Let Us Be Friends: Integration of Electronic Communication in Elementary Schools and Ethical Considerations

By

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Abstract

Research has shown the value of a positive teacher-student relationship in a student's academic performance. With the proliferation of technology in society, research began to explore the different applications technology use can play in the field of education. Electronic communication between teachers and students are strictly limited by the Ontario College of Teachers and there are clear gaps between how each sector of education; elementary, secondary, and adult, uses electronic communication. This paper explored the means through which teachers at the elementary school level can and have used electronic communication and the effects it has on the teacher-student relationship. Three participants were interviewed for this study. The results show that although there are ethical limitations to the use of electronic communication within a classroom setting, there are more pertinent logistical barriers that restrict its use. Further, intriguing insights into the nature of the elementary classroom setting in comparison to that of high school and adult education are discussed in relation to the teacher-student relationship and technology use.

*Keywords:* electronic communication, teacher-student relationship, limitations, elementary school education
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Chapter 1: INTRODUCTION

Introduction to the Research Study

Society has changed dramatically with the invention of the computer. Since being fully commercialized, the computer has evolved to become a source of knowledge and entertainment. However, in recent years, computers have played a role in shaping how society is connected, and particularly the way in which humans communicate. Initially, through the use of email, people were connected despite being physically far apart. Email became a more efficient means of sending people messages and communicating important information. Seemingly cutting edge, email would also meet the next innovation in interpersonal communication through the rise of social media. Now, through the use of Facebook, Instagram, Twitter, and numerous other such social media tools, friends and family are easily reached and the connection is almost instantaneous.

For the most part, social media and electronic communication is used between family and friends, but one sector that has embraced technology and reaped the advantages it provides is education. Using computers and the Internet, students are now able to access an endless supply of sources in order to gain knowledge and to support their learning. Harnessing the power of technology and social media, the communication between teachers and students can also be improved, thus, strengthening the teacher-student relationship. How then, I asked myself, can technology be fully embraced to enhance communication and relationship building between teachers and students? This paper will explore the possible uses of technology for creating a safe,
beneficial, and equitable environment in which students and teachers can communicate using the media tools so fully embraced by children of the modern era.

**Purpose of Research Paper**

During my years in school as a student, and now as a teacher candidate, my experiences have given me deep insight on the value of fostering a strong relationship between the teacher and student. Drawing from my experiences, I have come to the idea that there is a need for a strong teacher-student relationship in order for students to succeed in school holistically. Susan Schwartz and Mindy Pollishuke (2013), both seasoned authors and professional educators state in *Creating the Dynamic Classroom A Handbook for Teachers*, creating a warm, caring, non-threatening, and inclusive atmosphere in your classroom will not happen without careful planning. Such a desirable atmosphere will help your students learn in exciting and meaningful ways. They will feel represented in your classroom community. They will feel safe to take risks; they will feel free to express their views; and they will be compelled to work cooperatively and collaboratively with others. With you help, guidance, and careful planning, they will become a community of learners where mutual respect and self-worth prevail (Schwartz & Pollishuke, 2013, pg. 27).

Living in a world of rapid advancement in technology, teachers have the great opportunity to reap the advantages of what this new wave can bring to teaching and learning (Schwartz & Pollishuke, 2013, pg. 245). With the rise of social media and online chat, many institutions have taken this tool and applied it into the communication of their organization. There are many universities that have embraced technology with the use of programs like: Blackboard, Quest, and other such programs that facilitate instructor-student communication. Although there are avenues through which elementary school teachers can find ways to create a virtual community with their students, such uses of technology have not been fully taken advantage of in my experiences both as a student and a teacher candidate in elementary schools. As a result, this paper intends to draw together two spheres of research: teacher-student relationship and
Electronic communication, while providing possible suggestions for a program in which students can communicate with teachers in an inclusive, ethical, and practical manner.

**Background of the Researcher**

The experiences that drew me towards researching the teacher-student relationship through electronic communication are derived from my years as a student in the elementary school system, as well as my time working as a teacher candidate in the York Region District School Board. While I was a student, I found that my time inside the classroom was, for the most part, very enjoyable. The bonds that I had with my teachers were very strong and I felt comfortable within the school. In this environment, I was able to excel in my studies and established friendships with classmates that are still significant in my life today. I can attribute both emotional and academic success to the positive relationships I had with my teachers, as I felt safe to challenge myself and do things that I would not have been comfortable with otherwise. These experiences in my elementary years have resonated throughout my formative years and as I stepped out of the role of a student and into that of a teacher in a classroom, these same feelings, which I have attributed to my success in life, have been a goal for me to instill within my own students. Therefore, within my own classroom, I strived to improve and strengthen the teacher-student relationship.

Fortunately, my AT was a great model for positive teacher-student relationship. The teacher was able to connect on deep, personal levels with every one of the students in the class. The effects of this were readily observable as they genuinely enjoyed being in the classroom. As a result, the students were engaged with the activities and lessons that the teacher had planned and there was a very inclusive atmosphere. Learning within an inclusive and nurturing
environment, the students show much confidence and their academic prowess was fully expressed in their work.

It is clear that a positive teacher-student relationship can enhance the learning experience of the students and provide a nurturing environment in which they can reach their full potential. Obviously, this effect can be achieved within the classroom. However, I have noticed changes in the classroom with the rise of technology and social media. I found that as students were more inclined to use social media to communicate with their peers, this would be a fantastic opportunity for teachers to be utilizing what is available and foster a healthy environment in the virtual world. Teachers could harness the power of the different types of social networking sites that students are using and capitalize on these interests by carefully incorporating it into the classroom (Schwartz & Pollishuke, 2013, pg. 253).

As an undergraduate and graduate student, I have experienced the different electronic programs that the post-secondary institutions use in order to create a virtual classroom outside the physical confines of the building. Using these programs, assignments, and assessments are communicated from the professor, and students can readily access items they need at their leisure and in the comfort of their home. Furthermore, the online communities are able to facilitate lively online conversation and foster an environment of inclusivity and openness that a traditional classroom can provide. The teacher-student relationship can be strengthened by the instructors’ availability outside the classroom; students need not wait until they are physically beside their instructor for deep conversation. This very same technology can be seen seeping into secondary and elementary schools. Unfortunately, from my own observation and experiences as a teacher candidate, these online programs are not utilized to their full extent. This is due, in part,
to the ethical issues that surround social media and electronic communication pertaining to the boundaries between a student and a teacher.

Swartz and Pollishuke (2013) warn supporters of the use of electronic communication that teachers' conduct can, and has, come into question in recent times as they become involved in social networking (Swartz & Pollishuke, 2013, pg. 253). Unable to neglect the potential advantages of electronic communication and its role in the building of a healthy teacher-student relationship, which is important to the growth of students, my objective is to emphasize the need for strong teacher-student relationship, explore the use of electronic communication within the classroom, and address ethical considerations that teachers must overcome before fully embracing the entry of a social media based communication system in their elementary school classroom.

**Research Topic and Question**

The research question driving this paper is:

How can the same electronic communication utilized in post-secondary education be effectively implemented in elementary schools, fostering a strong, positive teacher-student relationship, while adhering to ethical standards?

Inherent to legitimizing the use of electronic communication in the elementary classroom, this paper must first look at the benefits of desirable teacher-student relationships. In addition, requiring a sound knowledge of the advantages of electronic communication before engaging students with the technology, this paper will attempt to fill the existing gap between the fields of teacher-student relationship and electronic communication research.
Overview

The introduction and purpose of the research paper will be contained in Chapter 1, which will also include my own background and how it drove my research topic and interest. Chapter 2 will be the literature review in which the current research pertaining to this paper will be divided into three categories: Teacher-Student Relationship, Electronic Communication and Applications to Education, and Ethical Considerations on Electronic Communication. The methodology and procedures utilized in this paper will be outlined in Chapter 3, including references to the interview questions and other data collection instruments located in the appendix. Chapters 4 will include participant demographics and details of the collected data and analysis. Finally, Chapter 5 will expand upon some limitations, conclusions, and applications to teacher practice and future implications that result from this research. A list of references and appendices will follow Chapter 5.
Chapter 2: LITERATURE REVIEW

Teacher-Student Relationship

The issue of teacher-student relationship saw its beginnings in 1954 with a publication in the National Association of Secondary-School Principals, by R. B. Norman, a principal of the Amarillo Senior High School, in Amarillo, Texas. Being tasked with improving student-teacher relations, Norman (1954) worked with the idea that,

"The relationship of child to mother, and to a lesser degree to teacher, determines his emotional climate, affections, feeling of belonging, status with his peers, ways of meeting needs, process of working with people, whether domineering or sharing, and finally, gives him his concept of self and the relations of others to him." (p.102).

It is through this finding that the research is legitimized. Not only is the study of improving teacher-student relationship a clear benefit to students, teachers also grow in their tolerance and their ability to embrace more constructive methods of dealing with students rather than using arbitrary or authoritarian methods (Norman, 1954, pg. 103). On top of the need for teachers to be engaged in their own research and understanding of the importance of human relations and human growth, Norman listed other fundamental conditions that influence teacher-student relationship considerably: "(1) The School Spirit, (2) Democracy in the School, (3) The Co-operative Enterprise Attitude, (4) Student Participation in School Management, (5) The Pupil Activities Program, (6) The Work Attitude, (7) The Public Relations Program, (8) Working Conditions and Teacher Morale, (9) The Social Activities (Norman, 1954, pg. 103). Norman concludes by listing extensively the different notes taken from both students on the subject of teacher-student relationships (Norman, 1954, p. 110), which I have organized in a table, the top 10 statements most pertinent to my own research, as seen in Table 1.
Although written in 1954, there is still an emphasis on providing an inclusive and safe environment that continues to be so important to education today. This piece by Norman led me to question, how can these ideas and principles be incorporated in a virtual classroom, something that was not readily available in the 1950s? Indeed, as Hargreaves (1998) stated,

Good teaching is charged with positive emotion. It is not just a matter of knowing one's subject, being efficient, having the correct competencies, or learning all the right techniques. Good teachers are not just well oiled machines. They are emotional, passionate beings who connect with their students and fill their work and their classes with pleasure, creativity, challenge and joy. (p. 835)

In the same spirit of Norman's 1954 paper, a longitudinal study in 2008, also in Texas, was conducted by Hughes, Kwok, and Lyod (2008), on the effects of teacher-student relationship quality (TSRQ) on effortful engagement, and achievement in reading and math. The data was collected annually starting in the 1st grade for three years. The researchers believed that effortful engagement would be able to lead to unique predictions on subsequent achievement (Hughes et al., 2008, p.3). With this assumption, the paper continues to explain the effects of TSRQ on effortful engagement. With high levels of teacher-student relationship, where there is a close and supportive connection between teacher and student, a child's emotional security and confidence will be promoted (Hughes et al., 2008, p.3). Through a secure environment, students are
permitted to actively explore their environment and meet the requirements of new academic and
social demands (Hughes et al., 2008, p.3). The researchers found that TSRQ on reading and math
achievement after 2 years was completely mediated by Year 2 effortful engagement (Hughes et
al., 2008, p.9). The results of the paper were further elaborated upon by the researchers, who
found that the effects were similar among different social groups including boys, girls, majority,
and minority students (Hughes et al., 2008, p.10). These findings suggest that, "...TSRQ in the
first grade of students shape children's patterns of engagement in learning, which leads both to
more supportive relationship with subsequent teachers and to higher levels of achievement." (Hughes et al., 2008, p. 11). This student demonstrates the importance of a strong teacher-student
relationship in a child's formative years, to their academic achievement and future relationship
with teachers, beginning a pattern of reciprocity.

The reciprocal relationship between a teacher and student receives more attention in an
article by Spilt, Koomen, and Thijs (2011) when they state that this mutual relationship can,
"...impact the professional and personal lives of teachers." (p.457). Focusing on how stress
affected teachers, the researchers looked at how a positive teacher-student relationship can
contribute to the wellbeing of the teacher. Referring to Lazurus’ (1991) Transactional Model of
Stress and Coping, we are told that negative emotions are the keys to understand the effects of
external stressors on wellbeing. Spilt and her colleagues discuss the previous research that
attributed teacher’s negative emotional experiences and stress for teachers to be a result of their
perceptions of student misbehaviour and discipline issues (Spilt et al., 2011, p.470). Although the
authors focused on the teacher’s perspective within the teacher-student relationship, the mutual
aspect of the relationship was not absent in the paper. The paper not only state, “A closer
understanding of teachers’ relatedness to students in the classroom may not only provide new
insights in teachers’ wellbeing, ongoing professional development,” (Spilt, et al., 2011, p.470), but also mention that there are indirect benefits pertaining to students’ school success (Split, et al., 2011, p.470). The authors conclude by suggesting that, “…teachers’ relationships with specific students can be primary sources of teachers’ everyday emotional experiences and wellbeing because teacher-student relationships contribute to a basic need for relatedness.” (Spilt, et al., 2011, p.473). This article provides valuable insight on the reciprocity between a teacher and student that can improve and strengthen their relationship, and the immense benefits for both the teacher and student, further driving my own research and legitimizing my endeavours to finding new ways of developing this same relation.

In the spring issue of New Directions for Youth Development (2013), Berstein-Yamashiro and Noam, American educational researchers, explored the teacher-student relationship, the issue having become a recent phenomenon in educational research and theory (Berstein-Yamashiro and Noam, p.15). The authors begin by highlighting the rising numbers of unconventional family dynamics like foster homes, parental divorce or remarriage within high schools in today’s schools (Berstein-Yamashiro & Noam, 2013, p.16). The researchers found that many factors had led to the deterioration of teacher-student relationship such as school structures, and the idea that teachers must create social distance between themselves and their students in order to maintain discipline and to encourage independence (Berstein-Yamashiro & Noam, 2013, p.17). Berstein-Yamashiro and Noam elaborated on the importance of a strong teacher-student relationship. The researchers state that, "...students are less likely to drop out of high schools where relationships between teachers and students are consistently positive." (Berstein-Yamashiro & Noam, 2013, p.18). Also, the article points out that, "Teacher-child relationship quality predicted behavioural and academic indicators of school success during the formative elementary school-aged period,
and seems comparably important for younger and older students." (Berstein-Yamashiro & Noam, 2013, p.18). After looking at the benefits of a positive teacher-student relationship, the paper continues by looking at environments that will allow for strong, positive relationships between teacher and student. Smaller schools are more able to increase the connection between the teacher and student, especially in the case of poorer schools (Berstein-Yamashiro & Noam, 2013, p.20). Despite these findings, the authors emphasize the fact that it is not guaranteed that small schools will have higher levels of teacher-student relationships, conversely, larger schools can create excellent relationships with the quality of teachers (Berstein-Yamashiro & Noam, 2013, p.20). Bernstein-Yamashiro and Noam end their first chapter in the 2013 issue by highlighting the importance of continued research on teacher-student relationships and stating, "Certainly the human dimension of teaching and learning is an area that both research and policy should centralize and continue to study." (Bernstein-Yamashiro & Noam, 2013, p.23). This first chapter by the two researchers gave an overarching view of the research on teacher-relationship so far in this field of research as well as bringing me closer to the cutting edge of research related to the bond between teachers and their students.

**Electronic Communication and Applications to Education**

In relation to the application of electronic communication within education, I first refer to the work of Henry Jay Becker in 1984. Becker studied the use of computers within schools during a time in which technology was the topic de jure within education (Becker, 1984, p.22). Becker first highlighted the reason why computers had become a crucial addition to the curriculum, "Parents worry that their children will be unemployable unless they know how to use computers in ways their future employers might like." (Becker, 1984, p.23). This concern was not limited to the parents of children as teachers and school administrators also feared that they
would fall behind in the world without sufficient knowledge of computers children (Becker, 1984, p.22). Becker continues to explore the use of computers in the classroom as a "medium of instruction" (Becker, 1984, p.25). Becker expands on the different ways in which computers can be used: computer-assisted-instruction in both its drill-and-practice and tutorial modes, simulations and other ways of providing students with a risk-free, inexpensive, structured environment for exploring a particular content domain (Becker, 1984, p.25). The paper also outlines some capacities and visions for computer use in children's education. Firstly, the use of computers can engage students in a highly motivating and intellectually active dialogue, thereby providing appropriate instructional stimuli on an individualized basis, and to provide diagnoses and feedback (Becker, 1984, p.26-27). Secondly, computers have the ability to create intellectually stimulating environments in which students can explore subject matter beyond the current curriculum as well as the knowledge of the teacher (Becker, 1984, p.27). Third, computers have the ability to provide students with resources that they would have had to travel to get, but can now be accessed in the comfort of their own homes (Becker, 1984, p.27). Fourth, learning experiences and opportunities can now be accessed by students through simulation, where it may have been too time consuming or too costly otherwise (Becker, 1984, p.27). Finally, "there is the ability to foster in a generation of young adults the capacity to perform analytic tasks and solve important organizational problems involving information far better than older generations because they receive an early and continuous exposure to concepts and specific tools for computer-assisted problem solving." (Becker 1984, p.27). Becker's article provided a deep insight to the potential of computer use within education and the need for students to fully embrace the technology that has been provided us.
Jumping from Becker's 1984 paper on technology in the classroom, this paper will now look at Becker's take on the same topic almost two decades later in 2000. Again completing his work in America, Becker primarily focused on the "digital divide" (Becker, 2000, p.44) that has developed between children benefiting from the use of computers and those who are not able to reap the same rewards of this technology. However, Becker also provides valuable information on the use of computers, which pertains to the interests of my own research. Becker states that, "If connected to the Internet, a home computer can provide children with a vast array of material for both their education and entertainment, as well as a vehicle for informal 'chats' or sending e-mail to friends and cybermates." (Becker, 2000, p.56). For those children older than eight, computer use for assignments for school stood second only to personal gaming (Becker, 2000 p.60). Becker (2000) continues by stating that,

"At home, children's experiences with computers on the whole appeared to be more recreational than school related- with children spending as much time playing games or using e-mail as completing school assignments or searching for information on the Web." (pg. 68).

This paper has provided great potential and hope that there are possible connections and integration between recreational electronic chat and educational activities. The two articles by Becker has given this paper direction and a fuller understanding of electronic communication within education. Further, Becker has provided a seamless connection between teacher-student relationship and electronic communication.

Moving towards the practical aspects of implementing electronic communication within an educational setting, the role of the moderator must be examined in terms of what they should do in order to maintain an online community. In the *Handbook of Research on Computer*
Mediated Communication (2008), Collins and Berge wrote an article on the moderation of discussion groups using computer mediated communication (p.619). The issues of moderation and facilitation of discussion were studied by the two researchers before the advent of the internet (Collins & Berge, 2008, p.620), bridging the virtual and physical classroom as the same issues are being studied within online communication today as they were before the creation of the Internet. The researchers continue the paper by elaborating on the role of the moderator. The moderators, "have a significant impact on the communications exchanged and the learning that occurs in online discussion groups." (Collins & Berge, 2008, p.624). Further, the moderator has the ability to silence any voice within discussion groups, in order to control the conversation and shut down communicative abuse in extreme cases (Collins & Berge, 2008, p.624). During the years spanning 1992 to 2003, the role of the moderator had changed to encompass a large array of different jobs and responsibilities, making the position of moderator a vital one in today's online communication network (Collins & Berge, 2008, p.625).

Collins and Berge also discuss, in this same article, the sense of community that develops within online discussion groups. In 1997, 15% of the moderators studied believed that the importance of community within group members were not important at all, but by 2003, this number had dropped drastically to just 3% (Collins & Berge, 2008, p.630). Moderators also suggested ways in which a sense of community could be built,

"..these including performing a variety of host/hostess duties, providing a safe and protected group discussion space, allowing group members to take responsibility for sorting out their problems; encouraging joint governance; and recognition of the group as either the origin or the extension of a face-to-face group." (Collins & Berge, 2008, p.630).
Collins and Berge also found that moderators reveled in assisting, "the birth and development of new, safe and caring communities" (Collins & Berge, 2008, p.630). However, the role of moderator is not without difficulty. Some found that they had to deal with difficult people and at time, had to take on the task of keeping the conversation going (Collins & Berge, 2008, p.630). In order to face these challenges, the most critical trait that a moderator had to possess was patience (Collins & Berge, 2008, p.630). In addition, other desirable qualities were: "having a vision and goals for the group, having interpersonal and social skills caring for people, having content knowledge, technical skills and strong communication skills (Collins & Berge, 2008, p.630). The article concludes by stating, "the very simplicity of online discussion groups and the fact that messages are delivered to subscribers' mailboxes continues to ensure their longevity (Collins & Berge, 2008, p.631). The researchers have demonstrated the heavy burden that falls on the moderator's shoulders, a role that would be taken upon by the teacher. In spite of this, there are many benefits in terms of community and bonding that can happen within an online community. With the knowledge of how the use of technology within education has evolved over the last two decades, as well as the roles involved in this process, one may now begin to look at how the technology has been adapted to each level of education: post-secondary, secondary, and elementary.

**Post-secondary and adult education.** The initial insurgence of technology in education began at the top with applications to post-secondary institutions. In 1996, as email became more popular and widespread, Linda M. Manning, an economics professor at the University of Missouri-Rolla, published an article outlining the use of electronic communication, namely email, in her economics classroom. Initially, personal contact between the instructor and student may be expected to decrease drastically, leading to instructors being perceived as
unapproachable, however, Hartman et al. (1991), found that, not only was this a false expectation, but rather than replacing traditional communication, email increased such interaction (as cited in Manning, 1996, p. 201). With the use of email, the nuances of nonverbal cues that students may pick up as evaluations of themselves are reduced (Manning, 1996, p. 201). Through this, those who may be shy and intimidated within a classroom setting will be allowed to communicate with their instructor through a means where they can be comfortable and not seen as being judged (Manning, 1996, p. 201). Furthermore, email can be used within the classroom as it breaks any distance barriers that may affect the communication between a professor and a student. The rise of email helps to eliminate the need for immediate response and allows instructors to carefully respond to a question that may not be possible through a phone call or face-to-face meeting (Manning, 1996, p. 201). Not only has electronic communication been adapted as a bridge between the instructor and student within the post-secondary setting, the author also elaborates on an important use of technology within the classroom. Apart from enhancing the interaction between student and instructor, Manning also points out the use of technology in the form of information dissemination (Manning, 1996, p. 201). One way in which items that were missed the lecture can be sent to the students is through the use of email. This can be done through the use of a mailing list or, more effectively, a discussion list (Manning 1996, p. 201). Discussion lists, made available through the Internet, can allow students to subscribe to a mailing list. With this tool, instructors can easily disseminate information to a large audience in a very short amount of time. Further, with the absence of social cues online, students can be empowered to share their perspectives, "E-mail discussion might well have the potential to encourage students who are sometimes silenced because of their status, race, handicap, or gender to 'speak up,'" (as cited in Manning, 1996, p. 201). After email and the
Internet began to change the classroom, another innovation within electronic communication would be adapted and further modify the communication between students and instructors: Facebook.

Harriet L. Schwartz, an assistant professor at Carlow University wrote an article describing the new technology and its adaptation into a university classroom. Schwartz states that with discretion, Facebook can be considered as a worthy communal place for students and instructors to interact in (Schwartz, 2009, p. 39). The traditional commons, "a place where the diverse parts of a community could come together and hold a conversation within a shared sense of participation and responsibility," (as cited in Schwartz, 2009, p. 39), would evolve with the entry of Facebook into the world of electronic communication. It is clear that the use of technology in the classroom has transformed the way in which students and instructors interact with each other and how the educational community has shifted as technology evolved. Another adaptation that Schwartz highlighted in her article was the use of Facebook as a means of mentoring. Although the image of mentoring suggests personal conversations, which is contrary to the nature of electronic communication and messaging, the article found that, as long as the connection between the mentor and mentee experience, "'the five good things': increased energy and well-being, potential to take action, increased knowledge of self and others, a boost to self-esteem, and an interest in more connection." (as cited in Schwartz, 2009, p. 42), then there will be a growth in the relationship. Through the authors own experience, she believes that some of her own Facebook interactions with her students consist of most of the five good things required in the growth of a mentor-mentee relationship (Schwartz, 2009, p. 42). This encourages the application of this new technology into the post-secondary and adult education as it demonstrates the effectiveness of its use in existing classrooms. Finally, Schwartz also demonstrated how the
discussion lists that resulted from the advent of email and the Internet also evolved within the classroom with the arrival of Facebook. Utilizing the function of group pages on Facebook, Schwartz was able to disseminate information publically for all the invited members of the group, making interaction instantaneously and void barriers related to time and space (Schwartz, 2009, p. 42). Clearly, as the evolution of electronic communication progressed, post-secondary and adult educational spaces were also transformed.

**High school education.** In an article by Perkins and Pfaffman in 2006, the use of electronic communication and technology is highlighted through the use of a course management system in a classroom. Course management systems trickled down from post-secondary education, where course information and conversations can be held in a singular space dedicated to a specific class. The two authors looked at the application of Moodle, a popular course management system, within Oak Ridge High School, located in Tennessee. Until that point, schools have had access to school websites that can be maintained online. However, the technical knowledge required in maintaining such a website was complicated and expensive in cases (Perkins & Pfaffman, 2006, p. 34). Therefore, with the arrival of web-based applications such as Facebook and blog sites, teachers were able to take advantage of this technology in disseminating information (Perkins & Pfaffman, 2006, p. 34). Providing a more sophisticated form of web-based applications are course management systems like Blackboard, WebCT, Desire-2-Learn, and Jenzabar. Due to the fact that Moodle is free, and comparable in ease of use to its proprietary competitors, this was the system implemented at Oak Ridge High School (Perkins & Pfaffman, 2006, p. 34). Moodle, Modular Object-Oriented Dynamic Learning Environment, provides teachers with tools that can used to support student learning as well as facilitating communication with parents (Perkins & Pfaffman, 2006, p. 35). Through the use of
simple icons and tabs, teachers can add activities and resources that students can then access either during class or in the comfort of their homes after school. Further, teachers can allow students to upload digital copies of assignments through Moodle that is simple and convenient for both parties. Focusing on the communicative aspects of Moodle in a classroom, the authors saw that rather than associating Moodle with distance education, they were able to use the system to support traditional classroom instruction and facilitate communication (Perkins & Pfaffman, 2006, p. 36). The researchers also found that during the process of utilizing this system, students were less inclined to misunderstand assignments, due dates, and other course requirements (Perkins & Pfaffman, 2006, p. 36). After describing the benefits of Moodle in the classroom, Perkins and Pfaffman elaborated on the application of the system in a specific example: a physics classroom. Along with publishing homework on Moodle, class slides were also uploaded, which was found to be easy and kept the teacher organized (Perkins & Pfaffman, 2006, p. 36). It is clear that on top of lesson planning and organization, the use of a course management system helped to facilitate electronic communication, albeit not in a direct fashion. The class and homework instructions, which may be misconstrued or hard to understand for some students can be uploaded as a text document for students to review at their own pace. In addressing electronic communication in the sense of messaging, Mary Todoric, a director of communications for Community High School District 128 in Illinois, brings up the issues of electronic communication.

References to cell phones, email, Facebook, texting, blogs, or Twitter in the media demonstrates that electronic communications are, "in the forefront of students' lives." (Todoric, 2011, p. 47). In order to connect with the students, teachers wish to utilize this technology in their classrooms. However, Todoric (2011) refers to the implications of communicating with
students through social media outside of the classroom; if an English teacher wants to engage in a dialogue about Shakespeare with his students in the evening via an online chat community, is that OK? (Todoric, 2011, p. 47). Todoric finds that although many districts have decided to ban electronic communication altogether, some have decided to make all uses of digital communication acceptable (Todoric, 2011, p. 47). Realizing the benefits electronic communication in the education of students, Todoric points out several parameters that can allow for appropriate, and encouraged communication between teacher and student: 1) All electronic communication between staff and student should be transparent, 2) All electronic communication between staff and students should be considered a matter of record, part of the district archives, and/or may be accessible by others, and 3) All electronic communication from staff to student should be written as a professional representing District 128 (Todoric, 2011, p. 48). Upon fulfilling the three parameters set up by the district, Todoric (2011) believes that communication is indeed appropriate, and encouraged. The article also continues to highlight what is seen as acceptable communication methods like email, school websites, and Moodle, as opposed to text messaging, which is less acceptable (Todoric, 2011, p. 48). Finally, Todoric addresses the use of Facebook, where it is only allowed as a means of creating fan pages where students can keep abreast of updated information about class, but the act of adding teachers as friends is strictly forbidden (Todoric, 2011, p. 49). It is clear that although both high school and post-secondary and adult education has accepted and adapted to the rise of electronic communication, there are significant differences between what the instructor may do in communicating with students, due to the sensitivity of the students' age.

Elementary school education. A year after Becker's research conducted in 2000, McCreary, Ehrich, and Lisanti, published a paper about the social dynamics within online
communication among elementary students and teachers (one technology teacher, one homeroom teacher) with home internet access. Providing 24 fifth grade students and two teachers with computers and home internet access, the researchers studied the conversations and exchanges between teachers and students after school. During the year that the researchers conducted their study, each student had sent email to every other student and the technology teacher at least once, while 79% of the students had sent an email to the homeroom teacher (McCreary, Ehrich and Lisanti, 2001, p.576). Other statistics related to traffic within the online community were reported by the researchers, 1 Students sent an average of 6.2 messages to each person in the network; the teacher sent an average of 9 messages to each student and the technologies sent an average of 57.6 messages (McCreary, Ehrich, and Lisanti, 2001, p.576). Clearly, the study had demonstrated the startling need for a person who is well versed with the technology within the online community, being the center of communication during the one year experiment. Also within the study, McCreary and her colleagues found that the students used chat within the online network but there were no instances of either teachers' participation (McCreary, Ehrich, and Lisanti, 2001, p.576). The results show that even without teacher intervention, the online chat can be maintained by the students. However, as the paper was written in 2001, the immergence of social media and the widespread usage of cellular phones among younger students could not be accounted for. As a result, the study found that, at the time of the study, students, once out of the physical classroom during the summer, had virtually abandoned the online chat for face-to-face or phone communication (McCreary, Ehrich, and Lisanti, 2001, p.578). On the other hand, during an unexpected period in which the school was closed during the winter, there was an increase in email communication despite the lack of a physical classroom (McCreary, Ehrich, and Lisanti, 2001, p.579). This bodes well for the use of
online communication that can help support the face-to-face communication available in the classroom. A final vital piece of information provided by McCreary, Ehrich, and Lisanti was that there was a clear need for the involvement of the teacher within the online communication network and their competence with the technology as it drastically mediated the effects on email communication in the study once they were removed from the analysis (McCreary, Ehrich, and Lisanti, 2001, p.579). This article brings to light some crucial factors that can drive online communication that depends heavily on teacher involvement and technological prowess. Pertaining to my own research, this paper outlines important elements that need to be present in the design of an effective online communication network for today's elementary schools.

Another example of how electronic communication can be adapted into elementary school education, was examined by Doherty and Mayer (2003), on the use of e-mail as a contact zone for teacher-student relationships. Students in a middle school were provided computers with Internet access, and encouraged discussion between teachers and students. The authors found that general discussions quickly began to become individualized, and familiar dialogue increased (Doherty & Mayer, 2003, p. 593). Through adaptation of technology within an middle school setting, the researchers added to the growing research that suggests e-mail in education settings can build supportive and intimate communities (as cited in Doherty & Mayer, 2003, p.596). The fear that students face within a classroom of finding the proper opportunity to speak their mind, compounded by their belief that their opinions are immediately judged by the teacher, can hinder student participation with traditional oral communication (Edwards & Westgate, 1994, p. 40). Therefore, electronic communication has been embraced by school classrooms in order to prevent the problem of classroom oral communication, "that inappropriate talking in class can constitute a behavioural problem demonstrates the strict social code operating in these
contexts.” (Doherty & Mayer, 2003, p. 597). Although electronic communication can, contrary to popular belief, serve to pull a classroom together and win over the reluctant or reticent student (Doherty & Mayer, 2003, p. 598), my personal experiences within education demonstrate to me that there is still a lack of utilization of this electronic exchange. Therefore this author wonders, whether there is an ethical reason behind this gap between research and practice.

**Ethical Considerations on Electronic Communication.** As electronic communication pervades the educational system, there have been many ethical protocols set to protect the students from those who would abuse this new connection. Although not a majority by far, there have been cases in which students have had inappropriate contact and communication with faculty through the use of electronic communication. In order to fully reap the benefits of technology, this paper must explore the ethical considerations of electronic communication use.

In the June 2009 issue of *Professionally Speaking*, a magazine catered towards informing educators about the new trends within the field in Canada, Foxman wrote an article looking closely into the boundaries between teachers and students within electronic communication. Often, Foxman found, teachers caution students in how to operate safely and appropriately, the online social media and electronic communications they have access to, but this same advice is not so readily adhered by those same educators (Foxman, 2009). Foxman (2009) continues to cite several cases in which the boundaries between teacher and student were clearly breached:

1. After a parent complained, a Calgary teacher was reprimanded for posting comments about drug-using mothers on her Facebook page.

2. At a North Carolina school, several teachers were disciplined when the board learned of their Facebook pages. The postings included photos of female teachers in suggestive poses and the comment, “I hate my students”
3. In BC, a school principal was temporarily removed from his position after a parent stumbled on a nude photo of him on his personal web site.

4. A Virginia woman who teaches students with learning disabilities used the word “retard” on her Facebook page and posted a photo of her holding a bottle of tequila between her head and shoulder.

The article clearly outlines different ways in which teachers can, perhaps unknowingly, cross boundaries within electronic communication.

Following these obvious cases of inappropriate behaviour, Foxman poses the question of whether a Halifax teacher who used Facebook to connect with his students was engaging in an innocent practice or if the decision of school administrators to discourage this was correct (Foxman, 2009). Under these previous cases and samples of misconduct online, school administrators have begun to try and educate the teachers in being thoughtful of what is being posted online. The Dean of Education at Nipissing University is quoted, “Don’t post anything that you would not want your principal to see” (Foxman, 2009).

Expanding further on the ethical considerations of electronic use, Foxman looked at the specific boundaries that a teacher must set with their students. Although social networking sites can benefit links between teacher and students in terms of homework and school matters, these same networks cannot be used merely as a means of creating a social relationship (Foxman, 2009). Despite the numerous precautions and potential traps that social media can pose, Foxman looks to Melanie McBride, an educational web-content writer, to provide a refreshing perspective, “There is far too much fear and negativity around these tools and technologies. These media can serve educational purposes” (Foxman, 2009). McBride gives Foxman further examples of successful cases of social media uses in Hamilton-Wentworth DSB, where
Facebook is used to create group pages for schools or special programs (Foxman, 2009), and The Triangle Program at Oasis Alternative Secondary School (Foxman, 2009). Foxman’s article sheds light on the seeming reluctance for elementary schools to embrace electronic communication and social media within the classroom, but also give a realization that there are many potential benefits that can come from utilize the technology that are so readily accessible. All that is required is that teachers take care when they are engaging in conversations with students online and avoid breaching appropriate conduct (Foxman, 2009).

Two years after Foxman’s article, the Ontario College of Teachers addressed the ethical issues related to social media in a professional advisory. In the advisory, suggests that when electronic communication and social media can be used with caution and professionalism, it can be effective (Ontario College of Teachers, 2011, p.3). The article clearly outlines the differences between the private and professional life of the teacher. Although educators have private lives, their conduct off-duty cannot be ignored (Ontario College of Teachers, 2011, p.3). Under Canada's Supreme Court ruling, teachers' off-duty conduct, though not in direct relation to their students, reflects on their suitability to teacher (Ontario College of Teachers, 2011, p.3). The professional advisory warns members about the vulnerability of practitioners engaging in electronic communication. Casual dialogue is encouraged in social media, but members must always be aware that no information should be shared in any environment that they would not willingly and appropriately share in a school setting (Ontario College of Teachers, 2011, p.4). Behaviours listed by the Ontario College of Teachers (2011) that would warrant disciplinary measures include:

1. Inappropriate electronic communication with students, colleagues, parents/guardians and others.
2. Sending graphic sexual materials electronically to students.

3. Using school equipment to access, view or download pornography, including child pornography.

4. Luring students and non-students via the Internet, as defined by the *Criminal Code*. (p.5)

This article, however, does not merely list the potential harm of electronic communication use, but provide some ways to minimize risks to members: interact with students appropriately, understand privacy concerns, and act professionally (Ontario College of Teachers, 2011, p.6). This advisory, rather than deter me from exploring the use of electronic communication and social media in schools, has encouraged this researcher to continue investigating whether the issue of the lack of electronic communication use within an elementary school classroom is due to ethical considerations, or instead, a result of the different nature of technology use from one level of education to another.
Chapter 3: METHODS

This paper will focus on a comparative analysis of qualitative research of multiple teachers working in the York Region District School Board. The scope of the paper will include teachers that have fully integrated electronic systems within the classroom. This research will look at the different experiences of the teachers and how electronic systems can be extended to teacher-student communications. Further to looking at the extension of electronic systems such as Moodle to include communication between teachers and students, this paper will examine the ethical implications and limitations of electronic communication, as outlined by the Ontario College of Teachers.

Research Questions

There are two main research questions in this study:

- What is the role of technology and electronic communication within elementary school education?
- Is the culture of technology really present within an elementary school setting as compared to high school and post-secondary/adult settings?
- Can the same electronic communication utilized in post-secondary education be effectively implemented in elementary schools, fostering a strong, positive teacher-student relationship?
- How can teachers effectively utilize electronic communication while adhering to ethical standards?

Sub questions of interest in this research are:

- How can teachers prevent ethical complications of using electronic communication with students?
Participants

For this research, a group of three participants were recruited. The teachers were recruited from schools in a large district school board. All teachers had experience with the use of electronic communications and systems. One teacher was very experienced with the integration of Moodle in the classroom. Of the participants in this study, one was a union steward for the school, and had comprehensive knowledge of the ethical limitations and considerations surrounding electronic communications. Another teacher was a certified special education teacher that worked in partnership with the homeroom teacher.

Data Collection and Instruments

Data for analysis was collected through two interviews scheduled within the school year. The participants were notified of the meetings and the meetings were conducted during lunch in which the teachers were not occupied with the class. The information collected was recorded with an electronic device and was transcribed and coded at a later time. Data was collected in two sessions that were each no longer than half an hour. Interviews with each teacher were conducted within two weeks. Sample interview questions can be found in Appendix B.

Data Analysis

As an intercultural qualitative study, I analyzed the data collected through identifying both common and unique experiences of the participants. As soon as the interviews were conducted, I looked at them all to identify areas of similarities and differences between participants. I considered the perspectives of the participants on the ethical considerations of using electronic communication with students. In addition, I referred to the expert opinions of the teacher who is also the Union Steward at the school, attaining deeper insight on the standards of the Teachers' Union. Further, I looked at whether there are differences due to the participants'
current integration of electronic systems in the classroom as well as suggestions for the next steps in the integration of electronic communication in Ontario Elementary Schools.

**Participant Consent and Ethical Implications**

This research follows the ethical review procedures as required by the Master of Teaching Program. All of the participants in this study were given a consent form (Appendix A) that outlined the premises of the study and highlighted the purpose of this research. Further, the participants were informed of how the data collected will be analyzed and that all recorded interviews and information will be stored securely for analysis. All participants will be anonymous and their privacy will be guaranteed. After the research is completed, all data will be destroyed to ensure participants' private information will be safe. There were no ethical implications as there was no deception in the study and all participants were not required to proceed with the interview if they choose not to. The participants were notified that data analysis will be purely academic and will not affect them in any way, personally or professionally. At any time during the study, all participants were allowed to end the interview and withdraw from the study with no repercussions.

**Limitations**

A limitation to the study is its relatively small sample size. Due to the limited amount of interviews that can be done within the time constraints of my degree, the power of the study will not be as strong as I would have liked. This limitation will not allow me to make generalizations derived from the results of my analysis.

Another limitation is the large scope of the research questions. Not only will the research be focused on the nature of electronic systems and communications within the class on teacher-
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student relationships, the paper will also explore the ethical limitations of electronic communications as outlined by the Ontario College of Teachers.

A final limitation to the study will be from not including the voices of teachers who have already integrated electronic communication fully in the classroom. Although I will be able to interview teachers using electronic systems like Moodle, the study would benefit from interviews with teachers who have already extended the use of electronic systems to communicate with students, allowing for powerful analysis through comparative experiences.
Chapter 4: FINDINGS

This chapter will elaborate on the findings gathered from the interviews conducted, which followed the questions and guidelines outlined in the Methodology chapter. Three teachers were interviewed for this study with two teachers being interviewed during the same interview session. This chapter will be thematically organized:

1) Teacher-student Relationship
2) Technology Use in the Classroom
3) Limitations of Electronic Communication.

In order to clearly understand the findings of this study, one must first understand the background of the participants and know who they are. Three male participants were interviewed for this study: Mike, Steve, and Andy. The fact that all participants were male was not a deliberate choice but merely coincidental. All three participants have been teaching for 10 years or more and have experience teaching students within the Junior division (Grades 4-8). Currently, Mike teaches a Grade 4/5 split classroom, Steve teaches a Grade 7/8 split classroom that is also integrated, and Andy is the Special Education Resource Teacher (SERT) that teaches in partnership with Steve in his classroom.

Teacher-Student Relationship

Before the interview, all participants were asked to answer some preliminary questions that included two questions rating the quality of the teacher-student relationship in their respective classrooms. Within Mike's classroom, he rates the level of teacher-student relationship a 7 or 8 out of 10, while both Steve and Andy rated their teacher-student relationship at a 9 out of a possible 10. With the knowledge of their perception of the teacher-student relationship within their classrooms, the interview probed further as to how this relationship was built and fostered.
In Mike's classroom, he sees a positive relationship with his students from, in part the way they respond to the use of technology as well as his own unique teaching style. With a positive connection to the teacher, Mike has noticed that the students are more attentive and more connected, because they want to do better in class. When asked about how he fosters this positive relationship with his students, and whether or not this was done through electronic communication, Mike's answer was, "I think the idea of being able to communicate with the student in another environment is theoretically a nice idea". Further, he elaborated on how it would be useful to take advantage of how much technology has become a part of the students' lives, and the fact that the students' would be able to have access to their teacher would be cool in their perspective. Mike also elaborated on how the teacher-student relationship affects the learning of the student. He believes that students are able to learn in spite of their teacher, but particularly that "they learn well when they have a good relationship with their teacher." This positive connection would lead to the engagement he mentioned that would lead to better learning: being attentive, being connected, and being driven to do better. Mike also continued to provide information on what the teacher could do to positively affect this relationship, “I think, certainly the curriculum that is being offered, but aside from that, because everyone has to do the same curriculum, I think an understanding of how children behave, and how children function. So child psychology for one, but just being able to read the kids and understanding what their needs are, certainly helps.”

With the same positive perception of the teacher-student relationship within their classroom, Steve and Andy provided a different perspective on how this was evident as well as how this relationship is being fostered in within their classroom on a daily basis. Firstly, Steve emphasized the fact that the relationship between his students and himself was not a personal one
but professional, "My goal is the whole child so it is as much about their well-being, safety, mental health as their academics." As part of this professional relationship, Steve also highlighted a key quality that drives this reciprocal connection with his students, "You try to keep it as a give and take. You take it as a democracy so that students feel comfortable coming to talk to me and they have a say in what goes on in the classroom in terms of learning." In addition to demonstrating how the relationship between teacher and student is fostered within the classroom, Steve also provides an insight on the connection between teacher-student relationship and student learning,

It comes from Maslow's Hierarchy of Needs. For me, it is making them feel comfortable to take chances and if they don't feel comfortable then they are not going to grow. It is not just about safety but it is also about inclusion and about having a team atmosphere. It is not about directing absolutely everything, but it's about being fully connected in every way. If the student is not connected with his teacher then they are less likely to do as well. Also, Steve elaborates on other factors that affect the teacher-student relationship within his classroom context,

I think it comes down to how you manage the classroom in that they respect a teacher who is asking for respect and has a system in place. I think it takes months to build and you kind of have to be tough about it in order to develop a framework or playground to develop a relationship from there. If you are coming in to just build relationships then you are going to have a hard time without a foundation. The foundation is something that they can go back to from procedures to personality.
Andy, as the SERT within Steve's classroom, had similar experiences and insights on the nature of the teacher-student relationship in their classroom. However, Andy was able to provide a special education perspective on the teacher-student relationship.

The same questions were asked of Andy regarding the nature of the teacher-student relationship. Similarly to Steve, Andy had a "very good working relationship" with his students. However, the main difference with between the two is the fact that Andy interacts with his students beyond the one school year the students would be in Steve's class. As Andy is the special education teacher, the teacher-student relationship must, "establish rapport early on and it lasts more than a year." Further, in order to make this working relationship last, Andy states, "We must try to have a system so that they know when they are interacting with me they are going to get consistent answers." When asked about the connection between teacher-student relationship and student learning within a special education context, Andy provides a detailed insight on the issue,

We want to take a student who is struggling academically because there could be a number of factors for that. We could have a learning disability, medical condition, or social condition or a number of factors every day. We know to overcome or compensate for those factors is one on one instruction- the only way where you can show meaningful growth academically in a student who is prepared and that is because when you meet with a student one on one you can compensate for those. Your teacher's ability to look after the well being of an individual is diminished as the class size gets larger. Even with small group instruction, you can't guarantee your success rate of what students can show academically, so that's why we built that into our program.
Posing the same question about factors that affect this teacher-student relationship, Andy responds in equal detail,

    Daily factors, familial and peer, trying to build small collaborative groups into our larger class setting so that those who are performing lower academically can benefit from what we call social learning. Because we have been together for more than one year, we notice even after one year we need to change the classroom dynamic. For example, last year they weren't comfortable expressing themselves out loud as this year's bunch so we were able to compensate that relationship with the students so we can get more answers from them because they are more willing to do that.

After attaining solid answer from the participants on their opinions regarding the teacher-student relationship between their students and themselves, the questions began to move towards the use of technology within their classroom.

**Technology Use in the Classroom**

    Although all three participants were very competent in their use of technology within the educational context, the level of experience did vary somewhat from one teacher to another. Mike has integrated technology in his classroom seamlessly and has a focus on gamification. There are ways in which he has incorporated games into his teaching of concepts. For example, he would play a game called Civilization, which deals with the evolution and politics of running different nations, within his Social Studies lessons. Another such instance where gaming was utilized is through the playing of a story-driven game that allows for teaching narration and story development. In contrast to Mike’s classroom, Steve and Andy were no less proficient in their use of technology, but used it in a different way. In their classroom, Steve and Andy utilized
technology in the presentation of material both during and outside of class. For example, Steve utilizes his tablet in the presentation of videos and other media that compliments his lessons. Further, both Steve and Andy populate and maintain content on different Web 2.0 programs such as Moodle. Many assignments, homework, and quizzes can be accessed on their Moodle site outside of the classroom by both students and parents. Having attained preliminary information on the participants’ proclivity to technology and its use in the classroom, they were further questioned specifically on how technology was used within the classroom in the realm of electronic communication.

Within Mike’s classroom, technology is continuously used in order to advance literacy, math, social studies, and science. However, he also uses electronic communication to connect with parents,

I think as a means by which assignments are posted so that parents can have access to them so they are not… we don’t get that I forgot the sheet at home or I forgot that sheet at school, or I don’t know what it is, so it takes away, or, it does take away the responsibility of the child to communicate to the parents, but it also allows the parents to circumvent the children who are being troublesome.

When Mike was asked whether he would be inclined to use electronic communication with his students, he proposed a hypothetical situation,

I think I'd be inclined to use it with older kids, I think I'd be inclined to use it around a specific assignment, or a specific event or unit. I think at this stage I would use it as the technology itself. For example, let's try to do this for this week, and not to do it as a communication piece for the whole year, but just say, for this unit I think it's important that we try to communicate with each other,
so let's get some forum and discussion going, or some blog posting, so everyone can post and communicate. Personally, that's where I'd like to see it, but I don't know I'd want to do it all the time.

The same interview questions regarding the use of technology with the classroom were posed to Steve and Andy, both of whom provided another perspective on how they have incorporated the use of technology within their classroom. The intricacies of how technology can be utilized in communication and the fostering of a strong teacher-student-parent relationship were detailed by Andy,

I'll give you examples of how technology can improve relationship with student, parents, and to an extent teachers can communicate with each other. With a special education perspective again, introducing technology to the student. There are some students that may have difficulty with verbal expression and may be more comfortable with their written expression and trying to elicit answers from a class in a large class setting, that student might not be willing to participate as much but if you throw the same question up on, say Moodle, and in a chat room or forum and you ask students to answer that question you may get volumes from a student that otherwise wasn't talking much at all. We have specialized programs that help them with their reading comprehension and interacting with these types of programs they can unlock their own identity as a reader. I've seen kids who have been unable to read, experience reading for the first time with technology and it had a huge impact. We use technology with parents to communicate quite often and parents are always telling me as I'm getting feedback from them that this is something that they want and
something that they enjoy. They like interacting on a regular basis with the teacher in a convenient manner and they like knowing what their kids are doing in the classroom.

Steve and Andy utilize Moodle extensively within their classroom and once Andy proceeded with the topic of technology and its connection with communication between teacher, student, and parent, I directed the discussion to Steve who was able to provide a piece on how Moodle had evolved as a tool not only for information to be communicated with students but also parents,

I realized in a meeting last week that the Moodle that I created for Geography, parents were looking at it too and I realized I didn't have anything on there to guide them through this so I added a welcome to Geography for parents. These are all learning roles and this is where you can find information on the curriculum. These are the major lessons and major headlines of what I will be covering.

Directing the conversation towards the use of electronic communication specifically, the interview posed questions regarding the use of electronic communication outside of the classroom setting as well as their thoughts on this issue. Steve answered through the use of his classroom blog as an example,

I know with the blog last year, I was getting notifications right to my phone where the students had questions and I really like that. We talked about getting the blog back up but over the summer we had an issue of people signing onto the blog whom I didn't know and I didn't like that. In terms of getting not so
much homework, but in terms of updates that we were going to be at the ROM, I didn't like that. It should be an education safe blog.

The conversation began to shift towards the limitations of electronic communication and technology use in the classroom, therefore, the interview shifted towards that issue.

**Limitations of Electronic Communication**

Building on the problem that Steve encountered trying to incorporate the use of blogs in this classroom and the security issues that came up, Andy added his thoughts on the problem of having conversations with students outside of school hours,

I think we are getting into shaky grounds when we are asked how students and teachers can interact after hours using technology. I know I certainly have and do engage in email communication with parents after hours and those questions are usually they want some assistance as they are in the process of doing homework and in that case I don't mind. I think we want to encourage students to use the web independently and we have web-based sites of our classes for Science or Geography and we have that set up so students and parents can visit to enhance their skill so teachers don't have to be directly involved.

Steve provided similar insights on electronic communication with students when he was asked whether he was more inclined to do so or not,

Probably not inclined because space is allotted for homeroom where students can come to ask questions and it becomes an independence skill and thinking for themselves and they don't know what the homework is. If it is a clarification about a question it generally can wait until the next day and even if there was a test it can still wait until the next day. The problem becomes if they have access
to that then they can forget about planning and be like, 'hey I can just ask the guy whenever I want', and so they are going to run into problems in high school and university. I mean being a good listener is important to success and being organized. You need to prioritize your homework and we need to practice their skills to get them ready.

Steve brought up an interesting idea of the lack of independence and planning on the part of students if they are given the crutch of having access to their teacher outside of school. The interview directed the conversation back to Andy in order to gain an understanding of whether this was the same within a special education context,

I agree that we need to encourage students to have independence as they move closer to high school. We have identified that these students may have difficulties in organization so this task may be more difficult for them to develop this skill. So along with other ways to stay organized such as their agenda, we have built in time and ways for them to keep track with homework by taking pictures with iPads and setting calendar software. I do send out email to a distribution of select parents and these are the parents with kids who have identified difficulty in this area and includes a calendar with due dates and like access to our Moodle so if parents or students have any questions they can click on the Moodle link just to give those students a little extra help.

After illustrating some of the limitations to electronic communication that could potentially increase student reliance on the accessibility of teachers, the interview moved towards looking at the advantages and disadvantages that the participants identified in relation to the use of
electronic communication with students, specifically instant messaging. Steve provides a clear stance on this issue,

I'm trying to think of an advantage, to me it just seems like they are taking more ownership of you and your time. And again it links back to your previous question in that it almost becomes helicopter teaching where they can be anywhere and they could ask me questions at anytime. Other than being bombarded on my personal device, and if I wasn't being bombarded if I let it stack up on my phone and come Monday morning I wouldn't have time to respond in time because we need that time to set up. I don't see a positive unless I was paid to respond to them.

Andy provides a somewhat different perspective on the use of electronic communication and whether there are advantages or disadvantages to their use,

I think there could be advantages for teacher, depending on the classroom environment. If we are thinking of an elementary, a larger scale class where there is lecturing then perhaps this could be a way to interact more meaningfully to students who were listening to the lecture. But in the elementary school class, students have to the opportunity to raise their hand at any time. That being said, I have used the chat room feature on Moodle where students can use it to interact with teachers and also with themselves where a question goes up and students can post responses to those questions. Students are learning to talk or to write appropriately to one another. If they are writing to each other, then their writing tends to be even more precise because they want to show each other how good of writers they are so there is a bit of
peer pressure. I have used those here particularly during novel studies. I don't think this is a tool we would regularly use, but we would use it occasionally to encourage interaction.

Having received information from both Steve and Andy on the different advantages and disadvantages of using electronic communication, the interview move towards the ethical aspects of using technology as a means of communicating with students outside of the classroom. Steve provided an interesting perspective on this matter,

One would be how equitable it is because there could be students who don't have as much access to technology. I am assuming everybody has a phone in the twenty-first century. I could see world where that would be kind of cool if they all had access to it on school property and it could take the things we do to a whole different level where communication is really instant, more instant than a Moodle but using the same framework as a Moodle that could be really cool. For example, 'hey here is my information and here is my file' and I could respond to them wherever I am.

Andy provided a final thought to the limitation of electronic communication within the classroom by bringing up the important feature of built-in protection in programs used in the classroom,

The nature of the communication needs to remain professional. Teachers must be cognizant of the environment in which it is in, as well- as teachers who are wise and the medium itself in terms of the websites that are used. For example, Facebook or using your phone to message back and forth that may not be the best way of going about communicating with your students even though those
tools have many interesting apps for the classroom. To choose to use Web 2.0 tools such as Moodle—things that are sponsored by the Board where there are built-in protections, those kinds of tools.

In addition to the information provided to the research by Steve and Andy, whose expertise give credibility and reliability to the examples provided, Mike, who is also the Union Steward at his school, gives another unique look into the limitations of electronic communication in the classroom. Although Mike utilizes technology readily within his classroom, his response to whether he would communicate with his students electronically outside of the classroom room is clear,

I think teachers are running the risk of becoming too involved with their kids outside of the classroom. And even the Ontario College of Teachers cautions against that. We're not supposed to legally communicate with kids directly in terms messaging, Facebook, and all that stuff.

Clearly, Mike outlines a major deterrent to teachers who may have considered exploring the possibilities of utilizing electronic communication outside of the classroom. Further, despite the advantages he sees in parents and students having access to teachers outside of the classroom, Mike points out that,

It's like the same thing as trying to access a doctor at 11 pm right? We have ways in which we do that and with the Internet most problems and challenges that a student faces can be solved with parental help and some work on the Internet, as opposed to directly given to the teacher.

Mike continues to point out that even with certain Board-approved sites, electronic communication outside of the classroom can prove uneasy,
I think there are a lot of pitfalls to electronic communication, and I think, either you just make a blanket statement and say ok whatever goes and the teacher isn't responsible, but, they are going to be held accountable, right? They are the moderator, they are the one who is facilitating this Moodle or this website, and something gets posted, the teacher is culpable, but if say, alright everything goes, and the teacher isn't responsible, then I think it'll be a little easier, but no, you can't do that.

Probing further regarding what the Ontario College of Teachers may say about the use of electronic communication and what guidelines may help teachers better understand how they may take advantage of the technology, Mike pointed out something important regarding this issue,

Well there is nothing set up right now, that is an official guideline for when to talk, what to say, how to say it, there is no parameters about when the kids can communicate or the parents can communicate, things can be said online that are misconstrued, especially with younger students. There is sarcasm, there is all sorts of things like that, and there is just the conversations that could extend off of, the main question that fall into areas that would otherwise be dangerous for a teacher, the teacher would not contact a kid, right? But if they did because they want to follow up, and even a well meaning teacher, the parent could say, well why are you messaging my kid, you know, at night, there are too many dangers.

When asked whether he thought this was the main deterrent for teachers not to use electronic communication, Mike believed it is a part but also, "I'd like to think that teachers have a life and it doesn't involve, I am instant messaging, or Facebook messaging their own time." To continue
the conversation on electronic communication and the dangers surrounding its use, Mike was then asked whether he believes it can happen through a centrally controlled program where messages and conversations can be monitored and checked for content. Mike provided an answer that demonstrated the limitations of such programs,

So, you are putting, you are making a big brother statement. If someone else was watching I say? That doesn't make it any better, I think it is just too dangerous, unless, and even then, how do you install something that would say, you can't say this word or you can't say this phrase. I mean there is no right way or wrong way, and things will get misconstrued anyways, but to have a third party on top of that, kind of moderating it and then pointing a finger later, an electronic finger later and say you said this, I don't think that's going to be helpful.

Similarly to Steve, Mike also believes that the idea of being able to communicate with students in another environment is a theoretically nice idea, but the potential dangers surrounding this use may be too much to overcome:

To bring it outside of just those hours, I think any kind of communication outside especially something that is down on paper, or technically in paper, in text, is potentially dangerous. But, the idea is great. That you can just have that kind of access, so on one side I think communicating with the kids especially nowadays with the kids’ perspective but from a teacher’s perspective I just don’t see any plus about it, no matter how cool it sounds.

In an apt summation, as the interview drew to a close, Mike concluded with a detailed example that clearly illustrates the limitations of electronic communication and the pitfalls that teachers
can face while engaging in communication outside of the classroom setting, specifically within the realm of instant messaging:

Listen, I think emails are a little different, but you are talking about instant messaging, right? And the idea that, you know, let’s say student A, happens to catch me on my computer, and I am there and I answer her, and then student B comes 10 minutes later, and I am gone, it’s like, ‘hey how come you got access and I didn’t?’ And what if all 28 kids ask at the same time right? I mean, really? You have mail and you have all these messages showing you their work, and then, well, there’s my evening. There’s tomorrow evening too because I can’t get through. So you spend six hours and then you have to spend another. A teacher and I was just talking, and she was asking about the year I tried to do all the marking electronically, and the kids were submitting all their work electronically and it was the same amount of work, but it just felt like a nightmare, because it was just all electronic, and it’s like, you’ve got 28 emails, then you’ve got follow questions, and then, you know, you mark, then you submit it, how do you keep track of that, so I just stopped it. So the email… maybe? The idea that, even then, like am I obligated to respond to an email? I know parents email me and it’s like well, ok that’s fine, because I’d rather email than talk on the phone. So I’m cool with that, but if the kids started to email me with questions… I remember a kid, he got hold of my email, I don’t know how, it was a long, long time ago, and he was asking all sorts of questions and I am like, I don’t feel comfortable talking to you. Like I don’t know whether it was email or instant message or something, but he got a hold of me, and he was
talking to me. He was a little kid, grade 4, 5, 6 and I didn’t feel comfortable. I didn’t want to spend my evening answering questions.

It is clear that all three participants utilize technology and electronic communication, currently or historically, in a multitude of ways. There are some implications that can be drawn from the findings regarding the teacher-student relationship, the use of technology in the classroom, the limitations surrounding its use, and the connections between the teacher-student relationship and electronic communication. These implications will be further explored in the next chapter.
Chapter 5: DISCUSSION

Introduction

Within this section, the findings in chapter 4 will be discussed and analyzed in accordance with the way in which the topics were organized in the findings:

1) Teacher-student Relationship

2) Technology Use in the Classroom

3) Limitations of Electronic Communication

In addition to the three aforementioned topics, this chapter will also draw connections between the teacher-student relationship and use of technology in the classroom in a fourth topic:

4) Connections Between Teacher-student Relationship and Electronic Communication

Teacher-student Relationship

All three participants in the study rated their teacher-student relationship quite highly and all believed that there are strong connections between the quality of the teacher-student relationship and the performance of their students. This aligns with research that looks at the nature of the teacher-student relationship (Alderman & Green, 2011, p.39). It was clear from the findings that teachers found students to be more effective as learners if they were within an inclusive and safe environment that was fostering a positive teacher-student relationship.

Furthermore, the findings highlight some key features to a successful teacher-student relationship that revolves around the idea of reciprocity. There needs to be an atmosphere of equality where both the teacher and the students have a say in how the classroom should be run. Steve clearly outlines this point when he talks about the democracy that exists within his classroom. Not only is having a positive teacher-student relationship beneficial for students, but these benefits extend to those students with identified disabilities. This fact is emphasized by Andy who has
experienced, first-hand, the advantages of a positive teacher-student relationship for his special education students. His experiences also follow pertinent research, which have found that students with learning and behavioural disabilities require the coupling of both, "traditional focus on instruction, transferring knowledge, and developing students skills," and "the examination of nonacademic factors such as interpersonal relations and the social side of schooling" (as cited in, Alderman & Green, 2011, p.39). Clearly, the participants within this study have fostered an effective teacher-student relationship that has benefitted the learning and progress of the students within their classrooms.

Another issue brought up in the research pertains to the knowledge that the teachers must possess in order to facilitate a positive teacher-student relationship. The participants were aware of the need for the teacher to possess knowledge of how students behave as well as key concepts in child psychology. In order to connect with their students, the participants pointed out specific pieces of knowledge that they have utilized, such as Maslow's Hierarchy of Needs. In order to truly understand the external factors that affect the students within the classroom, the teacher must first take it upon themselves to attain knowledge of how students learn and what they require in order to function holistically. The participants demonstrate a high level of "the expertness social power base" (Alderman & Green, 2011, p.42) that indicates the teachers' willingness to listen to a student, and provide additional help with academic and personal issues. There is an obvious concern for the students and the different factors that may impact their learning, and a lack of dismissal of issues that could be deemed unimportant or unworthy of attention. This can lead to students responding positively to the teacher as well as being more receptive to classroom management techniques employed by the teacher (Alderman & Green, 2011, p.42). As a result, with proper classroom management, there can be heightened levels of
student attention, resulting in effective learning and potential for improved academic performance.

**Technology Use in the Classroom**

The use of technology was evident after interviewing all the participants and gaining an insight on how technology plays a part in their teaching practices. Evidently, the teachers interviewed in this study were all competent in their usage of the technology that is available to them in an educational setting. However, the most intriguing finding surrounded their use of technology for the purpose of communication. A commonality between all three participants was their use of electronic communication to contact their students' parents. This provided an effective means for connecting the different stakeholders in a student's education and informed the parents--those who are most able to take over the education of the student outside of the classroom. This communication between teacher and parent can be accomplished in two major ways. One of these methods outlined by the interviewees was direct communication. The exchange of emails provided parents with access to the teacher directly and at times convenient to the parent. Furthermore, this almost instantaneous access to teachers can allow for parents to effectively assist their children when they are having troubles with completing work from school. Although it was important to gather information on how direct electronic communication was utilized in the classrooms of the participants, it was even more powerful to discover that there was indirect communication happening between teacher, student, and parent in the classrooms of the interviewees. In Steve and Andy's classroom, not only were parents able to access the teachers through direct emails, they were also able to easily access the Moodle website that the teachers set up. In this way, without having to take the time to reach the teachers personally, the parents are able to read the relevant information provided by the teachers regarding homework.
assignments. This way, the materials the teachers deemed important to the completion of the assignments were easily accessible, reducing the effort of the parents in locating the essential knowledge to assist their children in completing their task.

Apart from the communication that was taking place between teachers and parents, the participants also talked about the different ways in which electronic communication was occurring in their classrooms between teachers and students. The transference of content was clearly facilitated through the use of gamification in technology. Using computer games as a way to demonstrate content knowledge is a communication process between teacher and student as the ideas are presented in a way that students can relate. Furthermore, the usage of technology provides students and teachers with another tool through which they can communicate important messages and content to their students. Not only can technology break generational barriers between the teacher and students, but the use of technology in the presentation of content material can help to support different intelligences, explored by Gardner (1993), in students. Besides communicating with students through traditional text and work, teachers can now access a plethora of different videos and diagrams that provide students with an additional visual component to their learning. For students who process information visually, technology can truly provide a powerful tool for teachers in the education of their students. On top of being able to present information within the classroom through technology, the indirect communication of information allowed students to further benefit from the learning experience, even outside the classroom. As Steve and Andy pointed out during the interview, the use of Moodle and the presentation of material on the site allowed students to use that information and develop independence in completing their assignments outside of the classroom. The electronic
communication may not be direct, but was no less efficient in communicating vital information that students require in understanding class expectations and success criteria.

Finally, the use of electronic communication can have direct impact on the academic performance of students. As Andy pointed out during the interview, students who may tend to shy away from expressing their thoughts publicly in class can find an electronic space outside the classroom a great way to comfortably share their ideas to the class. Furthermore, the availability of assistive technology can also allow students who may have learning difficulties receive the help they need in order to begin tackling these barriers to their learning. Clearly, there are many advantages to the use of technology in the classroom, including the addition of electronic communication as a tool for student learning.

**Limitations of Electronic Communication**

A key element to the findings in this study was the inclusion of a participant who, in addition to his capacity as a homeroom teacher, is also the Union Steward at his school. This piece was important as there are union limitations to the use of electronic communication that affects the overall practices of all teachers. One such policy prohibiting the use of social media tools between teachers and students. Therefore, this immediately reduces the access a student has to their teacher and vice versa. Another point of concern brought up during the interview was the idea of misconstrued messages. As part of the nature of electronic communication, there is a lack of emotional and tonal expression within the dialogue. As a result of this, many messages, once taken out of context, can become something that can be misinterpreted. Furthermore, the idea that a teacher may be communicating with a student outside of school can bring concern from parents who may wonder why there is a need for this kind of conversation afterhours. As Mike pointed out in the interview, even the most well-meaning teacher can be misunderstood when
conversations happen outside of the classroom. There is much concern with ethical issues surrounding the contact of teacher and student apart from the time spent at school which led this researcher into the assumption that the major limitation and deterrence for teachers in using electronic communication to be due the issues of inappropriate contact with students. However, the research and interviews conducted for this study found something that pointed towards another factor that limited the use of electronic communication outside of the classroom: teacher privacy.

During the conversations had with the participants, a common issue came up when the topic of using electronic communication outside the classroom was breached; teachers should and are entitled to their privacy and time outside of school hours. Both Steve and Mike talked about the idea that they believed electronic communication outside of the classroom seemed to allow students to take ownership of the teacher’s time that they should not be devoting to work. Another problem that relate to the use of electronic communication mentioned by the interviewees is the mere logistics of maintaining fair and equitable electronic communication. In order to provide equal access to the teacher for all students, teachers would be required to answer all messages from students which could dominate a teacher’s evening, something that would not be fair for the educator. Obviously, there are factors that may influence the use of, or lack thereof, electronic communication outside of the classroom setting.

**Connections between Teacher-student Relationship and Electronic Communication**

Having looked at the information provided by the participants in the three previous topics, this section can begin to connect and derive conclusions pertaining to the connection between teacher-student relationship and electronic communication. The participants have all brought up the idea of the lack of a need to bring the conversations between teacher and student
outside of the classroom setting. It is clear that the teachers interviewed have all created and maintained a positive teacher-student relationship, yet do not have a significant level of direct electronic communication outside of the classroom. There are many examples of indirect communication through the use of blogs, Moodle sites, and games, but not a means of instant messaging that allows students to access the teacher outsides of school hours. Herein lies the issue of the nature of elementary school education compared to that of high school and adult schooling. Within an elementary school setting, the homeroom teacher spends a full day with the student and has sufficient time to discuss problems that may surround assignments and issues in class. However, within high schools and adult institutions, the contact between teacher and student is significantly lower, thus, there is a high proliferation of electronic communication outside of class, whether through instant messaging within a board approved site such as Moodle chat rooms, or emails and class management programs such as Blackboard or Desire2Learn. This is not to suggest that electronic communication, specifically direct messaging can be neglect or written off. There is much that can be done in the usage of such technologies in perhaps, task-specific communication, as suggested by Mike. There is a potential for the effective usage of direct electronic communication with students as long as there are parameters set up with regards to when it can be used and the content of the conversations. As long as teachers are able to maintain a specific goal for the use of electronic communication outside of the classroom, there are still advantages to this technology within the realm of education. The teacher-student relationship may not require electronic communication to exist and be successful, but there are certainly ways in which the efficiency of communication can be facilitated by its use.
Implications and Recommendations

As a researcher, this study has brought to my attention the need to truly look at the nature of the teacher-student relationship between elementary school students and their teachers. Evidently, there are many differences between the qualities of an elementary school teacher-student relationship to that of a high school or adult educational relationship. Having found how elementary school teachers maintain a positive teacher-student relationship, the methods in which a high school and adult educator utilizes in the fostering of a teacher-student relationship, and indeed, whether there is a teacher-student relationship to be had in those sectors, begs further exploration. Furthermore, the ideas attained on how electronic communication and technology can transcend the mere role of facilitating conversation, but rather allow for better content transference and allowing for better student learning, require more examination. Finally, the research gathered surrounding the limitation of electronic communication can be extended as there is much focus on the ethical boundaries stemming electronic communication. However, this study has found that it is more a logistical and personal issue of teachers balancing equity and their own private time that is a major barrier in the full integration of electronic communication outside of the classroom.

As a teacher, there are several things that can be extracted from this study that will be important and practical from a personal standpoint of a teacher as well as the educational community as a whole. A major implication resulting from this study pertains to the use of technology and electronic communication within the classroom as well as without. In pre-service education, especially in the field of ethical research, there may be many deterrents to beginning teachers who may be contemplating the use of electronic communication in their own classrooms. There are indeed many dangers that surround its use, but this technology can also
provide powerful tools for students to use that will enhance their learning. Furthermore, there are advantages regarding the use of electronic communication and maintaining a positive teacher-student relationship, which will benefit the academic performance of students. Despite the many cautions that one must take in order to effective utilize electronic communication, there are a few simple recommendations that can be derived from this study to aid its implementation. Firstly, a teacher must set clear guidelines that will regulate the use of electronic communication outside of the classroom. For example, times in which the teacher will be available outside of school to answer messages can be outlined for students so those who do not access the teacher during those times can accept that the teacher may not answer their messages. Secondly, the content of the conversations must be regulated. The students must understand that the questions and messages sent to the teacher must pertain to a specific task or assignment and that the conversations must fall within these established parameters. Thirdly, complimentary to direct electronic communication, it is important to also incorporate indirect electronic communication so that students may have different avenues through which to attain information they may require outside of the classroom. For example, the utilization of Web 2.0 sites such as Moodle can help teachers communicate information to students that does not have a time limitation or require the presence of the teacher. Finally, and potentially most crucial in the use of electronic communication outside of the classroom, is transparency. Due to existing parameters regarding the content of the messages, the forums used should be accessible to all students as well as parents. The person sending the message may remain anonymous to protect the sender, but the content of the messages should be open for all members of the classroom to read, including the parents of the students. Having parents take an active role in the usage of electronic
communication can go a long way in maintaining a safe, and approved means of conversation even outside the traditional classroom setting.

**Further Study**

After analyzing the findings of the research and looking at the implications of the study, there are several things that require further attention in order to continue examining the relationship between the use of electronic communication and the teacher-student relationship. One key issue that should be given further attention regards the inclusion of female participants that may provide a unique and different perspective than that of the male participants interviewed for this study. Although there are no clear indications that the results should differ with female participants, it is important to remove the variable of gender in order to increase the validity of the research results. In addition, as there is a gap between the use of electronic communication between adult, high school, and elementary education, an opportunity exists in utilizing the work in this study to discover the similarities and differences of teachers within the two other spheres of education. There is powerful work to be done in the exploration of how high school and adult educators feel about the use of electronic communication in relation to how they perceive their own teacher-student relationships. A final important next step that has developed from this research is the extension of the study to two other main shareholders in education: students and parents. There were clear indications that teachers communicate extensively with parents through electronic communication, thus, acquiring their perspective will strengthen one's knowledge of electronic communication in the classroom. Moreover, the perceived level of the teacher-student relationship within this research comes from the teacher's opinion. As a result, studying the students' view on these same relationship will bring to light the true nature of the teacher-student relationship and therefore the effects of electronic communication on this connection.
ELECTRONIC COMMUNICATION INTEGRATION AND ETHICS

References


ELECTRONIC COMMUNICATION INTEGRATION AND ETHICS


ELECTRONIC COMMUNICATION INTEGRATION AND ETHICS


Appendices
Appendix A: Letter of Consent for Interview

Date: ________________

Dear ________________,

I am a graduate student at OISE, University of Toronto, and am currently enrolled as a Master of Teaching candidate. I am studying the nature of the use of technology in education, with a focus on the elementary level, and the resulting effects on the teacher-student relationship for the purposes of investigating an educational topic as a major assignment for our program. I think that your knowledge and experience will provide insights into this topic.

I am writing a report on this study as a requirement of the Master of Teaching Program. My course instructor who is providing support for the process this year is Dr. Clare Brett. My research supervisor is ____________________. The purpose of this requirement is to allow us to become familiar with a variety of ways to do research. My data collection consists of a 30 minute interview that will be tape-recorded. I would be grateful if you would allow me to interview you at a place and time convenient to you. I can conduct the interview at your office or workplace, in a public place, or anywhere else that you might prefer.

The contents of this interview will be used for my assignment, which will include a final paper, as well as informal presentations to my classmates and/or potentially at a conference or publication. I will not use your name or anything else that might identify you in my written work, oral presentations, or publications. This information remains confidential. The only people who will have access to my assignment work will be my research supervisor and my course instructor. You are free to change your mind at any time, and to withdraw even after you have consented to participate. You may decline to answer any specific questions. I will destroy the tape recording after the paper has been presented and/or published which may take up to five years after the data has been collected. There are no known risks or benefits to you for assisting in the project, and I will share with you a copy of my notes to ensure accuracy.

Please sign the attached form, if you agree to be interviewed. The second copy is for your records. Thank you very much for your help.

Yours sincerely,

Researcher name: _________________________________

Phone number, email: _______________________________

Instructor’s Name: _________________________________
Phone number: ____________________ Email: ____________________

Research Supervisor’s Name: ________________________________
Phone #: ____________________ Email: ____________________

Consent Form

I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw at any time without penalty.

I have read the letter provided to me by Arthur Au-Yeung and agree to participate in an interview for the purposes described.

Signature: ________________________________

Name (printed): ________________________________

Date: ________________________________
Appendix B: Sample Interview Questions

Teacher-Student Relationship

1. Do you think there are benefits to a strong teacher-student relationship?
   Probe: -Why or Why not?
   Follow up: -If yes, what are some benefits that you think will result from a strong teacher-student relationship?

2. In your opinion, what are some of the characteristics of a good teacher-student relationship?
   Probe: -Do you think you have a strong teacher-student relationship with your class?
   Follow up: -Why or Why not?

Electronic Communication in the Classroom

3. Do you integrate technology within your classroom?
   Probe: -If yes, in what ways do you integrate technology within your classroom? -If not, why?

4. In your opinion, do you think it would benefit your classroom if electronic communication was integrated?
   Probe: -If yes, what are some benefits you see in using electronic communication?

5. Do you think it is viable for a program such as Moodle, to incorporate messaging as part of its service?

Ethical Considerations

6. In your opinion, can electronic communication be utilized between teachers and students without ethical complications?

7. In your opinion, what are some ways in which teachers can avoid crossing the professional boundary between themselves and their students, while using electronic communication?

8. What do you think are some hesitations from teachers in terms of using electronic communication, which implies some involvement outside of the classroom, and during their personal time?