got them thinking about how the media worked and improved their grasps of media literacy concepts.

Sánchez (2007) described classroom community as a space where teachers and students learned through speaking, listening, and often disagreeing with each other. This

safe place was development over time and should transition from the physical classroom to cyberspace. Light (2011) used blogs and wikis to create community inside and outside the classroom. Blogs and online journals prompted self-reflection and created a space for all students' voices to be heard (Light, 2011). When students used blogs to publish their work, Kitsis (2008) found they put more effort into their writing simply because it would be on display for their peers. He also found this relieved some of his grading responsibilities when he allowed students' comments and opinions to play a role in the grade. Within these online social spaces teachers should teach or model proper online behavior, so students knew what types of exchanges are acceptable and felt safe expressing their feelings and opinions. In the socially-networked classroom, teachers and students bounced ideas off each other and used their reflections to improve their teaching-learning relationships (Richardson, 2010).

## Social Responsibility

In reaction to incidents of bad behaviors or the fear of inappropriate relationships between teachers and students, some school districts and educational groups have banned teachers from interacting with students through online social media networks (Ewbank, Foulger, & Carter, 2010; Schworm, 2010). For Web 2.0 tools to be used effectively and not be abused by either party, teachers must carefully consider their goals for using these tools, establish professional ground rules, and also teach students to do the same.

Social media continues to change the way we communicate and could change education for the better, but research by Ewbank, Foulger, and Carter (2010) found that teachers tended to use social media for "personal communication" rather than embracing the technology for professional use. One barrier for many teachers was the desire to keep

their "personal and teaching lives separate" (Alexander, 2011, p. 1), and having students within their personal social media circle was seen as an invasion of privacy. While I could not argue with the concept of leaving your work at your workplace, as educators we live fairly public lives. Like politicians, we perform a public service and our actions or words could lead to public cries of outrage. In this social media age, our online words on blogs or social network pages could also incite the public against us. This was clearly seen with a 2010 incident involving a Boston educator who was forced to resign after parents saw her Facebook posts calling students "germ bags" and area parents "arrogant" snobs (Heussner & Fahmy, 2010, para. 3). This and many other incidents illustrated the importance of exercising professionalism and social responsibility in our digital lives. Teachers should act ethically inside and outside the classroom and teach our students to do the same by modeling good online behaviors (Fingal, 2009; Kist, 2009).

*Professionalism*

Patterson and Wilkins (2011) argued that the competing loyalties between professional and personal roles often complicate our relationships and cause educators to question our responsibilities to others. Educators, like journalists and politicians, must remember their responsibilities to humanity, to their honorable profession, and to the people they serve (Carter, Foulger, & Ewbank, 2008). The National Education Association's (NEA) code of ethics reminded us of our professional standards by stating,

> The educator recognizes the magnitude of the responsibility inherent in the teaching process. The desire for the respect and confidence of one's colleagues, of students, of parents, and of the members of the community provides the incentive

> to attain and maintain the highest possible degree of ethical conduct. (NEA, 1975, "Preamble," para. 3)

One cannot maintain the "respect and confidence" of parents and community leaders while ranting against students, parents, and school leaders on public, online forums (NEA, 1975, "Preamble," para. 3). While our personal opinions about students, parents, or school policies may warrant a public forum, education professionals must temper opinions and make sure that we do not violate professional ethics. Teachers must watch their reactions to students' comments online, even when they are directed at the teacher. Often, teachers must both address the source of student's frustration and the consequences of the student's online behavior without taking offense at its spiteful nature (Ackley, 2003). Refraining from personal, scandalous comments is all a part of teacher professionalism and the ethics of loyalty.

Teachers should uphold these professional ethics inside and outside the classroom, as well as online. Teachers' personal and professional lives were on display as role models or mentors for students, parents, and community members and they are responsible for modeling ethical behavior for these groups (Bugeja, 2008). While Facebook and Twitter allowed users to set some levels of privacy, it was always wiser to assume that everything written online is open and available to all. Philip and Wilkinson (2011) noted that many forms of new media "default to openness rather than privacy" leaving users with the responsibility to protect themselves. While teachers yearned to keep their personal lives private and separate from their professional lives, the new media environment frequently prevented it.

Another fear for parents and teachers was inappropriate or sexual relationships between teachers and students. Carter, Foulger, and Ewbank (2008) and Chiaramonte and Gonen (2010) described many such cases ripped from news headlines. In these cases, the teachers clearly crossed the line, violated the educator's code of ethics, as well as the law. The NEA code of ethics stated that teachers "Shall not use professional relationships with students for private advantage" (1975, "Principal I," para. 9) and to never bring physical harm to students. Maintaining professionalism and adhering to ethical behavior inside and outside the classroom easily prevented this from happening. Teachers must bear the responsibility for maintaining professional on their own, as it is our duty, along with parents, clerics, and other community leaders to model ethical behavior for students.

*Privacy*

In their research of pre-service teachers and their social networking pages, Carter, Foulger, and Ewbank (2008) commonly found images and comments related to drugs, alcohol, and sexual activity. One of the biggest assumptions was that things posted online are private, especially if they are meant for a closed, private audience (Carter, Foulger, & Ewbank, 2008). Students were also concerned over their private lives being invaded by parents and teachers, but at the same time they would lay their lives open for total strangers. Fodeman and Monroe (2009) warned that students and teachers alike must learn "*NOTHING IS PRIVATE* online, especially their social networks" (emphasis in the original) (p. 1).

This has been a difficult lesson for many teachers across the country that have been suspended or lost their jobs because of social media posts. The right to or need for privacy enables people to protect themselves from unwanted attention or access to their

lives. “Online social networking has created a cultural shift related to the idea of privacy,” Ewbank, Dutton, Foulger, and Carter (2010) found, “some people today are willing to expose more about themselves” (p. 681). In the age of social media, the idea of privacy became more blurred because people revealed so much more about themselves online than they would normally do with individuals face-to-face. While true online privacy may not possible, it was important for education professionals to use taste, discretion, and restraint with using social media even when you feel it interfered with their right to “free expression” (Bujega, 2008, p. 262). Exercising taste over free expression meant taking into account’s the educators’ code of ethics and personal values system to make the best decision as to what is appropriate to share with an online audience, even when these online messages fall into the unintended hands. Again, since teachers were role models and community leaders, their private and public lives often intersect.

Since teachers were often discouraged from interacting with students online and many parents failed to monitor their teenagers’ online lives, youth had no education or guidance when entering the online world (Fingal, 2009). Banning digital teacher-student relationships assumed that both teachers and students are incapable of ethical behavior. Instead of banning technology, educators should turn their attention towards modeling proper online behavior for students. “It makes no sense to teach kids to be safe online by preventing them from being online,” one teacher explained, “This would be like trying to teach someone to swim on dry land” (Kist, 2009, p. 99). Students needed an education on the meaning of online privacy, including advice on what is and is not suitable to post online. Reading comments on the blog war between factions defending and denying

befriending students online, Sharon Walters posted a profound statement: "When it comes to social networking sites, such as Facebook, I wonder how students are going to learn responsible use without engaged adults providing feedback and advice" (Fingal, 2009, p. 39). Ackley (2003) encouraged teachers to model good behavior with email, instant messages, and social media posts. When student exhibited bad behavior online, especially with comments targeted at teachers, teachers should not react with malicious comments of their own. While teachers may have the legal right to respond, but this did not mean they had the "practical right" to do so (Ramasastry, 2009, p. 94). Parents and teachers should step up and fulfill the role of responsible adults ready to teach students the promises and pitfalls of social media.

In a recent Facebook post, a student posted a picture of a hermit crab in a toilet with the caption "Goodbye Nowell." Confused and a little offended, I debated whether to respond, and decided to simply ask "Where I was going?" Two students responded by explaining the recent demise of the beloved pet whom they had named after me (as a sign of affection, I hope). This silly situation illustrated students' fondness for social media, the power of the teacher-student relationship, and our responsibility to teach students to proper online behaviors. I could have taken the incident as a threat or an attempt to undermine my authority, but for these two teenage girls, this innocent post was an expression of sadness (and silliness). As educators, we must accept our roles as role models inside and outside the classroom.

## Digital Divides

Soon after the first research on digital media in the classroom and the influence of technology on our students appeared, concerned educators began to question the

academic gap between students who had access to computers and those who did not (Goodson et al., 2002). Educators began calling this phenomenon the digital divide, but current research on this divide revealed a more complex fissure in our education and social systems that extend beyond access. As we look into students' and teachers' digital lives, we should take social, cultural, economic, and generational differences into consideration.

*Socioeconomics and Critical Literacy*

The digital divide is inextricably tied to "previous 'gaps' between classes, genders, and generations" (Goodson et al., 2002, p. 3). Current discussions evolved to include concerns over the types of access students enjoyed: broadband versus dial-up, home computer versus mobile phone, availability in urban versus rural schools (Fox & Livingston, 2007; Henderson & Honan, 2008; Prieger & Hu, 2008). Fox and Livingston (2007) found that internet use varied among ethnic groups, showing low usage with those who did not complete high school and with Hispanics possessing low English proficiency. Hispanics were one of the groups lacking access to the internet, with less than 50 percent having home internet access, but they were among the first groups to adopt mobile phones as an internet device (Fox & Livingston, 2007; Gahran, 2011). In their study, Fox and Livingston (2007) explored the cultural divisions within the Hispanic ethnic group, finding differences in American versus foreign born internet users, users from varied Latin American nations, and the availability of broadband internet access to these different groups.

The next obstruction in closing the digital divides seemed to be the availability of broadband internet. Broadband internet access allowed users to browse the web at faster

speeds and to upload and download data, such as videos or photos. Teachers wishing to establish digital learning spaces where students could interact with course material at home were concerned that their students may not have internet access at home or their available internet service (on mobile phones or dial-up access) may not be able to handle many Web 2.0 projects. I have dealt with this problem when assigning students digital projects. Students complained that when they tried to add photos or videos at home, it crashed their computer. Prieger and Hu (2008) described the broadband digital divide affecting the United States as "electronic redlining," a process where telecommunications companies ignored minority communities by failing to offer broadband internet access (p. 153). In their study, Prieger and Hu (2008) found that race/ethnicity was a better predictor of internet access than socioeconomic status (SES) or education level. They also found that minority groups used the internet differently, desiring entertainment more than information (Prieger & Hu, 2008). Just as reading literacy was supported or neglected in the home, digital literacy also starts at home. Critical literacy forced us to consider knowledge gaps minority students may have when it comes to teaching internet research skills, Web 2.0 tools, and social networking (Henderson & Honan, 2008).

While more African American and Hispanics used mobile phones to access the internet, researchers found that mobile internet access was not equal to home computer broadband access. "It's tough to fill out a job application on a cellphone," Washington (2011) explained, making the point that this inequity may affect students beyond school and homework. Internet access could determine their ability to get a good job and rise in socioeconomic status. Not only may internet access be necessary to obtain a good career,

it was also a perk at most good jobs since researchers have found that many Americans with internet access at work used it less at home or used it differently.

As researchers explored how different ethnic or socioeconomic groups used the internet, educators should take a critical look at the ways they expected students to use digital learning tools inside and outside the classroom. This was a continual challenge at Bell High School as many of our students came from lower socioeconomic and diverse ethnic backgrounds. Doherty and Mayer (2003) concluded the "educational disadvantage" related to the digital divide may stem from a number of factors including: socioeconomic status, political or cultural marginalization, transiency, and "institutionalized racism" (para. 2). Teachers must take on the task of teaching students how to effectively use many of the digital tools available in this age of social media as the complexities of the digital divide and how these divisions link to social inequities in job opportunities, income level, and participation in the democratic process.

In his book *Convergence Culture*, Jenkins (2008) called the digital divide a "participation gap," and recognized that lower socioeconomic groups often lived outside current trends of new media. Jenkins (2009) defined the participation gap as "the unequal access to the opportunities, experiences, skills, and knowledge that will prepare youths for full participation in the world of tomorrow" (p. 3). Social media, Web 2.0, and "participatory culture [are] irrelevant to those looking for their next meal," Jenkins (2008), frankly stated (p. 258). Lack of participation in new media culture affected the digital literacy of students with lower SES. The importance of Web 2.0 and social media to American democracy has been increasingly important in the last two presidential elections. Candidates, especially Barak Obama, worked hard to capture the hearts and

minds of young Americans by waging fierce online campaigns hinged on social media and participatory culture (Tapscott, 2009). Those who teach in schools serving low SES students may be unaware of the lack of access their students have to digital technology, unintentionally ignoring their critical digital literacy needs (Henderson & Honan, 2008). These socioeconomic and cultural differences only highlighted the reasons why media literacy education and learning in digital spaces were necessary for today's student.

*Generational Differences*

In 2001, Prensky introduced the world to the generation gaps between "digital native" students and their "digital immigrant" teachers (p. 1). In this early call to arms to save the "Net Generation" (Tapscott, 2009, p. 16), Prensky (2001) encouraged teachers to change their teaching methods and curriculum content to better engage digital natives. This push promoted the growth of technology in schools and a louder call for media literacy education. More recently Prensky (2010) called for educators to partner with digital natives, using content knowledge, technology, and interactive pedagogy to guide students toward critical thinking, questioning, reading, and research. With technology moving so quickly and new Web 2.0 tools arriving daily, even the young teachers, who are members of the Net Generation, could be overwhelmed with "the plethora of new communication tools that are available and how to make best use of them in the classroom" (Kist, 2009, p. 6). As a member of the Net Generation myself—those born in the United States between 1977 and 1997—I struggled with balancing old methods of teaching with new technology and how to equip my students with 21st century skills. Prensky (2010) and Tapscott (2009) encouraged educators, new and experienced, to

consider the educational expectations of the 21st century learners and to acknowledge the fundamental changes taking place in our society.

First, Tapscott (2009) believed members of the Net Generation may be wired differently. "They're quicker, for example, to process fast-moving images" possibly because of the early, and sometimes constant, exposure to television and computer games, Tapscott (2009, p. 39) wrote. His research argued several beliefs that this generation may: (1) be smarter than previous generations, indicated with higher IQ scores; (2) value family over career; (3) be more inclusive and tolerant of differences; (4) tend to desire entertainment alongside their work, education, and play; (5) prize interaction and collaborative undertakings; and (6) use technology in nearly every area of their daily lives. Prensky (2010) found similar traits in digital natives, but he focused on how these translate to the classroom.

Current classroom curriculum should reflect these generational differences, but most of our schools look much the same as they did fifty years ago. In his research, Prensky (2010) found that young people wanted respect, personalization, freedom, control, and relevance in their educational experiences. The following quote summed up their expectations:

> They want ways of learning that are meaningful to them, ways that make them see—immediately—that the time they are spending on their formal education is valuable, and ways that make good use of the technology they know is their birthright. (Prensky, 2010, p. 3)

Kist (2009), Prensky (2010), and Tapscott (2009) proposed a shift in pedagogy that embraced collaboration, relevance, technology and student-centered teaching at its core.

Tapscott (2009) noted that today's learner wanted a "one-size-fits-one" education where they choose the what, where, when, and how of their learning experiences (p. 139). Teaching that included Web 2.0 tools, social media, effective uses of digital learning, and media literacy equipped students to thrive in our new media-saturated, socially networked world.

## Theoretical Framework

This qualitative teacher research study explored the meanings teachers and students attached to digital media and the ways they used these technologies to connect inside and outside the classroom. Through the literature I have demonstrated the problems and possibilities that digital learning, Web 2.0, and social media had on the teacher-student relationship, the development on classroom community, and the digital divide. The theories of Media Literacy, Media Uses and Gratifications, and Communities of Practice form the underlying structure of this study.

### *Media Literacy*

Media Literacy describes an educational movement focused on equipping students with the necessary skills to "access, analyze, evaluate, and create" all types of media (Thoman & Jolls, 2005, p. 190). Schwarz (2005) traced the beginnings of the American media literacy movement to the 1950s when educators began to question to what influences mass media held over young people. Today the study of media literacy has branched into many interconnected sub-headings—digital literacy, multiliteracies, or new literacy studies—all asking the same question in different ways. Kist (2009) argued, "Whatever we call new ways of communication (new literacies, multiliteracies, ICT, media literacy, digital literacies, or multimodalities, to name a few terms being used

currently), it's clear that we are experiencing a vast transformation of the way we 'read' and 'write,' and a broadening of the way we conceptualize 'literacy'" (p. 2).

Literacy, or understanding the language and practices of each group, determined your ability to participate within that culture or community (Gee, 2010). In this way, media literacy was a form of "cultural understanding" (Buckingham, 2010). Literacy has always been the focus for Gee (2010), who saw these new investigations into media literacy as explorations of the "social and cultural practices" of different discourses (p. 20). Negotiating new media (Web 2.0, social media) required new media literacies skills which included: editing or revising information found online; determining if online information was valid and credible; publishing with varied multimedia tools; researching and storing information online; and effectively collaborating with others (Richardson, 2010, p. 149). According to Henderson and Honen (2008), these "digital literacies and the use of digital technologies are a necessary part of school learning" as they prepare students for our current new media culture and our increasingly socially networked society (p. 86).

Jenkins (2009) called on schools to teach students the skills necessary to live in a "networked society" (p. 51). Using social media networks in the classroom could help students learn to acquire and distribute information, as well as the social skills to determine "when to trust and when not to trust others" with sensitive information (Jenkins, 2009, p. 51). Richardson (2010) charged educators to equip students with the skills to build and maintain "networked personal learning spaces" to use throughout their lives (Richardson, 2010, p. 149). These networks could be groups of people, places, or

resources within real world or online communities. To teach these new literacies, teachers must first become media literate themselves (Rogow, 2004).

Richardson (2010) called teachers "connectors" bridging the gap for students to content and the world (p. 154). As a connector, I must adapt my 20th century curriculum to the 21st century learner. To do this I have integrated media literacy into my pedagogy. The classical definition of pedagogy was how we teach what we teach, our instructional methods, and our beliefs about our students' learning capabilities. But pedagogy also includes one's moral and ethical views and decisions, one's desire to shape the ethics and morals of students, how one engaged students, and one's relationships with students. With media literacy at the center of my pedagogy, I am continually challenged to use new media and technology to both engage and equip my students with 21st century learning skills. This created an interactive, collaborative learner-centered curriculum that extends beyond the classroom into the homes, the lives, and digital lives of my students. Integrating media and popular culture into classroom curriculum promoted teacher-student interaction and engagement (Mihailidis & Heibert, 2006; Thoman & Jolls, 2004). My understanding of media, through my years of media education and my teaching practice, fueled my students' understanding and I acted as a facilitator or guide along their journey towards becoming active, media literate citizens in our democracy and participatory culture.

Teachers' acceptance of computers and digital media hinged on their teaching pedagogy and their level of comfort with student-led versus teacher-led classroom activities (Goodson, et al., 2002). But Rogow (2004) warned that teachers needed time and training to effectively integrate new media literacies into their pedagogy and

curriculum. Media literacy skills, along with Web 2.0 skills, taught students to use their knowledge and voices for the good of society, and to become active, not passive, citizens and consumers of media (Jenkins, 2009; Richardson, 2010). Mihailidis and Heibert (2006) stated media literacy equipped students with the skills to "critically and analytically engage with media" (p. 198). These skills developed within the physical space of the classroom through classroom community, open dialogue, and collaborative learning, were essential to life outside the classroom, especially in the domain of cyberspace (Mihailidis & Heibert, 2006). Media literacy promoted student engagement because it encouraged students to constructively question within the safety and community of a learner-centered classroom. It also empowered the learner to make decisions about the media's role in their life (Thoman & Jolls, 2004). Mihailidis and Heibert (2006) saw the learner-centered pedagogy of media literacy creating empowered citizens capable of active and reflective thoughts about media inside and outside the classroom. Student engagement with curriculum and learning improved because students enjoyed their freedom to express their learning using multimedia (Kist, 2009).

While teachers often felt intimidated by the speed and confidence students showed when working with computers, we should not mistake this familiarity with the technology as literacy (Henderson & Honan, 2008). In our new media culture, students were engaged in conversations with friends and strangers online "without ever leaving home" (Kist, 2009, p. 4). This frightened teachers and parents, but the responsibility of teaching social media ethics and media literacy falls on our shoulders. We must teach students that online harassment and intentional slanders are illegal and inappropriate inside and outside the classroom despite their First Amendment rights (Ramasastry,

2009). As Kist (2009) pointed out, students have been passing "naughty notes" for centuries and digital media just provided a new space for note passing (p. 99). The best way to teach media literacy and online ethical behavior was to show our students how to behave in digital spaces. Teachers, students, and parents should develop online relationships in order to model proper online relationships (Fingal, 2009).

*Media Uses and Gratifications*

The theory of media uses and gratifications was first proposed by Elihu Katz in 1959 as he challenged the media researchers of the day to consider "what people do with media" (Dunne, Lawlor, & Rowley, 2010). As in media literacy, uses and gratifications assumed that media users were active participants, who chose different media in order to complete particular tasks or because they received certain benefits (Severin & Tankard, 2001). It was also understood that media use was just one way of meeting a person's needs, and that "the media compete with other sources of need satisfactions" (Katz, Blumler, & Gurevitch, 1974, p. 511). The satisfaction or gratification a person received from the media came from the experience with the media , the media's content, and "social situation" in which the media where the experience took place or that it exemplified (p. 514). In today's media climate, this could be seen as the satisfaction social media users experienced by simply being a member of an online social network, the enjoyment gained by viewing their friends' online photos and comments, or gratification of one's social needs through interacting or conversing with others online.

Other than social needs, Katz, Gurevtich, and Haas (1973) suggested that we used media to fulfill a variety of psychological needs including:

1. Needs related to strengthening information, knowledge, and understanding—these can be called cognitive needs;
2. Needs related to strengthening aesthetic, pleasurable and emotional experience—or affective needs;
3. Needs related to strengthening credibility, confidence, stability, and status—these combine both cognitive and affective elements and can be labeled integrative needs;
4. Needs related to strengthening contact with family, friends, and the world. These can also be seen as performing an integrative function;
5. Needs related to escape or tension-release which we define in terms of the weakening of contact with self and one's social roles. (p. 166-167)

Current research into media uses and gratifications theory attempts to understand how media users deal with their abundant, often overwhelming choices of media, and how these choices compete for our attention. Social media networks, mobile phones, and other new media have been the subject of recent uses and gratifications uses studies.

*Communities of Practice*

Developed by Jean Lave and Etienne Wenger, the communities of practice theory involved how people organize and form informal learning groups around questions, activities, or causes. According to Wenger (2006), communities of practice were not new, but we were learning to utilize them to increase productivity in organizations, workplaces, and online. Many definitions for communities of practice existed, but I preferred this one: "Communities of practice are groups of people who share a concern of a passion for something they do and learn how to do it better as they interact regularly"

(Wenger, 2006, "What are communities of practice," para. 2). Not all groups and gatherings are designated as communities of practice. True communities of practice must have three things. First, community members had "an identity defined by a shared domain of interest"—some practice or experience that acted as an I.D. badge to recognize others who may belong to the group (Wegner, 2006, "What are communities of practice," para. 4). Secondly, group members created a community by sharing their expertise, building relationships, interacting, and helping one another. Last, they practiced—working together towards a common goals, sharing resources, and producing fruits of their work (Wenger, 2006). Often communities of practice formed by accident, but their work must be intentional; clear goals and leadership strengthen these communities (Wenger, 2006).

Strangely, most schools were not communities of practice, although they should be. Wenger (2001) found that schools had been slow in accepting communities of practice as an organizational model. Traditional pedagogy supported the "banking concept" of education where teachers fill students with content knowledge (Freire, 2000, p. 72). This top-down hierarchical approach opposed the "side-by-side and peer-to-peer" structure found in communities of practice (Cross, 2007, p. 153). Communities of practice went well alongside 21st century pedagogy and media literacy education because it supported learner-centered experiences and classroom community.

Mihailidis and Heibert (2006) supported Wenger's communities of practice as a model for new media literacy because it promoted learner-centered environments where community members actively shared educational experiences. DeGennaro (2008) agreed, stating, "Communities of practices are an inherent part of social learning" as they

exhibited new ways students created and shared their knowledge (p. 2). Gregory (2009) demonstrated how teachers learning to use their Smartboards formed communities of practice, meeting to share their experiences and lessons with the new classroom technology. Wenger (2001) suggested that schools use communities of practice to move education outside the physical school building. Forming communities of practice in digital learning spaces could support teaching and learning within the classroom, as well as teach both students and teachers to establish online learning networks throughout their lifetime. Educators can use the communities of practice concept within classroom with group or collaborative work, with Web 2.0 or social media in online digital learning spaces, and by establishing their own "personal learning networks" in their professional lives (Miller, 2010, p. 14).

*Personal Learning Networks*

Research suggested that teachers and students create their own "personal learning networks" (Miller, 2010, p. 14) to get the most effective educational experience out of new media (Ferriter, 2010; Kist, 2009; Richardson, 2010). Ewbank, Foulger, and Carter (2010) found that teachers tended to use social media for personal use instead of embracing the technology for professional use. Social media networks allowed teachers to form both professional networks with other teachers and thinkers in their content area and classroom networks that strengthened classroom community and teacher-student relationships. Ferriter (2010) recommended the social media microblogging site Twitter because it gave educators the ability to "share resources" and support with colleagues (p. 73). Socially-networked teachers could seek out advice, easily learn from others' mistakes, and take steps to improve their teaching practice (McIntosh, 2009). Rather than

posting the mundane details of life, as many users did, Miller (2010) suggested a more strategic approach to Twitter posts with the "Twitter Engagement Formula" (p. 17). According to the formula:

> 70% of Twitter time should be spent sharing other voices, opinions, and tools; 20% of tweets should be directly responding, connecting, collaborating, and co-creating with Twitter colleagues; and 10% is chit-chatting trivial details about your life as a human being. (Miller, 2010, p. 17)

While it's a good idea to keep the mundane to a minimum, I do not believe sticking to the formula was necessary for getting the most out of Twitter.

Using social media to form personal learning networks was more about who you chose to be a part of your personal network. Finding friends, colleagues, community stakeholders, and students who shared your passion for education was key. Kist (2009) used his personal learning network to "ask questions and get answers, link to great blog posts or resources, or share ideas for projects as they go through the day" (p. 86). Richardson (2010) relied on his personal learning network for ideas and connecting with others' experiences in teaching and learning. In beginning this research project I started my own personal learning network on Twitter. I already followed many of my teaching colleagues from my local Writing Project site, but soon I became acquainted with other National Writing Project members. I also followed educational organizations, authors, and leading voices in education. I looked to members of my personal learning network to see what they were reading, what news headlines caught their attention, and for ongoing events and conferences. I also connected with my students on Twitter, turning to them for their opinions on classroom activities, their knowledge of technology, as well as what

was happening in their lives. As a socially networked teacher, I stayed informed with trending educational topics, collaborated with other teaching professionals, strengthened my relationships with students, and continually learning through my social media networks.

## Summary

This chapter delved into the existing literature related to teacher-student relationships, digital learning spaces, digital learning tools, community building, and the digital divide. It also outlined how the theories of media literacy and communities of practice formed a foundation for my qualitative teacher research study. As much of the existing literature relied on best practice advice instead of systematic research studies, my research study will add to the existing body of knowledge and provide a clearer picture of the ways students and teachers interact and learn using digital media.

# CHAPTER III

## METHODOLOGY

*On a steamy summer evening in June, Mackenzie Lane hosted a cookware party at her suburban one-story brick home. Her packed living room held her longtime friends, family members, and nearly a half dozen female teacher colleagues from Bell High School, including me. The evening's conversation over stone bakeware and appetizer recipes shifted to school sports, dealings with parents, and our overall summation of the past school year. I laughed at the scene, wondering if teachers ever stopped thinking about school. As the party wound down, Mackenzie surprised me with a comment.*

*"Shanedra, I've been thinking a lot about our conversation last fall," she said through furrowed brows. For a moment, I had to stop and think what in the world she was referring to. "Last fall?" I questioned in return.*

*"Yeah, remember when you interviewed me and we talked about teachers talking to students on Facebook," she said excitedly, "I think I'm going to start a Facebook page for my students, like you did."*

*I was dumbfounded—for a couple of reasons. First, Mackenzie was referring to the pilot study I had conducted for a graduate class nine months earlier, and I will admit I had forgotten most of what she said during our interview. A young teacher in her mid-twenties, Mackenzie taught English and served as a class sponsor at Bell High. The kids loved her and called her "The Cool Teacher."I chose to interview Ms. Lane because of this noticeable bond, since my study hinged on the teacher-student relationship. I also expected that her young age would favor more acceptance of technology inside and*

*outside the classroom. While Mackenzie loved using YouTube video clips and the Smartboard in class, she did not endorse students and teachers as friends on Facebook or other social media sites. Her well thought out philosophy against teacher-student social networking came from her desire to protect her reputation with students, parents, and peers; her desire for distance and propriety from passed youthful indiscretions—which still bore photographic evidence on the MySpace page she created in her college days; and the sometimes inappropriate comments left on her social networks by some of her 900 Facebook friends. Nine months ago Mackenzie was sure of her position on social media's place in school, so what had changed her mind? "It was my students," she commented as she explained to me how she pondered what a positive influence she could be on their lives, even online.*

*"Wow!" I said smiling, and jotted a mental note to include her longitudinal reflection in my work.*

## Overview

The purpose of this teacher research study was to explore the meanings that teachers and students associated with digital media and to understand teacher-student interactions within digital spaces in order to strengthen the relationship and communication between the two groups. As technology has accelerated in the current century, a generational technological gap widened and separated teachers' and students' digital lives (Buckingham, 2010; Prensky, 2010). This rift prompted the three research questions driving this study:

RQ1: How do secondary teachers and students make connections using digital online media?

RQ2: How do secondary teachers integrate digital technology into curriculum and pedagogy and for what purpose?

RQ3: What distinctions and commonalities do these digital teacher-student relationships hold?

By seeking answers to these research questions, I hoped to gain knowledge of how current digital technology affected teacher-student communications and add to the available literature on critical media literacy.

In the following pages I explain the design of this research study, the characteristics of both teacher research and narrative inquiry, and provide details of the research setting, participants, and data collection and analysis methods. The chapter concludes with a discussion the ethical dilemmas posed by the research and the limitations of the study.

## Research Design

Qualitative research grew out of anthropology and sociology and is finding a home in educational research (Merriam, 2002). The strengths of qualitative research lie in its understanding of socially constructed meanings and its acceptance of the multiple perceptions held by individuals, and it enables researchers to study social phenomena while experiencing them alongside the research participants (Merriam, 2002; Warren & Karner, 2010). Like quantitative methods, qualitative methods rely on rigorous research procedures that provide a roadmap for the researcher and encourage a process of questioning in order to maintain appropriate positionality (Warren & Karner, 2010). Qualitative methods fit this research study because it allowed me to explore the multiple meanings and understandings that teachers and students may hold towards digital media

and its place in their lives. Qualitative research methods also opened a space where I could explore my own questions and feelings towards digital media, as both a teacher and a researcher.

*Teacher Research*

This qualitative study employed a teacher research approach. Teacher research is systematic in nature and uses pre-planned methods, detailed recording and analysis of data, and established literature and theories to seek answers to questions gleaned from one's own classroom practice (Cochran-Smith & Lytle, 1993; Stringer, 2004). Teacher research has also been called action research, pedagogical research, or practitioner research (Brown, 2010). The intent of teacher research has been to solve problems teachers face everyday in schools (Guys, Mills, & Airasian, 2006). Through ongoing reflection on their teaching practice, classroom procedures, and school culture, teachers used research results to take steps towards changing school practices or attitudes (Cohen, Manion, & Morrison, 2007; Stringer, 2004). Teacher research takes place within teachers' classrooms, or as in the case of this interpretivist study, the online spaces where students and teachers interact, providing an insider's view or emic perspective (Cochran-Smith & Lytle, 1993). This conveyed the "everyday lives" and other "culturally and contextually appropriate information" that helped us understand the problem being researched (Stringer, 2004, p. 15).

Cohen, Manion, and Morrison (2007) saw teacher research as a way "to bridge the gap between research and practice" since it encouraged teachers to actively engage in the questioning-reflecting-acting research cycle (Defining Action Research, para. 5). Teacher research suited this particular research study because it allows teacher-

researchers, such as myself, to question their teaching practice, systematically applying a research methodology in order to improve that teaching practice, act on the answers gained through the research, and begin the cycle again by questioning those actions. The knowledge gain through this present study has already demonstrated changes in the teaching practices of the four teachers involved—me and the other three teacher participants. It was also my hope that this research study would inform school policies and transform the digital culture of the school.

*Narrative Inquiry*

Narrative inquiry was the chosen method of collecting and reporting data for this qualitative research study. Using narrative research involved working collaboratively with people and listening to their stories and experiences, in order to gain an understanding of their experiences or of a cultural phenomena (Clandinin, 2007; Clandinin & Connelly, 2000; Gay, Mills, & Airasian, 2006). Conceptualized in part by teacher-researchers D. Jean Clandinin and Michael Connelly (2000), narrative inquiry is frequently called storied research because it takes participants' interview data, specifically their anecdotes or stories "as lived and told," reworking them into a re-"storied accounts" linked to questions or themes to use as units of analysis (p. 20, 134). This research technique both studies narratives and uses narrative as the primary method of study (Clandinin, 2007). In some ways narrative inquiry could be seen as an extension of phenomenology, in which the lived experience being studied exists within the stories that make up a person's life. van Manen (1990) saw narratives or life stories as a both as research data and a way of understanding a phenomena within that data. It was the

responsibility of the participant-researcher to uncover the experiences locked within these narratives.

As with phenomenology and many other qualitative forms of research, narrative inquiry starts with personal experiences or autobiographical narratives (van Manen, 1990; Clandinin and Connelly, 2000). Narrative inquiry provided a deeper understanding of complexities within teachers' and students' educational and personal lives through their rich, multifaceted stories (Guy, Mills, & Airasian, 2006; Kramp, 2004). Narrative inquiry was appropriate for this study because it allowed me to seek understanding from teachers' and students' digital life experiences as communicated through their personal interviews and focus groups. Restorying the interview and focus group data allowed me to break down the narrative data into themed selections for more in-depth analysis, showcasing the participants' stories in the reporting of the data (Guy, Mills, & Airasian, 2006).

Narrative inquiry research takes place in a "metaphorical three-dimensional narrative inquiry space" (Clandinin & Connelly, 2000, p. 50). This narrative inquiry space encompassed the researcher's and participants' social interactions, their lives and experiences over time, and the situated sense of place where the research takes place (Clandinin & Connelly, 2000; Clandinin, Huber, Huber, Murphy, Orr, Pearce, & Steeves, 2006). Just as in teacher research, this method encouraged the participant-researcher to enter the space where work is centered. In other words, narrative research about teachers' lives at school should take place in schools, which why all the data collection for this study took place within the walls of Bell High School. Within the inquiry spaces of Bell High's classrooms, as well as the online extensions of these learning spaces, Clandinin

and Connelly (2000) proposed "four directions of inquiry: inward and outward, backward and forward," meaning the research and the participant should evaluate their own feelings, biases, others' points of view, while looking to the past and future (p. 50). This step was reflected in the interview and focus group questions asked, and in the stories gleaned in the reporting of the research. All of the knowledge and experiences within storied lives of the teacher-researcher and teacher participants bare meaning within the research as they shape their pedagogy and teaching practice (Clandinin, Downey, & Huber, 2009). Our personal stories shape our professional storied lives, so the both are within the purview of the narrative researcher. Clandinin, et. al. (2006) also saw similarities in students' lives inside and outside of schools, as these experiences formed their beliefs about their own potential, relationships with teachers and peers, and expectations of life. In their exploration of interactions and experiences of students and teachers from two elementary schools, Clandinin, et. al. (2006) juxtaposed teachers' and students' lives and found a tension-filled inquiry space that revealed a lot about how what happens outside the classroom affects learning and pedagogy inside the classroom. The same could be said about this research study as it explored the teacher-student relationship.

## Research Setting

Alexander Graham Bell High School, the site of this qualitative teacher research study, is a large, urban school serving nearly 1200 students in grades nine through twelve. One of over a half dozen high schools in the largest urban school district in this Midwestern state, Bell has enjoyed a rebirth in the past decade as a magnet school. Students from all over the urban area can apply to attend Bell, but half of the student

body was assigned to the school because members lived within the boundaries established by the school district. As a result of this practice, students at Bell come from diverse ethnic, cultural, and socioeconomic backgrounds. Roughly half the student body is White, with another 25% Black, approximately 10% each Native American and Hispanic, and less than 5% claim Asian descent. Nearly half of the students are eligible to receive free or reduced lunch.

Bell High School practiced open enrollment for magnet and Advanced Placement courses, so all students have the opportunity to take rigorous courses. Teachers at Bell High have noticed that fewer students were choosing these types of classes and those who did enroll seemed less prepared than previous groups of students. Excelling in music, dance, drama, basketball, and student leadership, the general morale and feeling of the school was spirited. Yet Bell High struggled to maintain its place as a top school, even though it has been listed in a national magazine's list of America's best high schools for the past several years. The morale of Bell's teachers wavers, but many of the students I spoke with praised the faculty for the extra work and attention they put forth running clubs and other activities.

Bell High School was housed in the same building with a middle school, and the two shared library, computer lab, gymnasium, and auditorium space. Many people have commented that the outside of Bell looked like a prison because the large, beige cinderblock building was framed with two large square turrets on each side of the entrance, which looked like guard towers. The inside of the school offered wide, intersecting hallways that branched off at many junctions, making it easy to get lost inside the building. The light green speckled tiled floors dated to the school's opening in

the 1950s and beige tile walls came up five feet off the floor and were topped by a wide swath of light green topped with off-white paint. But the halls were normally orderly and the students and teachers were respectful and friendly. As a top school in the district, Bell was frequently visited by local officials and news crews, and this added to the schools' high spirits and the respected position in the community.

## Selection of Participants

This teacher research study employed purposeful sampling to select research participants that represented Bell High School's teacher and student population, and who fit a variety of age, teaching experience, socioeconomic groups, and familiarity with digital media (Gay, Mills, & Airasian, 2006). I wanted to recruit at least three teachers from the high school faculty of varying ages and years of teaching experience in order to obtain a spectrum of teachers' experiences with digital technology inside and outside the classroom. I specifically sought out teacher participants among faculty who already showed strong relationships with students within the school, such as those who sponsored extracurricular activities or were involved with other teacher leadership responsibilities. Purposeful sampling was also used to recruit at least five student participants for the research study from varying grade levels (ninth through twelfth grade, ages 14-18) who were active participants in school sponsored organizations, and could demonstrate their familiarity with popular online social networking sites, such as Facebook and Twitter.

Teacher participants were initially asked to participate in the research study through their school email account. The recruitment email was sent to seven Bell High School teachers, and six responded showing interest in the study. Because of ongoing commitments and conflicts, only three teachers participated in the study, agreeing to

complete Informed Consent documents, as prescribed by the university's Institutional Review Board (IRB), and to take part in both a personal interview and a focus group with other teacher participants. In recruiting student participants to my study, I sought out members of the Bell High School Key Club, a local chapter of the national student service organization. In order to avoid coercion, I asked the teacher sponsoring the group to read a recruitment script and passed out parental informed consent and student assent documents to be returned at the following meeting if they wished to participate. Of the fifteen Key Club members at the meeting, seven chose to participate in the student focus group. Four of these seven student participants were asked to follow up on their focus group comments in individual interviews. Other artifacts included in the research data were the websites gathered from the teachers' and students' digital lives as offered through our conversations, as well as other documents related to the school's demographics and technology use.

## Participant Profiles

Ten members of Bell High's diverse faculty and student body participated in this teacher research study with focus group and individual interviews. The following profiles serve as descriptions of these participants (please note that all names are pseudonyms):

### *Teacher Participants*

#### *Ms. Gladstone*

When students or teachers need information about what's happening at Bell High School they turn to Ms. Gladstone. Having taught for nearly 30 years, Ms. Gladstone served as activities director and student council sponsor at the school. In her many years of teaching, Ms. Gladstone has taught foreign language, leadership, language arts, and

college readiness courses. She has definitely noticed the effect of changing technology on education, and she tries to stay abreast of the latest tech tools. She searches for ways to use technology to streamline her job and create valuable connections between the students at Bell High. Managing Bell High's Twitter feed and promoting school events on Facebook, Ms. Gladstone kept the school and its stakeholders connected using traditional and technological tools.

*Mr. Jennings*

Mr. Jennings, a veteran teacher with over 15 year's experience, joined the Bell High staff five years ago. Now a fixture in the science department, he was slowly trying to integrate the social media experience into his advanced science courses. Using the leading internet social media site Facebook, Mr. Jennings has set up discussion boards for his students to pose questions, discuss class topics, and provide visual resources when they are stumped with lab reports. Mr. Jennings served as teacher advisor of two clubs at Bell, and it was not unusual to find students working on homework or science labs even after the dismissal bell rang. Active in many state and national professional development and science organizations, Mr. Jennings relied on technology to stay connected with these groups. While he owned several computers and was fairly comfortable with technology, he admitted that the usefulness of smartphones, social media, and other Web 2.0 tools continued to open his eyes to new possibilities for both school and personal use.

*Ms. Reece*

While I may call myself the "techie teacher," when I had questions about any of the educational technologies available at school I turned to Ms. Reece. Serving as the on-site technology coordinator for both the middle and high school, Ms. Reece spends a

couple hours of every school day helping Bell's teachers adapt to the technological requirements of teaching in the 21st century. With 15 years of teaching experience in business and technology, she encouraged many of Bell's teachers to adapt Web 2.0 tools to their classroom curriculum. Even with all her technological responsibilities, Ms. Reece was still a classroom teacher at heart and she placed the security, care, and success of her students before the technologies of the day. Using the educational social media program Edmodo and the ever-accessible mobile phone, Ms. Reece has managed to build a digitally-connected classroom community.

*Student Participants*

The seven student participants in the research study were all members of the on-campus service organization, Key Club. They were all juniors or seniors, and were involved in various the student leadership positions. Each brought a unique voice to the focus group discussion.

*Cara*

Cara was a senior at Bell High School and served as a class officer, along with many other student leadership positions. She owned a computer and a mobile phone, "which is not an iPhone," but a simpler model without internet access that was mostly used for texting.

*Francesca*

Francesca was also a senior and was concurrently enrolled in a local community college. She owned a smartphone and a computer, and frequently used Google and the social media programs Facebook and Twitter.

*Gabby*

Gabby, a senior, also attended the community college, along with best friend Francesca. She owned a laptop computer and used Facebook, Twitter, and the social media up-and-comer site Pinterest.

*Grant*

Grant was a junior at Bell High. He was very involved in student leadership and sports. He also owned a smartphone, a family computer, an Xbox game system, and used Facebook, Twitter, and the internet radio site Pandora.

*Hannah*

Hannah was a junior and was very involved in student leadership, including serving as a class officer. She owned a smartphone, which she used to check her grades, check out social media sites Facebook and Twitter, and shared photos with Instagram.

*Rosalyn*

Also a junior, Rosalyn was also very involved with student leadership, as well as cheerleading. She owned a smartphone and computer. She also used Facebook, Instagram, Pinterest, and enjoyed online shipping.

*Wynter*

Wynter was a junior at Bell and is also on the cheer squad with Rosalyn. After two years at another school, she recently returned to Bell High. She also owned a smartphone and was a Facebook user. She also utilized her home computer for school and keeping track of her favorite fashion blogs.

## Data Collection

This research study used artifacts, interviews, and focus groups as data collection methods. By using multiple methods and data sources, qualitative researchers are able to provide triangulation to strengthen the trustworthiness of the research study (Guy, Mills, & Airasian, 2006). The data collection phase took place from December to February of the 2011-2012 school year. After obtaining informed consent and necessary permissions, I began the data collection by conducting the student focus group, as well as the initial individual interviews with my three teacher participants. Qualitative interviews yielded units of social interactions and allow the interviewer and participant to co-construct knowledge in the process (Warren & Karner, 2010). Focus groups provided small group interactions and dialogue that can be used to as data (Hesse-Biber & Leavy, 2004; Warren & Karner, 2010). I initially interviewed the students as a group because I believed they would find it easier to converse about their online lives with other students with common interests present. Both the focus group and semi-structured interviews were conducted outside the school day within the teachers' classrooms and lasted about 40 to 50 minutes.

The student focus group questions, also field tested during a pilot study, gathered information about (a) the student's personal use of media, (b) their online lives and relationships, (c) their understanding of digital literacies, (d) their feelings towards traditional teacher-student relationships, and (e) opinions on building online relationships with teachers (Appendix A). The focus group was recorded, transcribed, and reviewed by selected students individually with member checks and follow-up interviews.

The teacher interview questions, field tested during a pilot study, gathered information about: (a) the teachers' use of technology within the classroom and in their personal lives, (b) how they built relationships with students in the classroom, (c) interactions with students using online digital media, (d) how they taught digital literacy inside the classroom and in online interactions, and (e) their feelings towards building relationships with students using online social media (Appendix B).

The second phase of data collection involved the follow-up interviews with both the teacher and student participants, and the teacher focus group. Each of the teacher participants shared their online classroom interactions and their websites were used in order to gain more understanding of how teacher use digital spaces to extend their teaching and build relationships with their students. The interactions and understandings gained through focus group research benefited both me as the researcher and the teachers, as they shared ideas about using digital media as a learning tool. The focus group questions centered on (a) classroom media use, (b) teacher-student relationships, and (c) perceptions of online teacher-student relationships (Appendix C). The focus groups and follow-up interviews were recorded, self-transcribed, and reviewed by the participants through member checks.

## Data Analysis

Qualitative data analysis typically takes place throughout the research study, as the researcher questions their own choices and focuses on specific research questions to ask (Guy, Mills, & Airasian, 2006; Warren & Karner, 2010). Throughout this research process I continually analyzed the data through transcription, revisiting the literature, building the follow-up questions, and reading and re-reading all the data multiple times to

gain a holistic perspective of the research. Using open coding—an inductive method of data analysis where close reading of data reveals distinctive ideas to be labeled and coded—I searched through the transcribed text for unique or recurring themes (Merriam, 2002; Warren & Karner, 2010). This process initially revealed 42 coded themes (Appendix D). After completing this process a few times, each time questioning the created codes and categories in order to fully analyze the data and comparing the codes to research literature, discarding some topics and combining others, three broad, but manageable coded units remained. I then returned to read the text within each unit in order to gain a better understanding of emerging social phenomena and clarify necessary sub-themes within the text. Elements from the raw interview and focus group conversations with the research participants within each coded and categorized unit were then used to form the re-storied narratives that illustrated the themes gleaned from this analysis process as seen in chapter IV.

## Ethical Considerations

As an ethical qualitative researcher, I continually questioned my bias, positionality, methods, research questions, and myself as an instrument within my research. I was also concerned with my research participants who opened their lives to me, and I took several steps to protect their rights in the research process. As instructed by the IRB and the Responsible Conduct of Research (RCR) guidelines, I was honest, ethical, and accurate when conducting and reporting on my research. The first step in this process was receiving all necessary permissions from the IRB, including informed consent, assent, and parental permissions when necessary. While informed consent assured research participants of their rights, I also protected my participants' identities in

the reporting of the research by using pseudonyms for each participant and the educational institution where teacher research study took place. This provided confidentiality for the participants, aside from the other study participants. Member checking and follow-ups also allowed for accuracy throughout the research process.

## Trustworthiness

The steps discussed above to assure ethical conduct provided some measure of validity within a qualitative research study, but ethical researchers are also concerned with the trustworthiness or the credibility, transferability, dependability, and confirmability of their research study (Figure 1). The credibility of the research is determined by the methods used to conduct the research study and dependability is determined on the accuracy of recording and reporting the data (Guy, Mills, & Airasian, 2006). This research study used triangulation or multiple methods of data collection, member checks for accuracy, and participants' words in reporting of data. I also explained my reasoning and methods of coding in order to provide "an audit trail" of my research methods (Bloomberg & Volpe, 2008; Guy, Mills, & Airasian, 2006, p. 405).

| Trustworthiness Criteria | Strategies Used |
|---|---|
| Credibility | Triangulation of data (multiple sources); Digital recording and transcription of data; Member checks; Audit trail/Field notes; the same semi-structured interview questions were used with all participants; Position as an insider (participant-researcher) |
| Transferability | Field notes; Detailed descriptions of the research setting and participants |
| Dependability | Audit trail/field notes |
| Confirmability | Triangulation of data (multiple sources); Subjectivity statement; Personal reflections and questioning of positionality |

*Figure 1: Trustworthiness Criteria and Strategies*

Transferability in qualitative research refers to likelihood of phenomena occurring in one context applying to other similar context (Warren & Karner, 2010; Guy Mills, & Airasian, 2006). This study took place within a large, urban, magnet public school, but the lessons learned through the research may help educators across the country understand the issues related to teacher-student relationships in the digital world. Confirmability in qualitative research refers to the objectiveness of the researcher (Bloomberg & Volpe, 2008; Guy, Mills, & Airasian, 2006). While qualitative researchers reject the notion of objectivity in favor of questioning and revealing their biases and positionality, confirmability requires the researcher to question and reflect throughout the research process. As an ethical qualitative researcher, I searched out and discussed how my beliefs, biases, ethnicity, and power affect my research and findings.

## Limitations

Most qualitative research studies share similar limitations, such as the inability to generalize or transfer the findings to larger populations, incidents with self-reporting in which participants were untruthful, and researcher subjectivity or bias. All of these limitations have already been discussed and accounted for to some extent. As van Manen (1990) reminded us qualitative research may only offer "one interpretation" of events and cannot fully explain all possible meanings or experiences (p. 31). Other limitations of this research study included the relatively small sample of ten participants. Although using a larger sample may have yielded more information, the participants used in the study were selected for their position and knowledge related to the research topic. The limited data collection time period could also be considered a limitation, although the research study

was more concerned with the participants' prior knowledge and experiences and therefore that should not have been affected by the limited time frame.

## Summary

This chapter outlined the methods I used for my qualitative teacher research study that explored the meanings teachers and students assign to digital media and the interactions of teachers and students in the digital world. The ten study participants, three teachers and seven high school students, were interviewed individually and took part in focus groups, in order to offer a brief glimpse into their digital lives. Chapter IV explores the interview and focus group data, along with any online artifact data, through re-storied narratives gathered from the themes gleaned from text data. In Chapter V these themes will be further analyzed and synthesized with current literature to provide a picture of the state of teachers' and students' digital lives.

# CHAPTER IV

## FINDINGS

*#teacherproblems*

*When I need a laugh at the end of a crazy day at school I'll search this particular hashtag on Twitter. The search usually reveals teachers' tweets about grading papers, serving afterschool detention, hilarious classroom antics, or their worries over the future successfulness of students. With my plan period at the end of the day, my number one #teacherproblems tweet would have to be "Having to wait to the end of the day to go to the restroom."*

*When my sixth period freshmen class runs out the door, I typically take a moment to lean back in the chair, close my eyes, and relax for about 30 seconds. Then it's back to reading emails, checking messages on my mobile phone, shuffling papers on my desk, organizing things for the day to come, and finally running to the restroom. On returning to my classroom one day last week, I found a student sitting behind my desk. She was not on my computer—which is against school rules—but reading the text messages on my phone! Upon my entering the room, she shot out of my seat, as I shouted "What are you doing?" Of course she replied "Nothing," and ran from behind my desk. Searching for that elusive teachable moment I asked her, "Why are you reading my text messages?"*

*Her babbled response equated to many of the same reasons I found in my*

*research as to why students used social media—their curiosity about the lives of other, especially their peers and teachers, and their need form and maintain social relationships with others. Youth sustained these connections primarily through their mobile phones via texting, calls, and online social media networks. Digital technology now offers young people the opportunity to stay connected in ways we could not have imagined a generation ago.*

*As for the young lady going through my phone—well, I immediately let her know that what she did was wrong. Not only was it an invasion of privacy, it bordered on theft of teacher property. She apologized, explaining that just wanted to see who I'd been texting. And once again, she told me I was her FAVORITE teacher! But the incident left me wondering about how technology mediates many of our relationships, its ability to lay our most personal thoughts open to the public, and my responsibility to educate my students to live with the challenges of this new Digital Age.*

*New Tweet: Giving up your personal privacy in favor of the teachable moment #teacherproblems*

## Introduction

As a media literate teacher trying to engage 21st century learners, I have continually experimented with different digital learning tools. My classroom boasted an interactive whiteboard, my students used clickers (an interactive student response system) for class assignments and tests, we frequently created digital projects, and we had extended our classroom learning online with the educational social media site Schoology. Yet I still questioned the effectiveness of these digital tools and wondered if engaging students with these bells and whistles added to or detracted from students' learning

process. I also knew that I was not alone in my questioning, and that was one of the reasons I found this teacher research project so fulfilling.

## Research Approach

In talking to both my fellow teaching colleagues and the students of Bell High School, I found that they too questioned and evaluated their digital lives. For this project I approached seven teachers at Bell High with varying amounts of teaching experience and who actively participated in sponsoring clubs or leading other student activities. Only three committed to participating in the study and all were veteran teachers with at least 15 years teaching experience. While I would have liked the input of younger teachers in the research project, I came to realize that of Bell's 80 high school teachers, fewer than ten were less than 35 years old. I approached a couple of these younger teachers, but none chose to join the research study. Teacher participants completed one individual interview, one follow-up interview, and two of the three teachers also completed a focus group interview (Figure 2).

| Name | Content Area | Years Teaching | Race/ Ethnicity | Technologies Most Used |
|---|---|---|---|---|
| Ms. Gladstone | Study Skills, Leadership, Student Activities | 29 | White | Facebook, iPad, Internet, Smartphone, Twitter, Smartboard |
| Mr. Jennings | Science | 15 | White | Internet, Facebook, Smartphone |
| Ms. Reece | Business, Technology | 15 | Black | Edmodo, Facebook, Internet, iPad, Smartboard, Smartphone |

*Figure 2: Teacher Participants at a Glance*

Using purposive sampling, I chose to recruit student participants from an already established group on campus, Key Club. Seven students, six girls and one boy, participated in a focus group interview. Also, four of the students answered more

questions in follow-up interviews (Figure 3). While I would have liked a more diverse group of students represented, I believed the timing of the afterschool focus group session may have hampered the participation of many students. Bell High School sits in an upper class, predominately White neighborhood, but the student body represented many ethnicities and socioeconomic situations. Many of our students were driven or bused from up to 15 miles away. As a result, most of the students represented in this research study were White (one of Hispanic origin and one Asian) and all were comfortably middle class.

| Name | Grade | Race/Ethnicity | Technologies Most Used |
|---|---|---|---|
| Cara | 12 | White | Mobile phone, Internet, Facebook |
| Francesca | 12 | White | Smartphone, Internet, Facebook, Twitter |
| Gabby | 12 | Asian | Smartphone, Internet, Facebook, Twitter |
| Grant | 11 | White | Smartphone, Internet, Facebook, Twitter |
| Hannah | 11 | White | Smartphone, Internet, Facebook, Twitter |
| Rosalyn | 11 | White, Hispanic | Smartphone, Internet, Facebook |
| Wynter | 11 | White | Smartphone, Internet, Blogs, Facebook |

*Figure 3: Student Participants at a Glance*

## Uncovering Emergent Themes

All the interviews and focus groups were digitally recorded, self-transcribed, and coded for common themes using an open coding process. This process involved reading and re-reading the transcribed interview and artifact data to listening for overt and covert meanings from the text. Open coding revealed 42 separate points of discussion within the texts, such as Facebook, Twitter, fear and frustration involving technology, and both positive and negative experiences in teacher-student relationships (Appendix C). By combining many of these coded units of data by related topics and placing them under an

umbrella idea, I was able to narrow the list of themes down to three broad topics. For example, both teachers and students spoke about the popular social media sites Facebook and Twitter. While these are wildly popular, students also spoke about using lesser known social media sites, such as Pinterest, Instagram, and Tumblr. One of the teacher participants used the education social media site Edmodo and spoke frequently about it in our interview. All of these various social media sites, along with other digital hardware tools and applications and the lack of such technologies, were joined under a larger umbrella topic—Utilizing Digital Technology.

The next umbrella topic, Teaching and Learning in the Digital Age, contained the participants' thoughts on ways to use digital technologies in schools; the process and time required to learn to use these continually changing technologies; the role of professional development and personal learning networks in digital learning; issues of privacy for both teachers and students; and the problems that arose when teaching and learning within digital spaces. The final broad umbrella topic, Relationships and Connections, explored the teacher-student relationship in the classroom and online, and how and why both groups chose make connections using social media and other digital tools. Returning to the data, these umbrella topics and their detailed sub-themes were used to select participants' words to be re-storied into the narratives shown in this chapter. Each narrative included many of the participants' actual words—from their interviews and focus group participation—just reorganized into a narrative surrounding a specific theme.

Both the teacher and student data were treated equally in the coding process in order to reveal themes that all participants discussed. Students tended to speak more about the digital tools they used and how they used them, while teachers seemed more

concerned with the ways these digital tools were used in teaching and learning. This is further explored with both student and teacher narratives, as well as snippets of interview and focus group data from both groups. Often they agreed on topics, but their narratives showed the complexities of digital life by exposing two or more sides to the same story.

## Utilizing Digital Technology

Each year my world history class usually begins with a discussion of pre-historic humans and their quest for sedentary, comfortable lives. The first step on this quest was procuring technology. Of course my students pondered how cavemen could afford computers, but I brought them back to the basic definition of technology—using skills and tools to solve problems and better our lives. For the pre-historic peoples, the best technology available equaled Stone Age tools, but 21st century living calls for Digital Age tools. In speaking with Bell High's teacher and students, much of the discussion time centered on what digital tools the participants used and how they used them. The internet, social media sites like Facebook and Twitter, hardware such as phones, computers, and tablets all surfaced in our conversations. This demonstrated the importance my participants placed in digital technology, and this was also why I chose to begin this narrative journey with this umbrella topic.

Understanding the roles these tools played in the digital lives of teachers and students required delving into the words and narratives of the participants. This section contains five re-storied narratives that illustrated the ways teachers and students utilized digital tools for personal, professional, and educational purposes. While the Digital Age tools being used were not surprising, I found the intentionality teachers applied to their use in order to both extend the teacher-student relationship into digital spaces and intense

relationship students felt for these inanimate objects, such as phones, to be quite telling. For example, in the following narrative Mr. Jennings, a science teacher at Bell High, described his slow transition into the Digital Age and his need for finding meaning or purpose in the technology's use before choosing to adopt digital tools.

***Mr. Jennings goes High Tech***

*I'd never even heard of Facebook five years ago. It was my first year teaching here at Bell and the students were talking about it. So I started asking questions—What is it? What does it do? What's the point? I could see that the kids were into it, so I thought I'd better check it out. But I didn't do anything right away. It was probably the next school year before I made a move. Once I actually got onto Facebook I could see that it was useful. That's what's important to me—whether the technology is useful or not.*

*The same thing kind of happened with choosing whether or not to get a cell phone. I was one of those people that avoided owning a cell phone for the longest time. I didn't have one until about two years ago. I just thought they were a fad, and I hate fads. I just don't buy into them. Like Seinfeld! Everybody was watching it and saying how it was so funny. Really? I refused to watch it—to be a part of a mindless herd. Now that I've watched the reruns and I can honestly say I've only seen three episodes I thought were funny. So, yeah, I thought cell phones were a fad, and it wasn't until I was doing consulting work with an aquarium in California that I saw how useful they could be—especially smartphones.*

*I was out there with my laptop trying to hi-jack an available Wi-Fi signal to send an email to my group members, but I noticed everyone else was using*

*their phone. I was like "That's bizarre," and I couldn't figure it out. Finally I asked, "What are you all doing with your phones?" So they showed me how they could send emails, text messages, and communicate with people all over. After that I went out and got an Android phone, and I'm already on the lookout for my next upgrade.*

*For me, I have to see how it can be useful before I go out and invest time and money into it. I've always had computers, but now I use a video camera to capture visuals for my PowerPoints and the lectures I give across the country. I've started using Facebook for discussion groups in my science classes. I don't really use Twitter that much, although I have an account. But I also look to my fellow teachers on the online discussion boards for new technology ideas—things that work in their classrooms that I can try out. Useful things.*

Mr. Jennings, like many teachers across America, has found himself living in an age where technology continually accelerates. Some teachers try to keep up with the tech "fads," while others may feel it would be impossible to learn all the newfangled tech tools available. Like a teacher-researcher, Mr. Jennings questioned the technologies' uses and usefulness before choosing to adopt it or adapt it to his classroom. His adoption of Facebook and choice to establish class discussion groups on the social media site mirrored stories from teachers in Carter, Foulger, and Ewbank (2008) and Richardson (2010) where teachers utilized online social media networks to sustain classroom learning communities beyond the physical classroom. In the literature, the teachers spoke of their relationships and communications with students as a valuable asset to students' learning experiences. The popularity of the technology and its widespread use seemed to be

enough to entice and engage the students to use it for educational, not personal, reasons. Like these teachers, Mr. Jennings felt the prominence of this leading online social media network could be used to support student learning and strengthen his relationships with students. Mr. Jennings could see a difference in the level of knowledge and understanding his gained through the additional online communication.

In my discussions with students over their digital technology choices, I saw that they tended to embrace new technologies with open arms, and often searched out the newest trends in order to be the coolest kid in school. The technologies used by teachers and students were not so different, although the time it took them to adapt to these need technologies and the ways the two groups utilized them were different. The Digital technology the participants relied on for personal use were social media networks, such as Facebook and Twitter, and mobile phones. For educational use, computers, educational software and websites, and Smartboards weighed most on minds of teachers. The discussion of Digital technology use concluded with thoughts on existing digital divides at Bell High School and ways the participants combated these inequities.

*Social Media*

All of the research participants in the study used one or more online social media sites, Facebook being the one commonality between them. As seen in Mr. Jennings' narrative, he more recently joined the massive social media site after being prompted by his students. Mr. Jennings had "multiple accounts" on Facebook to separate his underage students from his adult friends. On his "teaching account" he interacted with students, teacher colleagues, and some parents, but most of his posts were on his "personal account" where he occasionally ranted about educational policies or politics. He had also

received requests from other social media networks LinkedIn and Google+, but he had not quite figured out the "usefulness" of these social media sites.

Ms. Gladstone also used Facebook to keep in contact with her students, but she only maintained one account. She used it to track and organize students for important events on Bell High School's calendar, such as homecoming and spirit week. She shifted from using email to social media several years ago when she realized her students no longer checked their email accounts, but were messaging and chatting on social media sites, such as MySpace and Facebook. The students in her leadership course and members of student council used Facebook to communicate, and Ms. Gladstone let her students know that her involvement in Facebook was for facilitating communication, not an "I'm your best friend kind of thing." She used the same approach with her Twitter account, rejecting the "here's what I'm doing—this is my status" standard style of tweets for more informational postings of current events at Bell High. Ms. Gladstone easily kept track of these social media accounts with her iPhone and iPad. The additional pieces of hardware allowed her to stay on top of her grading with a mobile grade book application, send text messages, and even FaceTime (an Apple application for video calls) with her family on the east coast. With so much technology at her fingertips, Ms. Gladstone still felt that a lack of time prevented her from using the available technology to its fullest extent.

Ms. Reece, also kept a Facebook account, but she did not allow "current students" to be her friends on the social media site. "I give 'em like a two year waiting period before I go and accept them," Ms. Reece jokingly explained, stating she really did not want to be bombarded with images and texts students posted. Instead, her Facebook

account was linked to family and friends, with whom she played online card and quiz games—her obsession in her free time. Ms. Reece's use of Facebook was similar to the ways that students employed the social media site. Students at Bell High also frequented social media sites. All the students I spoke with had a Facebook page and four of the seven also used Twitter. Wynter described Facebook as "a way to see what's going on in life," and many of the students reported viewing the site to see others' lives rather than posting about their own lives. For example Cara talked about how she used the site:

***Cara and her Facebook friends***

*I spend most of my time on Facebook looking at other people's pictures and checking out their statuses. I don't really post things that often. I'll post pictures, but I only post statuses like twice a year . . . if then. It's just more fun to see what everyone else is doing, to see what people think about things. I like seeing what's happening, and sometimes it's the only way to know what's going on with your friends. It's funny, but my brother apparently won a national award for drama and I found out on Facebook because someone wrote "Congratulations" on his wall. He's my twin brother, but I found out online. Sometimes you find out interesting things on Facebook.*

Cara was not alone in the way she used Facebook. Rosalyn explained that she posted "three statuses a year" on Facebook, and only then because she was told to by her cheer coaches in order to let others know about events or competitions. She typically just wrote birthday greetings on friends' walls and looked at photos. Wynter only posted when she had "something really funny or like a really good quote" to share. It was surprising that the students relied on social media for surveillance of others rather than socializing or

communicating. Some felt the social media site was losing its luster and they now used other apps.

Francesca preferred Twitter over Facebook because it provided a streamlined version of status updates and the ability to search what people were saying about a topic by searching hashtags. Hannah agreed, and admitted to being a little obsessed with the social media site, sharing that she had to check what was posted on the site before she got "out of bed in the morning." Grant even admitted tweeting several times a day, but usually to tease his friends. Grant, Hannah, Gabby and Rosalyn were interested in a new social media photo sharing app called Instagram. It allowed them to take pictures with their iPhones, edit them, and then upload directly to Facebook or Twitter. Hannah said it made her feel "like a photographer" as her snapshots garnered praise from her friends. Another popular social media application was Pinterest, which Rosalyn called "really nerdy and fun." This social media application encouraged users to surf the web to find recipes, crafts, and other fun stuff to do and pin it to a public wall to share with others.

Straying from pre-packaged applications, Wynter expressed an interest in blogs, especially fashion blogs, since she planned to study fashion design "in college." She used the blogs to track "what's in trend," "what designers are coming out with," and their "inspiration." Blogs allowed her to see a designer's thought process and their completed design at a fashion show. So while entertaining, Wynter relied on the internet blogs to research her chosen career, illustrating both the personal and education side of the technology.

*Mobile Phones*

All of the social media sites mentioned above were not just found on computers. Most of the students in this research study owned smartphones and used them to access applications like Facebook and Instagram. All of the teacher participants owned smartphones, but only Ms. Gladstone spoke about using her phone to access social media networks. A study by media research firm Nielsen (2009) demonstrated this generation's reliance on mobile phones, as well as the time they spent using these different digital tools. As major media consumers, Nielsen (2009) found that teens sent nearly 100 text messages a day, surfed the web on their phones, and watched hours of video (twice as much as adults). While teachers saw students' obsession with the technology as a hindrance to learning, youth have rationalized their need for the devices. In Hannah's narrative below, she described her relationship with her iPhone4S, the current top-of-the-line mobile phone available from Apple. Like many of the students I interviewed, Hannah's attachment to this device went beyond its usefulness as communications tool.

***Hannah and Siri***

> *I've always had a cell phone, well since sixth grade anyway. I think that's one thing teachers don't understand, you know, that we've been raised with them. They are a part of our culture, part of who we are. Phones aren't just for texting. I can do anything, really, anything with my phone. I just got the new iPhone 4S and while Siri* (the disembodied voice of the digital personal assistant program that comes with the phone) *is kind of annoying because she doesn't understand me half the time and won't give me what I want—but having the internet is just really convenient. Like, just today my friend got into a car wreck and he was*

*freaking out about whether his car was totaled or not, and if he was going to get any money to buy another car or get it fixed. While we were talking I was able to look it up on my phone and tell him, "This is what your car is worth." I mean, that's kinda cool.*

*This is the first phone I've had with internet. If I'm just curious about something or if thoughts rush into my head in the middle of night, it's so easy then to just pick up my phone and research it. I use my phone to check my bank account balance, sync my work and school calendars, and set up reminders for all the things I need to keep track of for spirit week. I'll admit that I even check my grades on my phone three or four times a day. I always like knowing what my grades are. I know that sounds a little extreme, maybe even addictive, but, you know. This is something we talked about in my psychology class. They are now looking at gambling and cell phone use as another form of obsessive compulsive disorder. I don't think I'm addicted, I've just have a lot, you know, invested in my phone.*

*You see my parents told me and my brothers that we could get any phone we wanted, but they were only paying $100. So I had a choice between the iPhone 4, which I think was about $100, or the new 4S. I spent $100 of my own money to get the iPhone 4S, plus I pay for my data plan. So because I paid for it and I pay for the extra internet service, it means more to me than other things. Not school work, of course, but I think there are times and places where we should be allowed to use our phones at school. In my statistics class, our teacher lets us use our phones as calculators. I don't see a problem with using them in the halls*

*between classes, at lunch, or using it to play music if we are working quietly in class. I just think teachers need to understand how much phones mean to us and how they can actually be useful instead of just assuming we're texting. I mean, technology is changing.*

Hannah's story on the way she felt about her cell phone exemplified how most of the students felt about their phone—it was the most important technological tool at their disposal. They used their phones as mini-computers, as calculators, as links to their friends and to the world. All their favorite social media applications were accessible through their phones, and they used their phone more than their personal computers. Cara, a senior at Bell High, called her phone "a safety net," saying she simply felt safer with it around. Cara did not have a smartphone or internet on her phone, but she still spent a fair amount of time texting. She often relied on her classmates with smartphones to do research for school events, such as buying decorations and favors for the senior prom. Wynter spoke of using her iPhone "to text or call," as well as checking on "what's going on in life" via the social media application Facebook. But Wynter also felt there was a time and place for the technology. "I can't stand it when people text in church," she plainly stated, "and kids using their phone at dinners, that's what annoys me." Wynter, who usually carried her phone everywhere, identified ways that the communications device got in the way of families and friends communicating.

Hannah kept her phone with her all the time, even though the school district rules prohibited the use of cell phones during the school day. Hannah and her student colleagues saw the mobile phone policy as outdated and in need of revision. With students' reliance on their mobile phones and other digital technology, they expected

schools to cater to their cravings for digital connections (DeGennaro, 2008; Prensky, 2010; Tapscott, 2009). These authors' work focused on today's youth, their expectations of school, and their preferences for both learning and entertainment experiences that were both exciting and personalized. The problems rested in the dichotomy of teenagers' expectations and schools that have not typically been geared to appeal to students' desires for excitement and personalization. In our focus group, the students talked about how they were able to multitask with these devices. As you saw in Hannah's narrative, she used her phone in a variety ways, from researching, keeping track of her scheduling, as a calculator, to enjoying the internet and all the available apps her phone features. It did not come as a surprise then that these students felt perturbed by Bell High's ban on mobile phones in the classroom.

According to the school district's policy, students were banned from using any wireless devices, including cell phones, personal computers, or cameras, at any time during the school day, "unless expressly approved by the principal or designee" (District Code of Conduct). This policy also prohibited students from carrying electronic devices on their person. The reason given for this strict policy was to "avoid disruption of the educational process" (District Code of Conduct), but students at Bell envisioned a school where wireless devices were a part of that educational process. Cara thought that getting rid of the current policy would decrease students' desire to text in class. Gabby liked the idea, but personally felt she was not quite ready for a free-use cell phone policy and suspected students would "abuse it." Weighing in on the subject, Rosalyn commented that the rules for cell phone use should be at a teacher's discretion, including how and when students would be allowed to use the devices. Rosalyn admitted relying on her

phone as a classroom resource from time to time, both as a dictionary and a calculator. Cara also believed it should be a teacher's choice to allow phones in class, and had already seen a slight loosening of policy in some of her classes. While Cara felt the idea of using the phone as an educational resource might take some time, she believed the benefits to students' learning may outweigh the risks to the educational process.

Hannah, the proud iPhone4S owner, spoke passionately of the device as if it were an extension of her person. Cara also seemed attached to her phone, even though it did not have "internet or anything," but expressed feelings of regret or fear when she left the phone behind at home. What surprised me the most when speaking the students was that they did think about the effect mobile technology had on their lives—although most probably could not recall what life was life for them before mobile phones. This metacognition struck me in particular with Wynter:

***Wynter Wonders . . .***

> *When I first got my phone, I spent so much time texting and answering Facebook friend requests that I began to wonder, "Am I texting because I need to talk with my friends? Or am I texting just because they are texting me, like they're bored or something?" I got to the point where I didn't want people texting me all the time.*

With her words, Wynter demonstrated maturity, rationalism, and questioning rarely seen in young people. I saw her questioning, her decision to curb her cell phone use, and her search for answers as a step towards media literacy. Thoman and Jolls (2004) credited media literacy education with empowering students to make decisions about the media's role in their lives. Teachers may often feel that students simply do not understand the

reasons behind school rules, such as the school district's cell phone policy. Media literacy education encouraged students to join the conversation and offer well thought out solutions to these issues that have arisen in the Digital Age. Teachers, students, parents, and administrators should work together to craft mutually beneficially policies and effective learning environments.

*Digital Tools for School*

Within the discussions of different Digital Age tools, I questioned Bell High's teachers and student as to what school specific technologies they use inside and outside the classroom. I was surprised to hear from students that the school district's online grade access portal was one of their most visited internet sites (although most of them were honor students). The district used Pearson's Powerschool and PowerTeacher as its grade book, attendance, and records software. As seen in Hannah's narrative, she admitted checking her grades on Powerschool "three or four times a day" on her phone. Wynter, an iPhone user like Hannah, had created a link on her phone to quickly access the website. "I definitely log on a lot if I'm struggling with a class or if I'm worried about certain assignments," Wynter shared. The constant access allowed her to "always know" her grades. I worried that both students must suffer from constant stress, but Hannah said that it helped her to know this information. Cara on the other hand only checked out her grades once a week and that allowed her to check up on her teachers' progress with entering "accurate grades." Cara spoke to one of the fears expressed by Goodson, et. al. (2002), that digital technology could be used as a means of surveillance for both teachers and students.

Teachers not only felt the pressure to enter grades quickly and accurately, but also the pressure to learn how to use the new technologies. Other than updating grades with the Powerschool software at least twice a week, all teachers at Bell High School were required to maintain a webpage on the school's website that contained syllabi, assignments, and contact information. As Ms. Reece explained, sometimes teachers seemed overwhelmed or frustrated by the sheer amount technology they were expected to operate: "We use Sharpschool. We use Powerschool. We use Microsoft Office, Microsoft Outlook. All those different kinds of problems [and] programs," she explicated. Ms. Reece not only noticed her colleagues' frustrations with the technology, but also which teachers seemed to have the most problems. "The younger generation, I would say 40 and under, they're pretty successful with using the technology," she found, but "I would say 40 and over, they are still slow to change." Veteran teachers, like Ms. Reece, may be tech savvy, but still have a difficult time with how technology "change[d] so quickly" and how to adapt to these changes.

Ms. Gladstone, owner of two versions of the iPad tablet, also felt frustration at times "when it [the technology] doesn't work" as advertised. This seemed to be a constant problem for both teachers with Powerschool. She also struggled to find time to learn how to use all the tools available to her, like her Smartboard:

***Ms. Gladstone's Smartboard Lessons***

> *I have this really cool Smartboard here, even though the speakers are not working at the moment. The students figured that out. They are the ones who really help me find ways to use it. I just haven't had the time to do all the things I*

*would like to do with it, you know. It just takes so much time to plan and set up the lessons.*

*We've been using it this week in my leadership class. I found this leadership curriculum online that has videos—The Leadership Secrets of Santa Claus! The kids love it, and we've been trying to link what the videos say about how group dynamics work—you know, Santa's reindeer—with our class projects. We've been planning our 12 Days of Christmas video we do every year. Since I had videos from past years on my computer, I was able to show them on the Smartboard for the kids who had never seen it before. Afterwards, we started making lists, coming up with creative ideas for this year's project. The Smartboard made this process a little easier because each class that came in was able to simply add their ideas to the lists the previous class already made.*

*I guess that's one way the Smartboard can save you time. If a student misses class, they can go through the lesson or see the class notes with the Smartboard on their own.*

Ms. Gladstone integrated digital video and the interactive nature of the Smartboard into her classroom lessons in order to engage her students and to foster classroom discussion. Interactivity and community were very important elements of Ms. Gladstone's pedagogy, and this was exemplified in her student's work. While the technology offered her new ways of incorporating activities into her lessons, the complexities of the technology also hindered her ability to use it effectively because of the time required to plan these interactive lessons. Goodson, et. al. (2002) and Rogow (2004) were both concerned with the lack of time teachers had to learn to new

technologies and to use them effectively. These authors saw how the lack of time frustrated teachers and prevented them from reaching their goals of technology implementation and digital literacy. Ms. Gladstone wanted specified technology learning time to be build into the school day or into already mandated district professional development days. "I want to do an iPod thing, an iPad thing; get everybody that want to do an iPad thing together," she suggested, "but I think that everybody's so busy that it's a hard thing to do." In a desire to learn more about the available technology, Ms. Gladstone wanted to form a community of practice with other Bell High teachers interested in expanding their knowledge of new technology. It seemed that digital learning tools created an awkward balance between taking time to learn and saving time for teaching. This juggling of time had also prevented Ms. Gladstone from seeking out teaching colleagues at Bell who were willing to create a community of practice focused on technology.

Facing another digital obstacle, Mr. Jennings felt held back by the type and speed of the school computers and network. "If I want to do a clicker test, I have to bring my laptop and use that because it's the only thing with enough crunch power to actually run the program," he suspected, "None of the district supplied computers can run it for me." My conversations with Mr. Jennings revealed a new type of digital divide I had not considered—teachers, not just students, lacking access to new technologies.

*Digital Divides*

Traditionally, the digital divide has referred to gap between those with access to digital technology and those who do not based on socioeconomic, ethnic, cultural, or class differences (Pew Internet Research and American Life Project, 2011; Goodson, et.

al., 2002). I felt this access gap should be important to educators because of the critical inequities among our students and the role of schools in reproducing these inequities in the future. In the teacher interviews and focus group, these differences in student access to technology were clearly visible, and deeply concerned both Mr. Jennings and Ms. Reece. Students were not typically aware of this phenomenon, but saw the lack of availability of technology within the school as a disadvantage for all of Bell's students. In his narrative, Mr. Jennings shared his thoughts on education's role in closing the digital divide.

***Mr. Jennings says "Adapt or Die"***

*We still have a few students who don't have a computer at home, and I think it's the school's job to teach kids how to use computer technology. I do what I can to help. If a student needs to type a paper for class or do research online, I've got an old computer in the back of the classroom there so they can use it to complete their work. Students come in during lunch, before, or after school and use it. And quite a few take advantage of that. I know many of them don't have access to the technology because of money, or their parents don't have a job, or whatever—but all that really doesn't matter. When they go to college or get a job they're gonna have to compete with students who know how to use the technology. If you don't keep up with the technology, you will be left behind. Life is about adaptability and change. You have to keep up with the changing technology—adapt or die.*

*That's why schools need to adapt to social media and other new technology. Using technology in classroom helps out those students who don't*

*have access to it, and it sometimes hits learning styles that traditional teaching methods miss. We are trying to teach kids to live in this interconnected society, right? But the way things look now, there are still a few people on the fringes that aren't being reached. The states or the feds need to step up with money to help schools do this, especially rural schools. They're already written it into the state learning objectives, but they haven't provided the money or up-to-date technology for us to meet those objectives. The technology that we have available here is too few and far between. Our computers are four to five years old, and I don't even have a Smartboard. This is first school I've worked at where I didn't have a Smartboard! The state's gonna have to put a lot of money into the schools in order for us to meet those objectives for every student.*

Mr. Jennings voiced strong opinions on the role of government educational policy in creating equity and opportunity for all students. His concerns included important questions that many teachers across the country share: How do schools equip students with a technologically current education when the schools' available technology is neither current nor accessible? Jenkins (2009) addressed some of these equity issues in his discussion of the participation gap and the need to fill that with gap critical digital literacy. Like Mr. Jennings, Jenkins (2009) also felt it was the schools' responsibility to equip students with the skills necessary to live in a democratic, participatory, "networked society" (p. 51). It seemed that in Mr. Jennings' opinion, schools were failing to meet this responsibility, and I would agree. Bell High School's lack of technology, or access to technology, did not provide socioeconomically and technologically disadvantaged students with enough computer access and training. Instead, teachers like Mr. Jennings

and Ms. Reece took it upon themselves to fill in the gaps for these students, but the students had to put forth additional effort to access the technology within these teachers' classrooms and risked being labeled as students who lacked the means to acquire the newest technology in the process.

While my student participants did not comment on other students' lack of technology, they did notice that the school lacked the most up-to-date technology or at least blocked access to things they thought would be helpful. This seemed contradictory to Ms. Gladstone's and Ms. Reece's take on the school's level of available technology. Rosalyn thought the ban on cell phones was bad enough, but couldn't understand why she could not use an "iPad or something in class . . . to be able to take notes." Grant agreed, saying paper notes were hard to keep up with, but he had no problems keeping up with his phone, so he should be able to use it for note taking. Wynter had recently visited her brother's college psychology class and witnessed students using laptops, iPads, and tablet computers to take lecture notes. She questioned why a magnet school focused on college prep courses would not model the college experience. Cara even pointed out that other schools in the area provided their students with laptops to use for schoolwork. Francesca, who attended college classes off campus, found the freedom to use computers in these classes helped her. All of the students' comments illustrated how they did not always see the costs involved in providing such technologies or that allowing access caused problems, such as the blatant digital divide within Bell High's student population based on the diverse socioeconomic groups represented.

In her technology classes, Ms. Reece found it easy to identify the students who lacked technology because of their "noticeable" lack of skills. The first thing she usually

noticed was their lack of keyboarding skills—something usually taught in grade school, but that would definitely be continually reinforced by someone who constantly used a computer in the home. Next, she could tell when "they don't know hardware" or "how to actually make the hardware work," as evidenced when students do not know how to turn on a computer, how to connect a mouse, or hook up a keyboard. Finally, another difference she has noticed between those students who lack access to technology at home was their unfamiliarity with software. "All they know is the internet," Ms. Reece expressed, "They don't know how to do presentations" using software like Microsoft PowerPoint. As a veteran teacher committed to closing the digital divide, Ms. Reece worked one-on-one with students to help them catch up to the their more tech savvy peers. In her technology classes students were allowed to work at their own pace, and she set or extended deadlines to meet their skill level. Like Mr. Jennings, she also opened up her classroom, filled with computers and other technology, to students who did not have access to it at home. "I try to make myself available for them to come in and work whenever," she shared. Keeping her room and the lines of communication open to all her students, Ms. Reece worked to create a more equitable future for all of Bell High's students.

### Teaching and Learning in the Digital Age

The second broad theme uncovered through data analysis connected various ideas related to the tasks of teaching and learning using digital technology. In the interviews and focus groups, the participants not only spoke about the digital tools they used for personal gratification, but which of these tools had educational uses, how they expected digital technology to affect the future of education, and how they planned to keep up with

the ever-changing nature of the technology. Of the nine narratives found in this section, many of the voices belong to the teachers who have been challenged to integrate more and more technology into their classroom teaching. Ms. Reece and Mr. Jennings shared their experiences of trying to extend their teaching into digital spaces with mobile phones and web-based social media applications. The task of learning in the Digital Age was also particularly challenging to teachers, who often turned to their students for help learning digital tools, as seen in Ms. Gladstone's narrative. Surprisingly, the teacher-student relationship played a role in each teacher's story. Students' voices enter towards the end of the section as they related to issues of privacy and the effect of digital technology on the future of education.

*Teaching*

Teaching in the Digital Age came with both promises and challenges. Teachers tended to approach teaching in digital space in two ways: integrating digital technology into their traditional classroom teaching and/or extending classroom learning into the world of cyberspace (Light, 2011; Kist, 2009; Richardson, 2010). All three of my teacher participants spoke about using the internet, digital photos and video, Smartboards, clickers, and other technology in their classroom teaching, but Mr. Jennings and Ms. Reece had taken the next step of setting up a "virtual learning environment" in order to extend their teaching into digital space (Light, 2011, "Appropriate Behavior," para. 2). Light (2011) discussed how teachers used interaction digital spaces to sustain rich classroom discussions, collaboration, and strong classroom communities beyond the classroom. Both Mr. Jennings and Ms. Reece hoped to do the same with their digital classroom, as they expressed specific needs and desires they hoped to address by

extending their classrooms online. In the following narrative, Ms. Reece talked about her virtual classroom on the education social media site Edmodo, and her goals for extending her teaching online.

### *Ms. Reece's Digital Classroom*

*Preparing each day to teach in a computer class takes a different thought process. Not only do I have to prepare a lesson, what I'm going to teach them, but I have to make sure the equipment and everything else works. I have to make sure everyone "got it" and can do the assignment using the appropriate technology tools. I spend 10, maybe 20 hours a week outside of the school day preparing lessons, online assignments, and clicker tests. I'm always tweaking my lessons, upgrading them based on the new technology. I never want to get up in front of the students and not know what I'm talking about, but it takes time.*

*Recently I assigned my students job interview questions on Edmodo. I told them to imagine yourself sitting across from the person asking you these questions, and that they needed to impress them and communicate their skills in order to get the job that 20 other individuals had applied for. How are you going to outshine the others? So the kids answered the questions online and I took the time to read every answer and respond to them using on Edmodo. Sometimes we would go back and forth like that, and they loved it because it was social. It's good for the quiet kids, the ones who would never get up and talk in class, but now they can still communicate with me.*

Ms. Reece utilized Edmodo, a website she described as a "school based Facebook program," as an extension of her physical classroom. Using the web 2.0 application

Edmodo, students were able to access the site to complete class assignments, communicate with their teacher, and their peers. Trier (2007) believed that this type of digital classroom offered students the benefits of both "shifting" their learning to a time and place convenient to them ("Cool hunting," para. 5). This time and space shifting allowed students to established personalized learning environments anytime and anywhere. For teachers, this shifting could cause problems as they may be unavailable to students outside the hours of the typical school day. Although Edmodo seemed to create more work for Ms. Reece, she felt using Edmodo was worthwhile because of the engagement and enjoyment students experienced. Students tailored their identity on the site by selecting a representative image and the website offered a private, closed classroom community. Not only did students use the site to do homework, but they also communicated with each other, posting messages and announcements about activities inside and outside of school. As I viewed some of the students' Edmodo postings, I noticed that the personality and voices of the students were visible through their answers to the job interview questions Ms. Reece had posed. Ms. Reece agreed saying the website allowed her to see her students in a different light. "I get to see how they put things into words," she said in response to a young lady's interview answer. Other than teaching students the etiquette of job interviewing, Ms. Reece also used students' answers to teach "spelling, grammar, punctuation, . . . formatting," as well as the ability to tailor text to reach specific audiences—all skills she deemed necessary for success in the business world.

The time and care Ms. Reece placed into her digital classroom was demonstrated through her interactions with students and the level of engagement students showed in

response. Mihailidis and Heibert (2006) credited teacher-student interaction and student engagement with strengthening the teacher-student relationship, and this was clearly seen throughout the study. I was struck by the role that the teacher-student relationship played in both Ms. Reece's and Mr. Jennings' decision-making and use of their specific technology choice. This is once again demonstrated in the following narrative about Mr. Jennings and his decision to establish a discussion group using popular social media network Facebook.

***Mr. Jennings' Facebook group***

*I set up a Facebook group for my AP Physics class. My students needed a portal where we could communicate, so the Facebook page is a place where students can ask me questions about stuff they learned in class. I don't use it to post homework assignments—I give those out at the beginning of the year. No, it's more when they are doing their homework and they don't understand how a graph should look. They ask me on Facebook and I post a picture of how it should look. Of course, most of the kids are doing their homework the night before it's due and panicking because they don't know what they're doing. I also post links to interesting internet science articles I find.*

*I check the page pretty much every day, but I started using it more during the big snowstorm. I would assign the problems from their books on my Facebook page and on my class webpage. The kids didn't like it too much though; they complained because they thought they were on vacation. But I explained to them that we had to get caught up before the AP exam in May and that seemed to make a difference. Only about a quarter of the kids in the class have joined Facebook*

*group, but I've warned the rest that if we have another big snowstorm then they will be required to check the Facebook page for assignments. I figured making it a grade will get more kids to join the group.*

Like Ms. Reece, Mr. Jennings had also created an online extension of his physical classroom using Facebook. Mainly for the advanced science courses he taught, Mr. Jennings started utilizing the social media website for his classroom when he realized the power social media had to engage its users. With his science classes, Mr. Jennings used the site to support students' learning by helping them complete their homework assignments correctly. Mr. Jennings also posted articles related to the course so students could see real world application of course content. This was similar to ways that a teacher in Richardson (2010) used Facebook groups to support student learning through discussions, and how the math teacher Mr. K used blogging promote student collaboration and reflection in his classes (MacBride & Luehmann, 2008). In these cases, the teachers credited online interaction with building stronger bonds between the students and strengthening classroom community. While Mr. Jennings did not speak specifically to classroom community, he did feel that students using the Facebook group were more prepared for course assignments and tests in his advanced science classes. However, the Facebook group improved his relationships with students in the class.

Students could participate in the science class' Facebook group without accepting Mr. Jennings as a friend on his teacher profile, keeping his interactions with students in this space strictly academic. But many students also friended Mr. Jennings on his teacher account, and it appeared that these interactions were of more value to him. "My students like being able to talk to me on Facebook," Mr. Jennings shared, and said these Facebook

interactions prompted him to start a few on-campus student organizations to further connect with students. Mr. Jennings felt that Facebook and other social media sites allowed students "to see another side of you outside the classroom" and possibly "get a greater understanding" who you are as a teacher and as a person. This statement echoed opinions shared by a high school teacher in Carter, Foulger, and Ewbank (2008) who believed that Facebook strengthened her relationship with students by allowing her to "communicate with them beyond the four walls of the classroom" ("Professional life," para. 2). Since students prioritized Facebook's ability to provide social connections with others, Mr. Jennings was able to use these social media network to connect with students on a more personal level while maintaining his professional role as teacher.

Ms. Reece also relied on a digital tool that most students already possessed—mobile phones—to strengthen her relationships with students. Not many teachers I know would give out their phone number to students, but Ms. Reece believed in using her phone as a point of connection with students. While mobile phones were banned from most classrooms at Bell High, Ms. Reece felt it was her responsibility to use this digital tool to teach her students responsibility and communication skills, as well as strengthen her relationships with the students.

***Ms. Reece's Open Phone Zone***

> *As you can see there's a sign on my door warning students to put your cell phones away when you leave my class. I let my students use their phones in class. I've been to different professional development sessions and they say banning phones just makes students want to use them more. So in the first five minutes of class I let them take care of business before we get down to business. What I've*

*noticed is that if it's available to them, then they don't want to use them. I've had absolutely no problem with this policy in class, but I warn them—other teachers might not be so tolerant.*

*I let them use their phones because we use them in class to communicate. I have students add events and deadlines to their phone calendars, and I give every student my cell phone number. Now they're not allowed to call me though! Nope, don't call me—text me. I teach my students responsibility and communications skills. I tell them if you're going be out of school, then you need to let somebody know. School is like a job. You just can't decide not to go to work and not call in! You will lose your job that way. It's the same way with my class. If I miss class I let them know via text, tell them their assignment, and my expectations. That's one way I build rapport. I expect the same thing from them. My students text me and say I'm not coming to school today because of this or that. I've had a student text me and say "I had a wreck this morning. I'm okay, but I won't be able to make it to class." Texting allows me to know what's going on with my students and lets them know that I care about their lives.*

Ms. Reece taught business and technology classes at Bell High, so in some ways it was understandable that her classroom would be an open technology zone. But the ways she used mobile phones inside and outside the classroom surprised me. As in Martin (2006), where the college professor learned to instant message with students in order to meet students on their level of technology, Ms. Reece believed using digital communication formed stronger, more productive relationships with her students. She felt mobile phones could be a teaching tool and a way to demonstrate how much she cared

about their lives. She used her mobile phone as a living lesson, modeling appropriate business etiquette and ways to use communications technology to sustain relationships. Taking in these lessons, students learned life lessons applicable from today and in the future. Through her use of these digital tools, Ms. Reece served as an excellent example of what teaching and learning in the Digital Age could look like.

*Learning*

In the Digital Age, teaching and learning often go hand-in-hand, as the roles of the teacher and student sometimes flip-flop depending on who has expertise with the particular hardware or software being used (Henderson & Honan, 2008; McAnear, 2003; Prensky, 2010; Sánchez, 2007; Richardson, 2010). Many of these authors stressed that teachers not fear the role learner at the mercy of student teachers because while students may understand computers and other digital media technologies, teachers were experts in their content area. Teachers acted as facilitators in the Digital Age, guiding students towards greater understanding of course content with the help of learning activities and access to digital tools. Students still bore the responsibility to learn, hopefully with improved teacher-student interaction and classroom community. Most of my student participants did not speak about digital learning either because their school experiences did not include much work in digital classrooms or they seemed to be more focused on digital tools for personal use rather than school use. Therefore, many of the voices in the discussions of digital learning came from teachers as they learned to negotiate digital technology, as seen here in Ms. Gladstone's story of learning to use the social media network Twitter.

### *Ms. Gladstone Learns to Tweet and Retweet*

*When it comes to technology, I listen to the kids to see what they're doing. If the kids are using Twitter, then use it to communicate with them. I have my student council officers use it to get messages out and they get real quick responses that way. It's important to understand where they are coming from, what media they use, and then you'll know what media to use inside and outside the classroom.*

*My sister pushed me into setting up a Twitter account, but I never used it. That was before I realized what you could do with it. It was when I went to this activities conference in California that I learned about how to use it. It's really big out there. I was amazed how the teachers were using it—I don't think they could've done as much as they do without it. They were doing event reminders, assigning tasks, and homework. It was just so beyond what I knew. I learned so much in those 3 days—I can't wait to go back this spring. That's the thing, if you don't use it right away, you forget how.*

*Now that I've got my iPhone it's a little easier to do the school's Twitter accounts. We have 3 accounts: my personal Stu Co one, the Bell High one, and the athletics one. But sometimes I can't keep up, with remembering to posts things. Days, weeks even, go by and it's like "Ooops! I need to get something out there!" I run out of time.*

*I know it can be useful though, like the retweeting and that hashtag thing. This summer at our state student council meeting the kids did a skit all about*

*Twitter. They were like "Hashtag this" and "hashtag that" and I'm like, "Does anyone get this stuff?" The kids laughed, "Oh yeah, Ms. Gladstone!"*

*I guess it was really funny 'cause the kids showed me later what people were saying about the skit on Twitter. They showed me how you can search "#stuco" and everything people tweeted about the state conference came up. I couldn't believe it.*

*Twitter is a really good way to get feedback. I'm thinking of using it to do evaluations and planning for events. And the retweeting is a good way to pass the word to a whole class, even the whole school. A lot of our kids are using this stuff, so we might as well use it.*

Although she would describe herself as a digital newcomer, Ms. Gladstone had spent a lot of time using digital technology and had an almost insatiable hunger to join the digital era. Her classroom was equipped with three computer terminals and a Smartboard system, plus she owned an iPhone and two iPads. With all of these technological tools, Ms. Gladstone still struggled with the "how to's" of digital teaching and learning because of the lack of time available to learn to use the technology. Relying on her students and professional development, Ms. Gladstone worked hard to advance her knowledge.

*Professional Development and Personal Learning Networks*

All three teacher participants in the study relied on either professional development or some version of a community of practice to learn more digital teaching and learning. McIntosh (2009) and Richardson (2010) recommended turning to social media networks to seek advice, gather information, and learn what works from other

teaching professionals. Prensky (2010) called for teachers to partner with students who may be more familiar with digital technology to create classroom lessons and projects. Bell's teachers did both, drawing from family, friends, students, teachers, and other professionals to improve their knowledge or their teaching. As demonstrated in Ms. Gladstone's story, she turned to her students and professional development classes to learn to use new technology. A proponent of forming a technology-centered community of practice at Bell High, Ms. Gladstone included her fellow teachers, her students, family members, and her tech guru friend at the local Apple store to be a part of her personal learning network (Kist, 2009; Wenger, 2006). Her relationships with her students allowed her to be both the teacher and learner, as seen through the following brief narrative:

***Ms. Gladstone and the Trade-Off***

> *The other day one of my students, who is really good with computers, was in here working on something in Excel. He didn't know how to sort the spreadsheet by information in one column, but I showed him how to do it. Then I said, "Now that I've showed you how to do that, come to my computer and show me how to do this." That's what works for me—a trade off. Learning how to use digital technology is a trade-off between teachers and students. It works best when teachers work with students, students with teachers, teachers share with other teachers, and when students collaborate.*

The trade-off between teachers and students Ms. Gladstone described could be seen as the development of her own personal learning network. Often the members of her personal learning network were computer professionals, like Ms. Reece, Bell High's technology coordinator, and her teacher friend who worked at "the Apple store" in the

mall, but most were laymen technology users. Finding people to be willing members of her personal learning network seemed to be the challenging part for Ms. Gladstone. "You just have to find people who'll tell you how to do it," she said frankly, adding that she also needed someone to show her how to use the technology "several times." Using her students, teaching colleagues, and friends as technology resources in her personal learning network, Ms. Gladstone felt the only true obstacle in digital learning was time.

Mr. Jennings was very involved in many professional organizations related to the sciences and traveled across the country sharing his work. But when it came to implementing new classroom activities or ideas he turned on his teaching colleagues.

***Mr. Jennings' Personal Learning Network***

> *I'm connected to AP Physics teachers from around the world through the College Board's electronic discussion groups. It comes to my school email every day and I can see what everyone's talking about, share lessons, and even learn more about theory. If some interesting science story appears in the news, someone posts it and we'll discuss it from a physics standpoint. I'll admit that the discussion groups cleared up some misunderstandings I had about Einsteinian relativity, so now I can teach the concept with a little more clarity. We share a lot of information on there, especially lesson plans. I'm interested in this one project a teacher shared. Her students are creating class projects and sharing their work on the online video website Vimeo. Now I can't say I'm quite ready to do that, but eventually I want to give it a shot.*

Mr. Jennings relied most on his fellow AP Physics teachers, with whom he kept in contact online and through email, to provide ideas on how to integrate technology into his

lessons. He frequently took PowerPoint lessons shared by these teachers, tweaked them, and used them in his classes. Taking advantage of professional development opportunities was also important to him. In fact, it was in a professional development session on using Google Sites to create web pages and class groups that he first got the idea of creating a Facebook class discussion group. While he usually did not implement the technologically-shared ideas he learned about immediately, they did appear to change thoughts on his teaching practice.

Ms. Reece described the task of learning in the Digital Age as "constant and changing." She also relied on students' knowledge of software and hardware in her classroom and in her role as technology coordinator. In selecting students to help her fulfill her duties as on-site technology coordinator, she looked for young people who had a good relationship with her and were "tech savvy." These students would go out and fix computers, printers, Smartboards, and other technical issues within teachers' classrooms at both Bell middle and high schools. Describing the success of the program, Ms. Reece said:

> I've been fortunate that the students now helping me have basically volunteered the help. And I saw through how they did things in class that they would be an asset to me, and I choose those students who I know will have good rapport with other teachers as well.

In her classroom, she learned from the students as well, calling them "resources." Ms. Reece also frequently enrolled in professional development courses and attended conferences on technology to better her skills. Although her undergraduate degree was in business, the technologies being used at that time are no longer timely. "I was self-taught

or went to professional development trainings in order to get a little bit of knowledge of what I was supposed to be doing," Ms. Reece explained. She learned about the digital classroom program Edmodo in one of these professional development sessions. Ms. Reece saw the value of professional development in "people sharing information." She felt that the lessons from various workshops helped her avoid complacency in her teaching and showed her places where she could improve her practice.

*Challenges to Digital Teaching and Learning*

Both student and teacher participants shared some of their concerns over teaching and learning in the Digital Age. From the time it took to learn the new technology to issues over privacy, my research participants shared their feelings towards technology and its role in their lives.

*Time*

While technology had the potential to save time, the teachers felt the opposite was more often true. All of my teacher participants mentioned time as an obstacle for them in achieving their goals for a integrating more technology into their classrooms. This was a concern in the work of both Goodson, et. al. (2002) and Rogow (2004), who tried to understand the burden teachers faced in learning to use new technologies effectively. Neither offered effective solutions for restoring lost time, but knew any discussion of educational technology would involve more time than teachers typically had. In this story, Ms. Reece negotiated the boundary of losing time and saving time, but questioned which one was winning out.

***Ms. Reece on Lost Time***

*One of the most frustrating things about technology is that it changes so quickly. For teachers there is never enough time to just sit down and figure the ins and outs of a program. By the time you've done that, another version has been released. In my video production class, I've seen three different updates to our Adobe programs in the last four years. Each version is a little different. It's overwhelming sometimes, especially keeping up with the expectations of administration. They want us to use all the technology available, but who's going to teach us to use it? I know the professional development courses are available, but you either miss a day in the classroom teaching to attend workshops or they're offered outside of the school day which that cuts into family time. It's easy to see how teachers get so frustrated.*

Ms. Reece, who oversaw technological issues at Bell, observed a lot of the teachers' frustrations over technology and the time it took to learn how to use it. Teachers unfamiliar with computers and the internet often struggled at the school without the help of their colleagues. All attendance, grades, and discipline issues must be submitted and catalogued online at Bell High, and there was little time during the school year devoted to teaching the teachers how to use the programs to their fullest extent. Often the internet applications that held the grade book and attendance did not function properly or flaws in the design of these programs caused more work. For example, Ms. Gladstone was forced to take roll in two different programs one year because she has both middle and high school students together in a language class. Although a seemingly minor inconvenience, the frustration over it has lingered years later.

As teachers tried to add social media applications or digital classrooms to their curriculum, they also found that more time needed to be devoted to setting up and maintaining these programs. Mr. Jennings said he spent an extra hour each day managing his school Facebook account. Ms. Gladstone blamed her lack of time for not regularly updating the school's Twitter account. "It'll hit me and I'll do two or three days worth of stuff," she explained, "I don't have time or I'm thinking about it while I'm driving, and I'm going, okay, I can't do that right now!" Ms. Reece converted all of her paper tests to use the Smartboard and clickers, but believed it took an average of ten hours preparing for one clicker test. In some ways clicker tests proved their worth because they were graded instantly by the computer. Cara, a senior at Bell High, said she found clicker tests engaging and "more exciting" than the regular pencil and paper version, and she liked that the test results came back "quicker too." The line between losing time and saving time with technology remained blurry, and without specific guidance and time being set aside for learning and implementing technology integration in schools, things may remain much the same.

*Privacy and Teachers' Personal Lives*

Many teachers try to maintain a barrier between their personal and professional lives, but with the openness of internet and social media networks teachers and students may find it more difficult to preserve some level of online privacy (Alexander, 2011; Patterson & Wilkinson, 2011). The teacher participants demonstrated different ways of preserving a separation between lives inside and outside of school. The student participants did not speak about a personal desire to have online private lives nor did they express any fears over invasions of privacy by parents or strangers. However, they did

question teachers' notions of privacy as it related to social media sites, such as Facebook and Twitter. Some students even seemed offended that more teachers did not allow students as friends on the site. In one of the funnier moments of the student focus group Gabby, a high school senior, and her peers amazed me with their child-like questioning of how teachers lived outside of school.

***Gabby asks "Are Teachers are Real People?"***

> *I know a lot of teachers don't take students as friends on Facebook for privacy reasons. I think they feel like they're spying on their students, or that we'll "creep" on them. I admit I feel that way sometimes. Like what are they going to think of me when they see my Facebook page? I don't know why it's weird. Like when you see your teachers outside of school, like at the grocery store, it's still a surprise, Like Wow! They shop? They have a life? They are real people. It's the same thing online, on Facebook.*

While the students were still amazed when they saw their teachers at the mall, as high school students they were now old enough to understand that teachers did not live at school. But life in the Digital Age brought a new twist to this old story, as students and teachers now bumped into each other in the online world. Gabby, a Twitter and Facebook user, questioned whether the two groups meeting in social spaces online could bring up issues of privacy on both sides. Wynter agreed, but questioned whether she thought viewing teachers' "personal pictures" on Facebook would make students think less of them. Francesca stated that she had forgone writing messages on her teachers' Facebook pages because she feared "they might take it the wrong way." Francesca admitted checking out her teachers' social media pages because she wondered about their private

lives. “What do they do for fun?” she asked her peers, “Everyone kind of has to have a hobby or something.” Many of the students had some teachers as Facebook friends or Twitter followers, but none commented on having seen any of their teachers in an unfavorable light online.

Mr. Jennings kept his private and professional lives separate by keeping a separate Facebook account for his students. Similar to Fodeman and Monroe’s (2009) comments on online privacy, Mr. Jennings had a simple philosophy: “If it’s private, then you shouldn’t be putting it out there anyway.” Strangely many internet users do not seemed to understand that you cannot expect privacy online when you willingly place your personal information all out on the line. Both Mr. Jennings and Ms. Reece said they had devoted class time to discuss online behavior and notions of privacy with their students. Mr. Jennings wanted his students to understand that posting “stuff about parties or whatever” could affect their ability to get a job in the future because employers searched social media pages to check on potential employees’ attitudes and behaviors. Ms. Reece had invited college advisors and community business leaders to speak in her classes on the topic. One advisor from ITT Technical Institute informed the students to consider that their supposedly funny voicemail greetings “might turn some people off” and cause them to lose a potential job. In line with her class goals of teaching her students to effectively communicate, these media literacy lessons on life in the Digital Age gave her students an opportunity to find success in the business world.

As for keeping her private life private, Ms. Reece did not allow current students on her social media pages and tried her best to leave school at school—although her students were allowed to text her if they have questions or concerns. Ms. Gladstone

allowed all her current and past students on her Facebook and Twitter accounts, but she claimed "not to post a whole lot." Usually she shared photos from school functions because she knew her students wanted to see them. While she never had issues, she felt concerned over the negative approach that neighboring school districts had taken towards teachers using social media—where teachers had been told not to interact with students online. She worried that the technology was being blamed and teachers were being punished for "just one or two" people abusing it.

*Visions of the Digital Future*

Teachers and students tended to look at the future of school in the Digital Age with a mixture of wonderment and fear. The students I spoke with seemed to be waiting for something to happen that would change their school experience, while the teachers dreamed of a future of more responsibility to teach using new technologies and feared that they would have even less time to learn to use it. All of the visions involved more—more technology, more interaction, or more control—and all understood that this future grew nearer every day. Rosalyn, a junior at Bell, critiqued the schools' current policy restricting technology. Her vision of school included more technology because of the convenience it offered.

***Rosalyn's Vision of School***

> *I think the time is coming where schools are going to have to allow students to use their electronic devices. They won't have a choice. I think we need to be freer, more open with technology. I like listening to music when I'm reading or taking notes and we can't do that here. If I'm in class with my phone, I think it's my responsibility to use my time wisely. It's obvious if I'm sitting with*

*my phone texting that I'm not going to be able to finish my work, right? But that's on me. I think school would be so much easier if I had an iPad or some other kind of tablet with all my books on it. If I could take my iPad to class and write notes on it, then I would always have my notes. I could stay organized. iCloud stores everything that's on your iPhone, iPad, or Macbook. When I take notes on my phone, it shows up on all three of them. That would be amazing.*

All the technology in Rosalyn's vision of the future was available now, but she felt like Bell High School blocked her from having this dream educational experience. The students could see technology progressing quickly outside the walls of the school, but much slower inside the school walls. The only technological change Wynter mentioned within the school was the change from "the dry erase boards to the Smartboards." The students craved a more engaging educational experiences and envisioned school as place open to many forms of technology. Not only did they want to use the phones, laptops, tablets, Kindles, and Nooks, but they wanted school to prepare them for college and beyond by modeling ways these technologies could be used. This revealed that the students were aware of what Buckingham (2007) termed the gap between students' technological experiences at home and those at school, and wanted to fill the gap with technological solutions for the classroom. Students wanted the digital tools they frequently used in their personal and social lives to gain educational value in the classroom. They could describe educational uses for some of these tools, such as their mobile phones, and questioned how schools could ignore the importance these devices in their learning.

Teachers' future visions of school involved many of the same technologies, but with a bit more apprehension as to what it would all mean for education. Mr. Jennings wanted students to be prepared for college or work with his "adapt or die" approach, but he questioned how schools, in their current financial straits, could afford to get students to that level. "States all across the county are looking at going to the tablet PC's with textbooks," Mr. Jennings warned. While many teachers welcomed this change, Mr. Jennings saw schools adopting this technology "because it's cheaper" and because "textbook companies . . . can make more money off of it." He felt that tablets were inevitable, and it concerned him because he had read studies that showed "tablets are actually worse than books" and students had "a harder time reading them." Both Ms. Gladstone and Ms. Reece also saw tablets as a future educational reality, but both considered this as a positive change. "It makes it a lot easier [for] those students who don't have the technology at home," Ms. Reece shared, envisioning the digital divide closing if tablet computers replaced textbooks. Questioning what her role as the technology teacher would look like in the future, Ms. Reece could see her job transitioning towards teaching more about hardware than software. With that in mind she was also worried about teachers who were currently uncomfortable with technology: "I think the teachers who are not technology teachers are gonna have to really step up their game to maintain a decent level of relationships with students who are so tech savvy. That's where I see the change coming."

## Relationships and Connections

This research study not only explored how teachers and students used digital technology inside and outside of school, but also questioned what role the technology

played in the ways teachers and students interact. I found that relationships were very important to all the participants. As the research findings have already shown, teachers intentionally used digital media to engage students inside and outside the classroom, as well as, to extend the teacher-student relationship beyond the classroom. For students, creating and maintaining relationships was the main appeal of most digital technology, such as social media and mobile phones. So it was not surprising that relationships and connections formed the final broad umbrella topic in the data analysis. This section contains six narratives—three from students and three from teachers—covering how and why the participants chose to form online relationships; the value of these digital relationships; the effect of both positive and negative teacher-student relationships on learning; the importance of classroom community; and ways school-based relationships have been extended into digital spaces.

*Digital Relationships*

Most of the digital technology discussed in the research study, such as Facebook, Twitter, and mobile phones, were communications tools. The need to communicate and connect with others drives us and many of our recent technological advances. In this study, I found that students, being teenagers, looked to technology to fill their needs to be social and as a way to seek the approval of others. This aligned with Erikson (1968) and his psychosocial development theories where youth form relationships and test their ability to trust others. Today's youth have the ability to form relationships with thousands of people from different countries, cultures, and age groups, often entrusting total strangers with the details of their personal lives. Wondering how teens chose to form online relationships, I asked my student participants about this. In the following narrative,

Grant explained how he formed friendships on the popular social media site Facebook, and his thoughts on value of these relationships.

### *Grant and Our Mutual Friends*

*Let me check Facebook on my phone and see how many friends I have. Let's see, the grand total is 997! Shoot, I haven't hit the 1,000 mark yet! I guess I'm going to have to start creeping on more folks. I'm just kidding!*

*I haven't really been picky in the past, but I've started to ignore some of the friend requests I've received. There are some really creepy people out there. Like there was this guy who had my same name although his last name was spelled a little differently. He kept sending me friend requests with messages attached saying, "Hey, I think we're related." I mean, that's weird. I'm not accepting him. Sometimes you even get friend requests from people not wearing clothes. I definitely draw the line there. Usually what I look at when deciding whether to accept a friend request is the number of mutual friends we have in common. If I know the person, that's one thing, but if I don't know them and we have 50 mutual friends, then that's okay. I mean I must have something in common with this person if we have so many of the same friends. That just seems like a safer way to choose online friends to me.*

As seen in Grant's narrative, his high number of online friends demonstrated how students used social media to maintain social connections with others. Like the 800-page Dickensian novel of the same name, Grant's story and his method of choosing his online friends revealed a complex web of characters and his struggle to negotiate the practice of forming online relationships. In *Our Mutual Friend*, the central character John Harmon, was forced into a world of new people and experiences and had to discern the most

trustworthy people (Dickens, 2006). The vast number of characters and personalities found on social media offered many of the same challenges to Grant and his peers, as they must choose whether to form connections online and the safest ways to do so. Grant not only chose to engage in building online friendships, his story also showed that he sought out relationships and connections with more people than he typically would be friends with in the real world. His explanation of how he typically accepted his Facebook friends surprised me, but his peers typically agreed on this approach. Wynter also acknowledged looking at the number of mutual friends when deciding whether to accept a friend request. She "automatically decline[d]" creepy "old men" and "weird guys," but almost always accepted friend requests from any of the students at Bell Middle School or Bell High School since those people most likely knew of her. "Declining a friend request—it's like declining a friendship," Wynter poignantly stated. She did not want to shun any of her classmates on social media sites in fear of hurting anyone's feelings, especially younger kids who might look up to her. Her emotional response to accepting friend requests earned her 1,171 Facebook friends.

Rosalyn, who had over 1,000 friends, also relied on the mutual friend method, but extended her acceptance of friends beyond Bell to other area schools. "You end up knowing the majority of them," she explained, justifying her high number social media friendships. Hannah felt her role as a class officer rationalized her 1,078 Facebook friends since "basically everyone in the class is my friend." She also accepted just about everyone in order not to hurt anyone's feelings. Francesca had 1,145 Facebook friends at the time, while Gabby had 999 and was deleting more and more people with whom she had little contact. All admitted the impossibilities of trying to keep up with the lives of a

1,000 or more people on Facebook. This was one of the reasons Francesca preferred the social media site Twitter because it offered snippets of information about her friends in real time. Although all of the students rejected the idea of that building these social media relationships was a type of obsession, they still felt the need to stay connected with their peers online.

Cara was the only student with a more manageable Facebook friend list. With her 320 friends, Grant somewhat envied her leaner Facebook account that "probably doesn't have any predators." Cara had built a "selective" philosophy on choosing friends after observing her friends' crazed behavior with the social media:

***Cara wants Real Friends***

> *I set up my Facebook account a lot later than most of my friends. So when I finally joined, I didn't try to go out and find as many friends as I could. I just waited for people to friend me. If I received a friend request and I don't know the person that well or I've never met them, then I won't accept their request. Why would I? It isn't like we're going to have anything in common. Why would I be interested in their what's going on the life of a stranger? Having thousands of friends on Facebook would just be annoying because you couldn't keep up with your real friends that way.*

Cara's decision to limit her interactions on her social media pages demonstrated restraint and the desire to maintain and nurture the relationships she had already established in the real world. She had observed her friends' obsessive behavior with social media relationship, and then chose a different path. Cara admitting checking out Facebook

accounts of casual acquaintances and people she had just met, but rarely added these people as online friends.

The teachers I spoke to at Bell High typically limited their friends on their personal Facebook accounts. The exception was Mr. Jennings, who used his personal account to keep in touch with his "professional contacts" with the various science and education groups he worked with over the years. Many of these friends lived outside the United States, and Facebook allowed him to stay connected with these colleagues. While his personal account boasted more than 1,000 friends, his teaching account, the one he used for connections with his students and Bell teacher colleagues, had less than 200 friends. Both Ms. Gladstone and Ms. Reece had less than 400 friends on their Facebook accounts. "I don't go out and ask people to be my friends," Ms. Gladstone shared, saying that her Facebook friends were mostly made up of current and former students, as well as some family members, friends, and teacher colleagues. Ms. Gladstone used her Facebook account to communicate, connect, and relate to her students over both academic and social posts. Ms. Reece's Facebook friend list was made up of "co-workers and acquaintances" and she used the site more for socializing rather than building and maintaining student relationships. As seen here, the teachers at Bell used other digital tools and classroom approaches to build and maintain positive relationships with students.

*Teacher-Student Relationships*

Beutel (2010) found that the teacher-student relationship was one of the most important relationships in the lives of young people. Students and teachers shared an emotional, care-filled bond that could affect a student's ability to learn (Beutel, 2010;

Doherty & Mayer, 2003; Noddings, 1986). As seen throughout this chapter, the teacher participants highly valued the teacher-student relationship as an essential part of their pedagogy and based many of their decision about technology use on their relationships and connections with students. Both students and teachers told stories about past and present teacher-student relationships and the affect these relationships had on their educational experiences. For Mr. Jennings, a poor relationship with a former teacher became a catalyst to join the profession. All the teachers in this study said that having a positive relationship with students was an essential part of their pedagogy, and I observed different ways that connection stretched from the classroom into digital spaces. For students in the study, they were concerned about gaining their teachers' approval and spoke honorably about teachers who were willing to spend extra time with them. In the following narrative, Francesca shared a particularly troubling situation she faced with a former teacher and the affect the negative relationship had on her:

***Francesca's Struggle with Trigonometry class***

*Last year I had a really difficult time in trig. I just didn't understand it, you know. And the teacher, well the teacher, he wasn't helpful at all. He told me that I was going nowhere in life because I didn't understand trigonometry! I mean who says that! It definitely didn't help. It's important that your teachers care about you and want you to well in their class. It's sad, but not all teachers feel that way. I couldn't believe he said that to me. It made me wonder if he would say that to his own children. Did he tell them they were going nowhere in life? That's one of the reason I checked out his Facebook page because I was curious about*

*how he treats his friends, his family. After what he said to me—it still hurts, you know.*

What happened to Francesca should never happen to any student, and while teachers are human beings, often driven by emotions, their duty remains to build up students as well as educate them. Francesca's story broke my heart and I was surprised that a teaching colleague at Bell High would ever say these hurtful things to a student. Even more disturbing was that other students reported similar experiences with teachers at Bell High School. Wynter was having troubles in the same class and said the teacher had accused the class of not working hard enough to master the course material. "I'm taking three or four other advanced classes," Wynter responded defensively, "so who are you to say I don't push myself because I don't understand this subject." Hannah, who was struggling in a science course, claimed the teacher called her stupid just about every day, although in a joking manner. "If you weren't that person, the one person who got it immediately" the teacher would tease you, Hannah explained. This caused Hannah to shut down in class. "You're supposed to ask questions in class, but . . . I would never ask anything," she said, after being taunted by the teacher. While in the class Hannah felt as if the teacher simply did not like her, but now that she was no longer in the course the teacher was nice to her, even greeting her in the school hallways. Even so, Hannah, like Francesca, remained bitter about the experience. It was clear these negative relationships affected their beliefs about their own learning potential, and it pained me to think that they would carry these words throughout their lives.

The words and actions teachers directed at students had lasting consequences, and the nature and importance of teacher-student relationships could affect students' ability to

learn. In Hannah's opinion: "If your teacher doesn't like you and you don't like your teacher, you're not gonna try in the class." As adults, this attitude may seem immature, but high school teachers are rarely in the business of educating adults. In the eyes of my student participants, they expected teachers to show that they cared for them before they would respond in kind by completing their school work. Both Cara and Wynter mentioned having or showing "respect" for teachers, but they both wanted the same thing in return. For Cara, this mutual respect stemmed from teachers demonstrating "the time they put in" for "preparing lessons," or tutoring before or after school. "Knowing that they are there for the right reasons . . . it motivates me to learn and actually try," Cara shared. This confirms what Mihailidis and Heibert (2006) stated about mutuality between teachers and students being the foundation on which teacher-student engagement was built. Both words and actions affected how students judged the quality of a teacher-student relationship.

When I asked the students about their online social media relationships with teachers, they could not connect these relationships to their greater educational experiences. "I don't think it really affects it," Francesca frankly stated. She had been Facebook friends with her drama teacher for four years and commented on how helpful the teacher's posts were to being prepared for class or planning for play rehearsals, but in her eyes this teacher was just one of a thousand online friends vying for her attention. Wynter was Facebook friends with her former Bell Middle School English teacher and did not see anything out of the ordinary about their online relationship. What she did find usual was that "most teachers say they won't accept friend requests until graduation." The students questioned teachers' reasons for rejecting student friend requests. "I think

they're afraid we're gonna think they're creepy," Grant commented. This possible breach of privacy caused the students to feel a bit uncomfortable with forming online relationships with teachers, but most admitted to curiously seeking out their teachers online, at least to view photos of their families, friends, hobbies, or other intriguing information.

Not surprising, the teacher participants highly valued the teacher-student relationship, and all shared ways they formed and maintained these relationships inside and outside the classroom. Many of the teacher participants thought back to their secondary or college experiences and reminisced during the interviews. Mr. Jennings' story of why he chose teaching reminded me once again of the power of the teacher-student relationship.

### *Mr. Jennings' Journey into Teaching*

> *I had several pointless teachers growing up, in fact one in particular hated me with a passion. I liked my science classes of course, but this one English teacher held a grudge against me. She was a preacher's wife and I felt like she was ostracizing me because of my religious beliefs. You see I got a D on my final research paper my junior year. It was a passing grade, but I had done all the research, included all the facts, and met all the requirements—I deserved a better grade. My brother, on the other hand, got an A on his research paper, but not because his was better. In his paper he had "Praise God" this and "Praise God" that! I couldn't believe she'd given him a better grade when I knew I had done more work and research. That's how I knew she didn't like me!*

*It's teachers like that that made me want to be a teacher because I knew I could be better than that—treat my students fairly. That's why I try to make myself accessible to my students, whether it's helping them with assignments before or after school or on Facebook. Without having some kind of relationship with the students I don't think learning is possible. Facebook and social media may help you build that relationship depending on how you post things. Either your students can students can see you as some raving lunatic or as a human being, but at least they get to see another side of you outside the classroom. I feel that I'm not much different online as I am in class. My rants and raves may make my students laugh, but that's just who I am. Hopefully my students can see that about me.*

Mr. Jennings' story of trying to overcome the effects of a negative teacher-student relationship he experienced mirrored some of the student participants' stories. While many years had passed, he still remembered how it felt it be seemingly rejected by a teacher. Looking back, the experience has helped him form his own pedagogy and teaching practices. Also of interest in his story was the way he used online social media to maintain the relationships and connections he built with students in his class. He felt that social media's place in students' lives gave him the opportunity to be both friend and teacher within online spaces.

Ms. Reece also used digital technology to build and maintain relationships with her students, but she believed that relationship started at her classroom door. "I think rapport is probably the most important thing a teacher can do," she shared. She built rapport every day by calling each student "by name and greeting them" at her door.

Several times during the school day, Ms. Reece stopped to talk to individual students, asking them if they needed help with class assignments, as well as, sharing her own "personal experiences with the students." "I don't get real deep into it," she mused, "but they get a sense of they know a little bit about me, about my family, about my kids, about what I do outside of school." Ms. Reece felt that most of her students held a generally positive relationship with her because of her personable nature. Throughout this report Ms. Reece demonstrated the different ways she extended this relationship into digital spaces, such as encouraging students to text her with personal or school issues and communicating with them online via the educational social media site Edmodo. Ms. Reece also had a program on her iPad where she could monitor what students were doing on the classroom computers when she was away from school.

***Ms. Reece plays I-Spy with the iPad***

> *I was in St. Louis at educational technology workshop and I decided to see who was working and what they were doing on what on the class computers. It's funny because the conference was called Get Connected, teaching you how to use Twitter, Facebook, LinkedIn, and all those types of programs. So I went into my NetSupport program on my iPad and I started chatting with the kids, letting them know that their assignments were still due and that I could see whether or not they were working. The kids were like "Ohh, Ms. Reece, this is spooky!"*

The availability of such technology allowed Ms. Reece to remain connected to her students inside and outside the classroom, and her willingness to employ the technology

in this way demonstrated her commitment to her students' learning and their ongoing positive relationship.

*Classroom Community*

Ms. Gladstone, who came from "a family of teachers," also believed that building relationships and rapport were essential to students' school experiences, but she felt that extended beyond just her relationship with the students to the peer-to-peer interactions and relationship within the classroom. To strengthen these relationships, Ms. Gladstone employed different activities that built classroom community. Sánchez (2007) called classroom community a space where teachers and students learn through speaking, listening, and interacting with each other. Peer interaction, collaboration, and collective intelligence were considered essential parts of 21st century literacy skills (Berger, 2010: Jenkins, 2009). Using her Smartboard, mobile phones, and other classroom activities involving little or no technology, Ms. Gladstone's teaching fostered the collaborative learning skills. In this short narrative, Ms. Gladstone described one way she built classroom community and why peer relationships played an important role in her pedagogy:

***Ms. Gladstone builds a Community***

*Sometimes you have those classes where none of the students know each other or they only know the kids in their little clique or group. I'll ask kids to hand back papers and they don't know their classmates' names. Sometimes this can go on all year long. So what I usually do is break them up into smaller groups and have them work on projects. I think that helps build rapport, having them do stuff together. Then if they're passing out papers and they don't know*

*each other, they have to introduce themselves. I refuse to let them go through the year without forming those connections. I think those connections are so important.*

*I think that's why the kids use Twitter, for those connections. And that's why I follow them—to help build rapport. I can see what the kids are up to, what they need, what works with them.*

Through these small group activities, Ms. Gladstone helped students to interact and form a closer community by removing them from the comfort zone of their friends. Ms. Gladstone also saw these classroom communities migrating online through the students' use of social media sites like Facebook and Twitter. "It's been hysterical," she said watching the students push each other to get their work done and "suggesting bizarre penalties" on Facebook for those who procrastinated. Ms. Gladstone seemed encouraged by the ways her students used technology to help each other inside and outside the classroom. In some ways, Ms. Gladstone's classroom community mirrored the results from studies done in online college courses that showed the importance of peer interaction and collaboration and how it linked to student success (Chang & Smith, 2008; Waltonen-Moore, et. al., 2006). These studies demonstrated how successful learning hinged on not only mastering content, but also on relationships with both teachers and student peers. Sustaining strong classroom communities and teacher-student relationships in cyberspace could ensure the success of classroom community digital learning endeavors.

## Summary

This chapter reintroduced the participants and methodology before exploring the findings of the narrative inquiry teacher research project. The three broad umbrella topics—Utilizing Digital Technology, Teaching and Learning in the Digital Age, and Relationships and Connections—held a multitude of subthemes that illustrated and explored the participants' narratives and words. In the next chapter, I will further analyze the data, revisit the research questions in order to reveal any answers offered by the study's findings, explore the implications of the study on current educational issues, and offer suggestions for further research into the topic of digital learning and relationships.

# CHAPTER V

## CONCLUSIONS

*Once again the threat of snow returned and the students of Bell High were excited for the possibilty of snow days. The mild winter lacked the punch of previous years and all the season could muster was a minor two inches of powder that barely covered the grass. Surprisingly, school was cancelled and my World History students were ecstatic because the snow day afforded them a one-day reprieve from a hefty unit exam.*

*Alongside my school Facebook account and personal Twitter feed, I had added the educational social media application Schoology as my extended online classroom. Students participated in online discussions of class topics, turned in assignments, accessed study guides, and could send me questions about the course content or their grades. The application is available online, and on iPhone, iPad, and Android mobile devices, so students could access it just about anywhere, at any time. Even with this cool new application, my student still prepared to contact me through my personal Twitter account. I'll confess that most of my tweets are mundane, but around one-quarter of my "friends" on the site were my students.*

*Even before the first snowflake fell, two students messaged me on Twitter requesting that I cancel their test because of the possibility of snow. The excitement of the*

*impending storm somehow caused them to forget that they needed to study, and they would do soooo much better if we simply put it off a few more days. Really? I was shocked at their audacity to ask such a request. Soon they had added invited other classmates to join in on our discussion in the hopes of pressuring me to back down. Through some awkward attempt at cyberbullying, my students ganged up on me, jokingly calling me a Nazi and a tyrant. At least they were using their history vocabulary words, right?*

*In the end, they won their one-day pardon, and I was left wondering if our silly, but heated online exchange was a symptom of a broken classroom management or a symbol of our close teacher-student relationship. Would my student have launched their cyber attack on the class discussion boards on Schoology or was their playful banter reserved for popular social media where I was just one of their hundreds of friends?*

## Digging Deeper

The purpose of this qualitative teacher research study was to investigate ways teachers and students used digital technology for learning and building relationships inside and outside the classroom. Employing the method of narrative inquiry, I uncovered three broad themes with several subthemes related to teachers' and students' experiences with digital media, digital learning, and classroom and digitally mediated relationships. While the words and stories of the participants spoke for themselves, I felt a deeper look into the data was the necessary before I could draw any conclusions or answer my research questions. In this deeper, reflective look into my themes and sub-themes, I searched for multiple and conflicting voices, comparable literature, and a greater understanding of teachers and students digital lives.

## Relationships and Dis/Connections

The main question driving this research study was "How do secondary teachers and students make connection during digital online media?" In searching for these connections, it was inevitable that I would find some disconnections between the two groups. While both teachers and students felt the need to create and maintain relationships, the groups differed in their choice of whom they preferred to form these relationships, as well as the specific technologies or media applications they employed to sustain these relationships. For example, Francesca, Ms. Gladstone, Gabby, Grant, and Hannah all utilized the online social media network Twitter. As you may recall, Hannah had to check it before getting out of bed in the morning and Francesca used it to keep tabs on her friends during the day. Both of these students used social media for personal benefit, while Ms. Gladstone tweeted in order to communicate about school events. Her personal Twitter account served a professional use. This disconnection between how and why teachers and students used social media and other digital tools recurred throughout the study. In order to explore this further I turned to current research on the mass media communications theory of Uses and Gratifications.

Uses and gratifications was first proposed by Elihu Katz in 1959 as he challenged the media researchers of the day to consider "what people do with media" (Dunne, Lawlor, & Rowley, 2010). Research into uses and gratifications of media consumers has traditionally focused on the types of media choices available to users, the user's needs and expectations associated with different media types, and the outcomes or gratifications available from the media (Katz, Blumler, & Gurevitch, 1974). Current research linking teens' media choices and the theory of uses and gratifications has explored both social

media networks (Dunne, Lawlor, & Rowley, 2010) and mobile phones (Grant & Donohoe, 2007). These studies showed that social media networks gratified teenagers' needs to communicate, form relationships with others, find out information, be entertained, escape from life, and create new identities (Dunne, Lawlor, & Rowley). Park, Kee, and Valenzuela (2009) found that the younger people tended to rely on social media networks to maintain communications with peers in order to fit in with their friends. Mobile phones were used for many of the same reasons, such as entertainment, socializing, and escapism, but the devices also were a way for teenagers to seek advice about school or life issues (Grant & Donohoe, 2007). These studies aligned with the students' voices in my research and confirmed some of the reasons I believed the students had trouble connecting their digital lives to their educational experiences.

The idea that youth intentionally used media to escape from school conflicted with teachers' desire to integrate social media networks and mobile phones into school curriculum. In my research, it seemed like all three teachers were aware of this at some level as they placed the teacher-student relationship—the social-emotional bond that connected the two groups—at the heart of their endeavors to connect with students online. The creation of Mr. Jennings' Facebook discussion group and Ms. Reece's conversational interviews on Edmodo appealed to students' social nature. Blending youths' social needs with academic endeavors, the digital interactions engaged students by extending the teacher-student relationship beyond the walls of the school. Their relationship became a thread capable of stitching together the "widening gap" that students experienced between their experiences at school and their experiences outside the classroom (Buckingham, 2007, p. 193). Teachers should consider to students'

expected uses and gratifications when choosing what digital media tool to employ as an extended digital classroom.

## Digital Learning—There's a Time and Place for That

The students' expected uses and gratifications could partially explain another trend found in my research—the separation of digital learning spaces from classroom teaching and learning. In the study, Ms. Reece tried to break this time and space barrier by allowing her students use their mobile phones in class, but most of the interviews and stories described the *enclosure* of digital learning spaces. Just as in a regular classroom, teachers in the study chose the media and method of digital learning (often looking to their students for clues or advice), while the students were to left to choose their level of engagement with the media, the teacher, and their peers (Doherty & Mayer, 2003; Mihailidis & Heibert, 2006). The students felt their media choices within school were limited by the district's rules and regulations. This was clearly seen in Rosalyn's narrative describing her vision of school where she wished for a learning space where she could use an iPhone, iPad, and laptop in tandem. *Enclosure* could also be seen across the country in school districts' ban mobile phones and in discouraging teachers from interacting with students online (District Code of Conduct; Ewbank, Foulger, & Carter, 2010; Schworm, 2010). *Enclosure* of digital learning spaces from the normal business of school resulted in a disconnect for students as they failed to see the link between the digital technologies available for educational use and "technologies for leisure activities" (Henderson & Honen, 2008, p. 92).

*Enclosure* describes creating a special, bounded space or category in order to surveil or control the activities of a group within a society or institution (Foucault, 1975).

I questioned if the bans on mobile phones and other communications devices in the classroom and the overall lack of technology in schools was an attempt by societal power structures to control the delivery and scope of teaching and learning within the classroom. Teachers cautiously crossed these digital boundaries, and students accepted this form of control by separating their desire for media from their educational needs. With over two billion Google searches completed each day, there was no question that humanity's desire to seek information remained insatiable, but school rules banned, blocked, or controlled students' means of satisfying their natural curiosity. Changes in policy and extensive funding of public education are needed to break down the walls separating classroom teaching from digital learning.

**Wading through the Digital Divide**

The teacher-student relationship played a central role in the care teachers exhibited towards economically disadvantaged students. Both Mr. Jennings and Ms. Reece opened up their classroom before, during, and after school for students to access computers and other technology not available them otherwise. In his "Adapt or Die" story, Mr. Jennings pleaded his case for increased funding for technology and training for teachers as way to equip students with the skills necessary to compete in today's increasingly digital world. Issues of race and class within the digital divide were not lost on Ms. Reece, a Black educator whose minority status within the overwhelmingly White faculty of Bell High School drew some Black students to her open classroom in the mornings in order to access the computers. Even I have faced this challenge at Bell High, especially this year as I created an online extended classroom and found many of my students lacked the technology at home to complete online discussions and assignments. I

was fortunate to have a few computers in my classrooms, and I found I had to provide time for students to work on the online assignments during class time.

This was one reason why Cara wondered why Bell did not provide laptops for students, like some of the other private and charter schools in the area. It is no secret that there is a relationship between the amount of money invested in American schools, the socioeconomic status of its students, and the school's level of achievement (Filardo, Vincent, Sung, & Stein, 2006). Without investing in school technology improvements the digital divide between will widen and continue the cycle of social inequities. Jenkins (2008; 2009) warned that this widening gap prevented those lacking technology from participating in the more collaborative, democratic culture of new media, which could be the very vehicle capable of giving voice to these groups. This once again demonstrated that power and equity issues were inherently tied to educational technology policies and funding.

**On Time**

A lack of time echoed through the teacher participants' voices in the study, and manifested itself as an overwhelming frustration with the current climate of teaching. Teacher participants felt that time was a rationed commodity, dutifully managed and doled out in small increments by the structure of the seven period school day and the powers that be in administration. Such a precious commodity, the teachers saw administrations as squandering time by pushing down unfunded mandates or other responsibilities onto teachers who already suffered under the many other burdens of the education system. This could especially be seen in the frustration Mr. Jennings' expressed in his "Adapt or Die" speech. Ms. Reece's story on lost time showed how

technology ate away at time because teachers had to learn to use and find ways to adapt it to their classroom. Smartboards, clicker tests, online discussion groups, and educational social media sites were meant to save time, but teachers questioned technology's time-saving capabilities since it required much more planning time than traditional classroom activities.

At Bell High, teachers did not have a choice whether they wanted to integrate technology into their day because they were required to use the internet to take roll, enter grades, and maintain a website. Ms. Reece saw how much this frustrated teachers in older veteran teachers. The teacher participants thought that more money for technology and more time for professional development could be the solution to relieve their frustration, but they questioned whether either of these was possible in the current teaching climate. Ms. Gladstone and Ms. Reece took time from their classroom teaching and families to attend professional development conferences or classes—in a sense, robbing Peter to pay Paul. They felt this was the required price to pay to stay current and keep in touch the technologies their students' valued in their lives. Again, the value of the teacher-student relationship directed their need to include relevancy and technology in their pedagogy.

## Searching for Media Literacy

A foundational concept driving this research study, media literacy advocates for educating both students and teachers about the effects of media on our daily lives and how to respond to these media effects. A move in education to equip students, parents, and teachers with the skills to utilize, understand, and produce media in many forms, media literacy teaches questioning and critical thinking skills alongside technology use (Thoman & Jolls, 2005). While I never used the term media literacy in my conversations

with the participants in an attempt not to poison the research well, many of the teachers' and students' responses included observations related to the topic. For example, Mr. Jennings and Ms. Reece spoke to their desire to make sure students understood how their online comments and photos could affect their ability to get a job. Teaching these life skills lesson aligned with one of the key concepts of media literacy—"Different people experience the same media message differently" (Center for Media Literacy, 2011). While students may see their online comments or photographs as humorous, others may see them as offensive, illustrating that the same media message could be perceived differently by different audiences. Teachers may not have know the term media literacy or intentionally taught it in their classes, but their advice and interactions with students inside the classroom and online sometimes demonstrated media literacy lessons.

A few of the student narratives also revealed elements of media literacy. In Wynter's brief narrative showing the way she questioned the purpose of seeking online friendships, she exhibited the higher-level critical thinking skills media literacy educators hoped to instill in students. Not only did she question the media's message, but she altered her online behaviors. Both Cara and Gabby also displayed media literacy skills in the online behaviors when it came to accepting, maintaining, and rejecting online relationships. While I believed the students' maturity level and their relationships with teachers, parents, and peers helped them develop good online behaviors, receiving formal media literacy education would help many more students make better decisions in the ways they use media. Of course to teach media literacy skills teachers must first become media literate themselves (Rogow, 2004). In the current educational climate of lost time, less funding, and other top-down mandates, media literacy education has been placed on

the back burner. It was my hope that this research project would prompt educational policy makers to make it more of a priority.

## Teacher Research: Answering the Research Questions

In this qualitative teacher research study, Bell High School served as a model for current, nationwide concerns over digital literacy, digital learning tools, and online teacher-student relationships. Using interviews, focus groups, and the method of narrative inquiry, I studied the digital and classroom interactions of Bell High School's teachers and students in order to understand how both groups perceived their media use and interactions, and to help them better communicate in this increasingly media saturated age. There were three research questions formulating this study, and as I come to the end of my research I will attempt to answer these questions based on the research findings. It should also be understood that interpretive studies are open to multiple perspectives, and qualitative research only attempts to provide one understanding of what may be a multi-faceted phenomena.

*RQ1: How do secondary teachers and students make connections using digital online media?*

Bell High School's teachers and students utilized a variety of digital media technologies to connect in the classroom and online. Mr. Jennings and Ms. Gladstone described using internet and teacher-created video to support their classroom lessons. Ms. Reece, a business and technology teacher, used an online software application called NetSupport to monitor students' work in the classroom, even when she was not physically there. The most effective connections between teachers and student using digital online media occurred outside the classroom. Mobile phones and online social

media networks allowed teachers and students to connect across time and space. Ms. Reece employed mobile phones to connect with students, asking them to text her if they were going to miss class or had questions in simulate employer-employee communication skills and to show she cared about their lives outside school.

These connections outside of school used both educational and popular online social media networks. Ms. Reece established an online digital learning space through the educational social media site Edmodo where students could communicate with each other, as well as complete assignments. Since she taught in a computer classroom, students could access the site while at school or on their own time. Ms. Gladstone and Mr. Jennings opted to connect with students using the popular social media networks Twitter and Facebook. Both looked to students for their opinions before choosing these sites as online extension of their classroom. As activities director at Bell High School, Ms. Gladstone relied on Twitter to communicate with students about planning upcoming events. Setting up Facebook discussion groups, Mr. Jennings posted links to articles and homework assistance on his class social media page. The online connections outside the classroom extended learning, communication, and the teacher-student relationship beyond the physical boundaries of the school.

*RQ2: How do secondary teachers integrate digital technology into curriculum and pedagogy and for what purpose?*

The findings revealed that the secondary teachers in this study prized the teacher-student relationship and student engagement as a part of their pedagogy. Teachers intentionally sought out relevant digital technologies that would engage students inside and outside the classroom. The inclusion of internet video, educational social media,

PowerPoint presentations, computers, interactive white boards, and clicker student response systems into classroom instruction all demonstrated this fact. Although teachers' lack of time was a major drawback to the integration of digital technology, teachers supported it because they felt it aided students' ability to pay attention in class and improved their learning. Cara, a senior at Bell, confirmed Smartboards and clickers made school more exciting and engaging. Ms. Reece continued to use Edmodo because the students enjoyed the social nature of the site so much. Appealing to the social side of students, teachers placed the teacher-student relationship at the center of many decisions on digital learning technologies, as shown in Ms. Reece's narrative of her open phone zone.

Teachers also integrated digital technology into their classroom teaching in order to prepare students with necessary life, technology, and digital literacy skills. Although some literature and the district code of conduct labeled mobile phones as disruptive, Ms. Reece chose to defy school rules into order to show students responsible ways to use the technology. Both Ms. Reece and Mr. Jennings were concerned over the widening digital divide. Many of Bell's student lacked computer technology at home and teachers feared the school's failure in equipping these youth with the technology skills they would need to succeed in life. All three teachers had at least one computer in the classroom primarily for student access.

Also of interest in this study was how teachers learned about new technologies and how to use them. The data indicated that teachers relied professional development technology training and varying forms of personal learning networks. All three teachers spoke of professional development classes as a way to learn about technology. Both Ms.

Gladstone and Mr. Jennings were first introduced to social media networks as educational technologies through professional development classes. The teachers' stories also demonstrated their use of personal learning networks. These loosely formed, technology-focused groups included teacher colleagues, family members, computer professionals, and students. Mr. Jennings networked with teachers in many different countries through electronic discussion groups established by the College Board, while Ms. Gladstone relied on help from a friend who worked at the local Apple computer store. As Bell High's technology coordinator, Ms. Reece considered her students as some of her best technology "resources." She recruited students to help her with the job of maintaining the computers, Smartboards, and other digital resources in the school.

*RQ3: What distinctions and commonalities do these digital teacher-student relationships hold?*

Evidence showed that the teacher-student relationship began in secondary classrooms and then extended into digital spaces. The teachers in the study expressed the importance of positive teacher-student relationships as essential to classroom learning. The students also shared their desires for teachers who cared about them personally and were willing to spend the necessary time to help them in their learning. The results showed that teachers intentionally employed digital technologies, such as mobile phones and social media, to further engage students in the learning process beyond the time and space boundaries of school. With the extension of the learning space, teachers' relationships and connections with students also crossed those boundaries. Teachers felt digital availability would increase student learning and engagement inside the classroom.

Digital teacher-student relationships shared many commonalities with classroom relationships. The care expressed in the relationships was the same, as well as the teachers' focus on building and improving learning skills. It also appeared that the power structure of the classroom, where teachers determined content and methods of learning, transferred into digital learning spaces. In my brief glimpse into Ms. Reece's Edmodo classroom, students' used the site to answer questions posed by the teacher. Student initiated postings on the social media website were social in nature, and not educational. This was one of the main distinctions in digital teacher-student relationships. Students conveyed a mixture of curiosity and fear when it came to socializing with teachers in digital spaces. Teachers also seemed uncomfortable with the social aspect of social media when it came to students. Ms. Gladstone let her students know that her use of Twitter and Facebook were educational and informational, and their teacher-student relationship was not to be mistaken as a friendship. Mr. Jennings, on the other hand, did allow students to exchange personal/social comments on his Facebook account, but he kept his students on his "teaching account" not his "personal account." Overall, teachers and students struggled to negotiate the boundaries surrounding teachers' private and professional lives.

## Reflection and Action

Cochran-Smith and Lytle (1993) called on teacher researchers to become both decision makers in the own classrooms and curriculum theorizers with their research. In keeping with the purpose of this teacher research study, I asked myself how the answers to my research questions altered my own perceptions and practices of teaching and learning in the Digital Age. In a broader sense, I was also concerned about how this research study could influence school district policies towards digital learning tools and

rules governing the interactions of teachers and students online. This research also offered extensions to existing body of knowledge on media literacy, media uses and gratifications, and communities of practice. I have also included recommendations for future research on teaching and learning in digital spaces.

*Implications on Practice*

This research project has had a profound effect on the way I have approached integrating of digital technology in my own teaching practice, and the ways that relate to students both in the classroom and online. Before I began this research study, I considered the teacher-student relationship a small element of my pedagogy being more concerned with students' life skills, future world citizenship, and mastery of content knowledge. Through this project I realized how important positive relationships were to my students and how much that relationship played a role in their learning. As Francesca, a senior at Bell High, shared with me, "It helps when you know your teacher cares about you and your grade." Speaking with Bell's students and veteran teachers made me see the power of care inside and outside the classroom. The methods the teachers used to extend the teacher-student relationship into digital learning and social spaces provided a new framework of how to approach my own online classroom. Digital learning was not simply about content, skills, and media literacy. Learning in digital spaces meant making one's self available to students beyond the space and time boundaries of the traditional day, providing learning experiences that were relevant and engaging for students, and preparing them with the digital literacy, learning, and life skills that would useful beyond the students' days at school.

Secondary teachers looking to extend their classrooms online should speak with students about their online lives to better understand what digital technologies they already use, as well as their reasons for choosing those tools. My research did not necessarily explore whether teachers should employ popular social media sites, such as Facebook and Twitter, or educational networks, like Edmodo and Schoology, but I believe the choice comes down to whether the sites' purpose will be more social or educational. I have used both types of sites and found that my interactions with students on Schoology were more educational, while my interactions with students on Twitter were more student-centered. But both were of great value to my teaching and relationships with students.

Secondary teachers should also consider the influence of classroom community on students' learning and implement digital learning spaces where students can collaborate. One must also take the digital divide into consideration, realizing that not all students have equal access to technology. This was one of the tough lessons I learned this school year when I required students to complete online assignments. I was fortunate enough to have computers for students to access in my classroom, but providing students with the time to complete the projects became another challenge. My online assignments were not additional assignments, but homework and discussion that were suitable to move into our online classroom. Maintaining an online classroom required additional upfront planning time, as well as setting aside time to provide students with feedback. Students expect immediacy with online interactions, and teachers should make their expectations and availability clear with student users.

*Implications for Policy*

Teachers, students, parents, and administrators should work together to craft mutually beneficially policies and effective learning environments. The challenges of life in the digital age prompted some school districts and state lawmakers to ban teachers from interacting with students online (Ewbank, Foulger, & Carter, 2010; Schworm, 2010). While I saw this move as reactionary, this study and others like it should be considered before making policy decisions regarding teacher-student interactions in digital spaces. As this study demonstrated, positive teacher-student relationships in secondary classrooms were the catalyst for teachers to establish online learning spaces on educational and popular social media sites. Blocking teacher and student access and interaction in digital spaces would negate teachers' goals for increased student engagement with curriculum and increased learning. Teachers wishing to utilize digital online media or mobile phones to interact with students should be allowed to do so as long as they have clear pedagogical goals, keeping in mind these goals do not have to focus specifically on course curriculum.

Policies regarding social media should encourage teachers should apply professionalism, ethics, and realistic expectations of online privacy in all their online interactions. Setting aside a closed online community for learning or social interactions would also be wise. These two recommendations, along with media literacy education, training on digital technology, and time to learn to use the technology should also be considered when developing policies regarding digital learning spaces. In regards to mobile phones in the classroom, I agree with the students' assessment that it should be up to the teachers' discretion, and training on how teachers can utilize mobile phones should

be included with digital media literacy education. In response to Mr. Jennings' assessment of the state of educational funding, lawmakers should also provide funding to support increased educational technology in schools as well as funding the help schools close the digital divide and achievement gaps for students lacking access to technology at home.

*Implications for Theory*

*Media Literacy*

The findings of this research study contributed to the existing literature on media literacy. As an educational movement focused on ways media and technologies are utilized and taught inside and outside of schools, media literacy provided a theoretical framework for the research. Now in this conclusion, I would like to propose how this study adds to that framework.

1. This study revealed how the teacher-student relationship played a role in how teachers choose to establish online learning spaces. Student engagement and students' media preferences were primary influences on teachers' educational media choices.
2. Teachers used online interactions to demonstrate how students should implement and integrate key concepts of media literacy. Teachers spoke to students in class about their online behavior and both modeled appropriate online behavior in digital spaces and posed online discussion questions concerning the topic.
3. Students shared how they choose their online friends and their perceptions of online safety and privacy. These stories revealed both an understanding and a lack

of media literacy, but add to the literature on ways teenagers form, maintain, and reject online relationships.

*Media Uses and Gratifications*

Bell High's teachers and students utilized several different media choices in their quest for digital learning. Teachers chose specific media to both engage students and meet certain educational and social needs. Students, on the other hand, had different expectations and desires for digital learning experiences that teachers simply could not yet fathom. On Katz, Gurevitch, and Haas' (1973) list of psychological needs that media use could gratify, both teachers and students sought out available media to fill their cognitive and integrative needs. This could be seen in the ways that students multitasked with their mobile phones and how teachers utilized personal learning networks to expand their content and technological knowledge. But students also used digital technology, especially social media, to meet their needs for pleasure and tension release. Only Ms. Reece spoke of playing games (possibly both for pleasure and tension-release), while the students found their Digital Age tools as necessary diversions from school. Understanding the differences and disconnects in the ways teachers and students used media could greatly improve their ability to connect and communicate. More research is needed into media uses and gratifications in digital learning spaces.

*Communities of Practice*

The research showed that time prevented the technology-centered community of practice that Ms. Gladstone desired with her Bell High teacher colleagues. Instead, the teacher participants organized their own personal learning networks. These loosely formed networks were complete with real world assets and long-distance digital

members, including students, technology experts, education professionals, teacher colleagues from Bell, and other educators available via online discussion groups. As far as classroom-based communities of practice, some of the teacher-student interactions reported by Ms. Reece and Ms. Gladstone resembled true communities of practice in that they were more equitable than traditional hierarchical classroom relationships. As seen in *Ms. Gladstone and the Trade-Off,* collaboration and the roles of teacher and learner were fluidly and comfortably exchanged. The collaboration described in *Ms. Gladstone's Smartboard Lessons* also demonstrated the ideals of classroom communities of practice focused on technology. These stories also offered glimpses into the possibilities of classroom communities of practice where students would act as technology resources, peer tutors, and digital learners.

## Recommendations for Further Research

While this teacher research study offered some insights into understanding teacher-student relationships and interactions in digital spaces, it also brought up many more questions. Stringer (2004) suggested that the teacher research cycle begins and ends with questioning. In many ways I felt this research just scratched the surface, especially in the area of the students' media use and online relationships. I was also left pondering the age old question: Does technology actually save time or does it take up more time? I was unable to find any research on uses and gratifications for educational media or technology which leaves another area in need of more study. After completing this study I was left many more questions that I could pursue as future teacher research projects:

1. How do new teachers or less tech-savvy teachers develop and maintain digital teacher-student relationships?

2. How do students of lower socioeconomic status negotiate issues of accessibility in the Digital age?
3. How do the uses and gratifications for personal media differ from the uses and gratifications of educational media?
4. How do students perceive the division between their personal and educational lives? How do they use media differently within these different roles?
5. How do students create personal learning networks using new media? Who do they choose as members of their PLNs and why?

Answering these questions would lead to greater understanding of the ways teachers and students can could digital technology more effectively.

## Concluding Thoughts: My Vision of School

Living in the 21st century, we will continue to be profoundly affected by the increased influences of media and technology. While the world changes outside my high school classroom, my work inside the walls of Bell High will go on a little differently than before. I will greet my students at the classroom door as always, but now I take more time to talk about their lives outside of school. I will comment on their Facebook and Twitter posts, maybe my students will come to expect (and even enjoy) online homework assignments on Schoology. While some of my students would say I am their favorite teacher, the title does not matter because they know that I care about them.

Time passes, school lets out for the summer, and the change occurs slowly. Students will post vacation photos and express boredom over their summer jobs, but they will also post messages on my social media accounts. My former freshmen will share stories about environmental change they saw on the news that dealt with countries they

learned about in geography class. Graduates from my European history will write celebratory greetings for Bastille Day on my Facebook wall in remembrance of our time studying the French Revolution. Slowly my students grow up and integrate their social and educational digital lives.

As teachers we rarely get to see the complete effect we have on students' lives. We simply take the time we were granted with each student and fill it with memorable educational experiences in the hope that some of it stuck. Integrating engaging, relevant lessons into classroom curriculum and extending these lessons beyond the walls of the school into digital spaces, hopefully gives these lessons a better chance of sticking—a better chance at changing students' lives.

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APPPENDICES

## Appendix A

### Student Focus Group Questions

1. How do you use digital technology at home?
2. How do you use digital technology to help you in your school work?
3. Tell me about how you use your mobile phone.
4. How important is your online/digital privacy? Who do you keep things private from?
5. Describe what social networking sites you use and how you use them?
6. Who do you accept as friends on your social networking pages?
7. How can social networks or other online resources make classroom learning better? Easier?
8. How important is having a positive relationships with teachers?
9. How do you feel about accepting teachers as friends on your social networks?
10. Describe your vision of the classroom of the future. What do you think schools will look like when your children go to school?

## Appendix B

## Teacher Interview Questions

1. Tell me about your journey into teaching/education.
2. Give me an example of how you integrate digital technology in your classroom lessons.
3. How important is the teacher-student relationship to your teaching pedagogy/beliefs?
4. How do you build rapport with your students?
5. In what ways can social networking websites, such as Facebook and Twitter, be used for educational purposes?
6. Give me an example of how you use or could use social networking sites to connect student's school work with home work.
7. Describe how you keep your professional life as a teacher separate from your personal/private life?
8. How do you use digital technology at home?
9. What do you think your classroom will look like 20 years into the future?

## Appendix C

## Teacher Focus Group Questions

1. How do you learn about new classroom technologies?
2. How do you handle situations where students do not have equal access to technology as their peers do?
3. Give me an example of a time when you have to deal with a student's online behavior or etiquette in the classroom.
4. How important is online/digital privacy to you? How important do you think online/digital privacy is to your students?
5. How do you feel about accepting students as friends on your social networks?
6. How do you decide who to request as friends on your online social networking sites?
7. Demonstrate/Describe your online classroom.

## Appendix D

## Coded Themes from Interview and Focus Group Data

1. Beliefs about Technology
2. Beliefs about the Teacher-Student Relationship
3. Blogs
4. Censorship
5. Choosing Facebook Friends
6. Classroom Community
7. Clickers
8. Computers
9. Connections via Technology
10. Costs of Technology
11. Declining Facebook Friend Requests
12. Digital Divide—Age
13. Digital Divide—Student Access
14. District and State Mandates
15. Edmodo
16. e-readers/Tablets
17. Facebook
18. Fear of Technology
19. Frustration with Technology
20. Future
21. Instagram
22. Lack of Technology
23. Learning
24. Mobile Phones
25. Negative Teacher-Student Relationships
26. Personal Learning Networks
27. Personal vs. Professional Life
28. Pinterest
29. Positive Teacher-Student Relationships
30. Powerschool
31. Practical Uses of Technology
32. Privacy
33. Professional Development
34. Resistance to Technology
35. School Website
36. Smartboards
37. Technology Addiction
38. Technology Fatigue
39. Time
40. Tumblr
41. Twitter
42. Web 2.0

## Oklahoma State University Institutional Review Board

| | |
|---|---|
| Date: | Friday, November 18, 2011 |
| IRB Application No | ED11188 |
| Proposal Title: | Exploring Digital Lives: Understanding Secondary Teacher-Student Relationships in Digital Spaces |
| Reviewed and Processed as: | Expedited |

**Status Recommended by Reviewer(s): Approved  Protocol Expires: 11/17/2012**

Principal Investigator(s):


Shanedra Dilese Nowell
2104 S. Hickory Ave.
Broken Arrow, OK 74012

Pamela Brown
237 Willard
Stillwater, OK 74078


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

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

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

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

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

Sincerely,

Shelia N. Kennison

Shelia Kennison, Chair
Institutional Review Board

VITA

Shanedra Dilese Nowell

Candidate for the Degree of

Doctor of Philosophy

Thesis: STORIES OF DIGITAL LIVES: TEACHER-STUDENT RELATIONSHIPS IN SECONDARY CLASSROOMS AND DIGITAL SPACES

Major Field: Curriculum Studies

Biographical: Born February 2, 1979 in Edenton, North Carolina to Garnet Nowell and Joey Michael Vail. Raised in Raleigh, North Carolina and moved to Tulsa, Oklahoma in 1995. Graduated from Union High School in Tulsa in 1997 in the top ten percent of the graduating class.

Education:
Completed the requirements for the Doctor of Philosophy in Education at Oklahoma State University, Stillwater, Oklahoma in May, 2012.

Received Master of Science in Teaching, Learning, and Leadership from Oklahoma State University, Stillwater, Oklahoma in May, 2007.

Received Bachelor of Science in Mass Media Communication at Oral Roberts University, Tulsa, Oklahoma in May, 2001.

Experience: Worked in Marketing and Management for five years before becoming an alternatively certified secondary social studies teacher. Taught in Oklahoma public schools for six years. Volunteered as a preschool Sunday school teacher at my local church.

Professional Memberships: Technology Liaison and Teacher Consultant for OSU Writing Project, National Writing Project, Yale National Initiative, Phi Kappa Phi, NAMLE, OEA, NEA, TCTA

Name: Shanedra Dilese Nowell Date of Degree: May 4, 2012

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: STORIES OF DIGITAL LIVES:
TEACHER-STUDENT RELATIONSHIPS IN SECONDARY CLASSROOMS AND DIGITAL SPACES

Pages in Study: 182 Candidate for the Degree of Doctor of Philosophy

Major Field: Curriculum Studies

Scope and Method of Study: This qualitative teacher research study employed narrative inquiry to answer its primary research question: How do secondary teachers and students make connections using digital online media? Interviews, focus groups, internet artifacts, and other demographic data were used in this interpretivist study. The open coding data analysis method revealed themes that were used to select participants' stories to be re-storied into narratives in order to provide a more in-depth analysis.

Findings and Conclusions: The teacher and student participants utilized a variety of digital media technologies to connect in the classroom and online. Teachers used internet, online video, mobile phones, and social media networks to support their classroom lessons and to engage students in the learning process beyond the time and space boundaries of school. Teachers felt online digital availability would increase student learning and engagement inside the classroom. Students' media use was more social and relationship-driven.

Teacher-student relationships began in classrooms and then extended into digital spaces. Students conveyed curiosity and fear towards socializing with teachers in digital spaces, while teachers seemed uncomfortable with purely social online interactions with students. Both groups struggled to break the boundaries established around teachers' private and professional lives.

ADVISER'S APPROVAL: Dr. Pamela U. Brown