

RUNNING HEAD: WHAT CONSTITUTES QUALITY?

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*Developing a tool to analyze the quality of computer-mediated communication
forwarded by schools within the Holy Spirit Catholic School Division*

By

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ABSTRACT

Recognizing that student success increases when parents are active participants in their child's education, but that a variety of barriers inhibit their involvement, computer-mediated communication (CMC) offers a potential solution to enable parental engagement in an alternate and asynchronous manner. However, in order to be effective, CMC must be offered in a high quality, meaningful way.

To operationalize the concept of "quality CMC," this study aimed to devise an evaluative rubric to determine: "What constitutes 'quality' computer-mediated communication in the field of education?" To answer this question, the insights of extant literature were used in conjunction with the analysis of semi-structured interviews conducted with staff and parents within the Holy Spirit Catholic School Division.

At first, the intended result of this work was to generate a tool that educators could use to identify and evaluate factors of quality that existed independently of the CMC platform being employed. However, through the research process, and building on the insights of Media Richness Theory (MRT), I found that the characteristics of the CMC platform are, in and of themselves, important tools that can and should be deliberately utilized by schools in their engagement efforts. This finding altered and expanded the evaluative rubric. As a result, additional sections were developed to encourage school administrators/communicators to reflect on and improve practice with the goal of formulating a robust and strategic school communications plan.

CHAPTER 1: INTRODUCTION

Parent engagement refers to the active involvement of parents¹ in their child's² education through interest, conversation, and activity at both school and home. As indicated in research literature on this topic, it is an accepted fact that parent engagement increases student success. However, there are a variety of reasons it is difficult for parents to provide such engagement. For instance, competing demands for time and attention, a sense of intimidation as a result of past negative schooling experiences, or feeling unwelcome because of perceived social disparity, are a just a few of the motives cited as increasing parent reluctance to actively participate in their child's schooling.

Computer-mediated communication (CMC), which refers to communication that takes place via computers, appears to offer the potential for more effective communication between schools and parents, thus benefiting students. Examples of CMC include emails, websites, and social media platforms like Facebook and Twitter. However, to be valuable, CMC needs to be offered in a high quality, meaningful way. This is particularly challenging given the reality that nearly all publically funded organizations face; that resources are limited by available tax dollars and skilled labour, and that technology is always changing and often requires updates or maintenance (McNutt, 2014; Olmstead, 2013).

In the face of these realities, my original intention was to seek a way to both understand and assess, "What constitutes 'quality' computer-mediated communication in the field of education?" By focusing on this research question, I had reasoned that promising, high quality practices could be identified and transferred to emerging technologies quickly and effectively.

¹ To reduce confusion, the phrase "parent" is used in reference to any caregiving adult found within the home (i.e. grandparent, guardian, etc...) who shows an active interest in a child's education.

² For the sake of simplicity, the singular "child" is generally used throughout this document. Even if a parent has multiple children, it is assumed that they would wish to assist each child with their own individual success.

Theoretically, this would decrease the loss of time and resources required to re-establish newly evolving CMC accounts, while minimizing any negative impacts to parental engagement. Further, I had hoped that, by providing a means of quantifying the concept of “quality CMC,” future research could be done to determine correlations between the quality of CMC being practiced by school staff and the level of engagement expressed by parents.

With this in mind, I employed an iterative design and evaluation process to develop a rubric that would allow me to assess the quality of CMC practices being employed by schools within the Holy Spirit Catholic School Division, in southern Alberta. The rubric would be devised by using a qualitative analysis methodology on semi-structured interviews conducted with school staff and parents, coupled with the findings of existing literature. Once created, the rubric would then be pilot-tested on two school social media accounts to ensure its validity and accuracy. Revisions to the rubric would be made accordingly.

My original hypothesis had assumed that quality could be known separately from the CMC platform being utilized. However, based on my research findings, I later determined that a CMC’s platform - though not the only factor that comprises quality - is actually an important element for educators to consider when determining how best to employ CMC methods to increase parental engagement. This realization altered and expanded the intent of the final evaluative rubric. As a result, I incorporated additional components to the rubric to foster administrator/communicator reflection, while still allowing for the collection of quantified baseline data to assess current school communication efforts and identify areas for improvement. The culmination of this work should assist schools in developing a robust and strategic communications plan to support and encourage parental engagement by thoughtfully implementing available CMC tools.

Key Definitions

In order to proceed, it is important to clarify some key concepts. The nuances between parental involvement and engagement will be discussed, as will the variances between information communication technology and computer-mediated communication.

Parental Involvement vs. Parental Engagement

Over the past five years, there has been a distinction made between *parental involvement* and *parental engagement*. Involvement was used more frequently in earlier literature and refers to simple participation by a parent in his/her child's education. "Engagement is [considered] a more active form of involvement," producing deeper and more genuine results (Alberta Education, 2011, p. 2). Goodall and Montgomery (2014) add that, while parents are present at the involvement level, they are more likely to take ownership of their role at the engagement level. They add that there is a spectrum of non-involvement to involvement to engagement that parents will vacillate across for the duration of their child's academic career (Goodall & Montgomery, 2014).

Information and Communication Technology vs. Computer-Mediated Communication

Though often used interchangeably in the literature, there are variations between the phrases *information and communication technology* (ICT) and *computer-mediated communication* (CMC) that bear consideration. ICT is the broader term and refers to any technological medium through which information can be accessed, stored, transmitted and manipulated (Wikipedia, n.d.; Riley, n.d.). Telephones, radios, televisions, computer networks, satellite systems, etc..., would all be considered tools of ICT (Rouse, 2005). CMC is "the process by which people create, exchange, and perceive information using networked telecommunications systems that facilitate encoding, transmitting, and decoding messages"

(December, 1996). More succinctly stated, CMC refers to “communication that takes place between human beings via the instrumentality of computers” (Herring, 1996). Equal to the understanding that parental engagement is an important part of student success is the recognition that CMC has changed the way people interact with one another, influencing communication patterns and social networks (University of Twente, 2010). For instance, recent changes have resulted in large volumes of information being instantly transmitted and accessed, and mobile devices becoming increasingly cost-effective and, thus, ubiquitous (Hinchcliffe, 2011).

Since this investigation focuses on how communication via computers impacts the behaviour of parents, CMC is the more appropriate choice of phrase for this study.

CHAPTER 2: LITERATURE REVIEW

The following literature review elucidates the importance of parental engagement in a child's education, as well as the complicated barriers that make authentic engagement difficult for parents. Consideration of CMC, its place in the field of education, the perceived pros and cons of its implementation, and current research regarding quality CMC practice were also researched. Lastly, information about Media Richness Theory (MRT) was sought to better comprehend the role that the characteristics of platform play in discerning the quality of CMC.

Evolution and Importance of Parental Engagement in Education

Beginning in the 1990s, the influential work of Dr. Joyce Epstein indicated that there was a positive correlation between parental involvement/engagement and student success (Bracke & Corts, 2012; Cheung & Pomerantz, 2012; Dauber & Epstein, 1993; Flynn & Nolan, 2008; Hill & Tyson, 2009; Hornby & Lafaele, 2011; Izzo, Weissberg, Kaspro, & Fendrich, 1999; Lunts, 2003; etc...). Focusing on the importance of increasing partnerships among schools, parents, and community members, Epstein developed her "six types of involvement framework," which included: parenting, two-way communication, volunteering, learning at home, decision-making and collaborating with community (Epstein, 2001; Epstein, 2008; Epstein & Salinas, 2004). Other longitudinal research has since established that parental engagement is essential to student academic performance (Izzo et al., 1999), motivation (Cheung & Pomerantz, 2012) and mental well-being (Wang & Sheikh-Khalil, 2014). Further, these findings are consistent regardless of cultural or socio-economic background (Cheung & Pomerantz, 2012; Hill & Wang, 2015).

Though Epstein's research is still relevant, her focus for increasing parental engagement remains concentrated on traditional methods of communication (Epstein, 2008). My capstone

research seeks to contribute to this body of knowledge by considering how high quality CMC may be used to overcome barriers to parental engagement in education in the future.

How Parents Can Be Engaged in Education

There are generally three main ways for parents to be engaged in their child's education: by working directly at the school (e.g. volunteering); by working directly with the student at home; and through contact with the teacher/school staff (Rogers & Wright, 2008). The combined effort of these last two factors speaks to the development of a student's "academic socialization". Hill and Tyson (2009) claim that academic socialization is one of the most the most valuable forms of parental engagement since conversation builds cognitive linkages about concepts and instills greater value in what is being learned while still encouraging and maintaining student autonomy in class. Wang and Sheikh-Khalil's (2014) research concurs that academic socialization is valuable, improving student academic success and decreasing the incidence of depression. Interestingly, their findings also suggest that parents' direct involvement in the school is inconsistently effective for student success, especially in higher grade levels. Regardless, in order for academic socialization to be realized, strong two-way school-family communication must take place to ensure that teachers, parents and students are working collaboratively towards the same end (Lunts, 2003).

Barriers to Parent Engagement

Despite the wholesale acceptance that parental engagement in a child's academic career is important, there are a litany of obstacles that can impede a parent's ability to participate. Recognizing that these barriers are a complicated interplay of a number of factors, Hornby and Lafaele (2011) suggest four specific spheres where these barriers tend to emerge: as a result of

societal impacts; within the parent-teacher/school relationship; through the unique needs of the child; and as a consequence of the individual parent's/family's circumstances (See Figure 1).

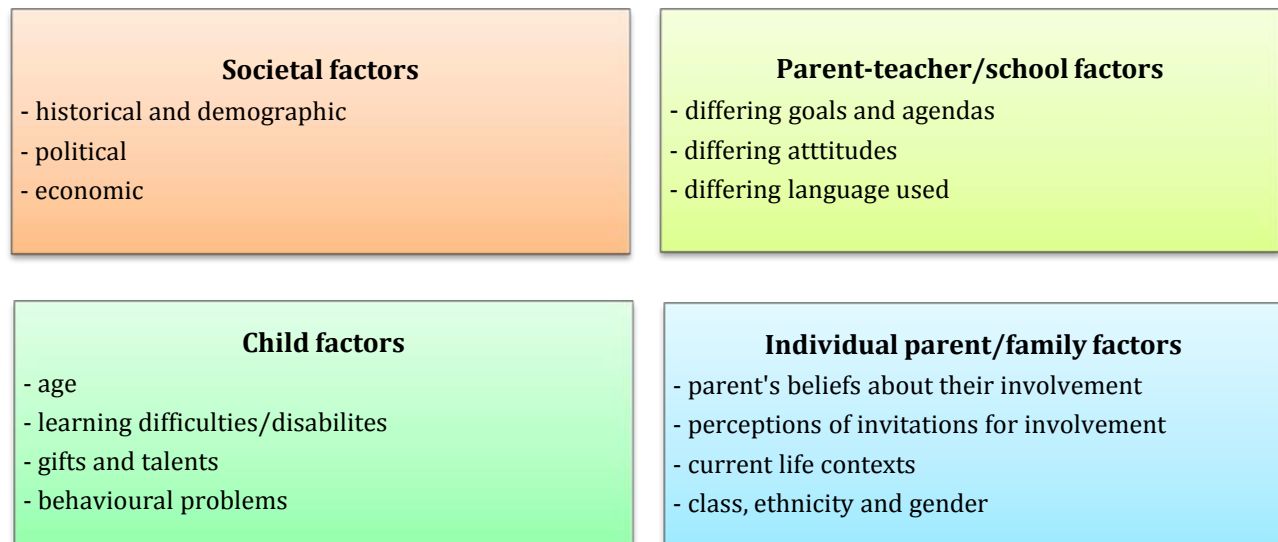


Figure 1: Factors acting as barriers to parental involvement (from Hornby & Lafaele, 2011, p. 39).

Societal Factors

At the widest level of consideration, the societal impacts of history, economics, and politics have manufactured the current condition of both the family and the education system.

Societal impacts on the family. Historically, schools have interacted with parents based upon a constructed social reality where homes are expected to be run by two heterosexual parents; the father, who works outside the home for the family's main source of income, and the mother, who works within the home and is the primary contact for all interactions with the school (Flynn & Nolan, 2008). Some family sociologists have argued that this nuclear family concept is the result of the dominant economic paradigm of capitalism and political paradigm of neoliberalism. This has further shaped the current day family dynamic into an anti-social structure that reinforces the notion that the individual must take care of themselves and their family, rather than requiring the state to shoulder any responsibility (Fox, 2015; Luxton, 2015).

Fox (2015) adds that, though the number of children per household has decreased, current parenting practices have become more intensive, forcing both parents, but particularly mothers, to focus greater time, attention, and energy on each child. Based on the resultant reality from these societal circumstances, it stands to reason that our political and economic systems have intensified the demanding role of the parent, both at home and in the workplace, while limiting the resources of finances, time, and personal energy with which to address each child's needs.

Societal impacts on education. While the modern family structure has changed since the turn of the century, the current school structure remains based on the factory model of the early 1900s; bureaucratic, inflexible, and hierarchical, with bells signifying strict timetabling and clear expectations from the system. The formality of this structure complicates the formation of parent-school relationships, which require flexibility (Hornby & Lafaele, 2011). In fact, as students age, the size and increasingly bureaucratic nature of middle and high schools intensifies this phenomenon, making it difficult for teachers and parents to both monitor and confer about an individual student's schooling (Lazar & Slostad, 1999).

This is not to suggest that efforts have not been made to change the education system to encourage parental engagement. Stelmach and Preston (2008) identify several governments that have actually endeavored to formalize parent involvement by creating specific policies and practices. In Alberta, the implementation of *School Councils Regulation (113/2007)* could be seen as such an example since the regulation stipulates that each school in the province *must* have a council of parents, the school principal, teachers, and senior students, to advise and liaise with school administration and the provincial government on a myriad of educational matters (Government of Alberta, 2007). Despite the requirement that each school have a council, recruiting engaged members remains a consistent challenge for schools across the province

(Alberta School Councils Association, 2008; Kaleidoscope Consulting, 2004). In addition, efforts to mandate parent participation via policy development have been criticized for being contradictory, overly complicated, and more likely to increase confusion about parents' role in education (Hornby & Lafaele, 2011; Stelmach & Preston, 2008).

Parent–Teacher/School Factors

According to Lazar and Slostad (1999), the adversarial relationship between teachers and parents is a systemic one that is “rooted in the earliest days of our schooling culture” as a result of the hierarchy established between learned teachers and unlearned parents (p. 207). Teacher and parent perception of this hierarchical disparity can be further heightened by parents' lower socioeconomic status, minority or immigrant background, or difficulty with the native language (Lazar & Slostad, 1999; Hoover-Dempsey et al., 2005, Turney & Kao, 2009). From a parent's perspective, there is a resultant sense of intimidation and/or unwelcome that can be exacerbated by their own poor school experiences in their youth (Bryk & Schneider, 2002) or the fact that communication only seems to occur to report negative student behavior (Hoover-Dempsey et al., 2005). Several studies add that an overarching lack of teacher training in how to engage a variety of parents propagates this home-school separation (Lazar & Slostad, 1999; Flynn & Nolan, 2008; Hornby & Witte, 2010).

Ambiguity about what is meant by parental involvement/engagement has also created variances in teacher and parent attitudes about how best to be involved in a student's education (Barge & Loges, 2003; Bracke & Corts, 2012; Farkas & Duffett, 2015). Barge and Loges (2003) claim that teachers tend to have narrower expectations of what parents should involve themselves in at the school setting, while parents see their role more broadly. Farkas and Duffett (2015) also note incongruence between the perspectives of those educational stakeholders who

have witnessed current day efforts to implement parental engagement, as a concept, within the school setting. Based on their candid qualitative interviews they found that educators tend to feel attacked by the process, while district administration appear to be using forums as a mechanism to check “public engagement” off of their requisite to-do list. In the meantime, active parents appear frustrated and disheartened by the efforts, recognizing that true consultation is not being sought so much as administrators are looking for a means to increase public support of their own agendas.

Child Factors

Each child has unique characteristics that require specialized attention. The discussion of these needs, particularly for those students who may be having difficulty learning or are demonstrating challenging behaviors in class, can make the parent-teacher relationship more awkward or tense, increasing the potential for confrontation or avoidance by either party in addressing these concerns (Hoover-Dempsey et al., 2005).

Beyond student need, there is widespread recognition that parental engagement consistently decreases as a student ages, approaching their middle school/high school years (Brannon, 2007; Hornby & Witte, 2009; Murray, McFarland-Piazza & Harrison, 2015). Many parents claim to become less engaged in their child’s education in middle school because they believe their child does not want them to be involved. However, this may be a misconception, as many students admit to complaining about parental presence, but only to fit in with their peers (Brannon, 2007; Tobolka, 2006). Others have suggested that the drop of engagement at the middle school mark can be attributed to the societal expectation that students should become more independent and capable of handling their own learning needs (Lazar & Slostad, 1999). Ironically, recent studies on adolescent brain functioning demonstrate that teenagers often

vacillate between seeming maturity and immaturity, indicating that, while it is important that they practice the skills necessary to gain autonomy, it is impractical to assume that they've perfected these skills until their early to late 20s (Steinberg, 2011).

Individual Parent/Family Factors

The combination of the above factors yields the present day reality of the family situation, resulting in very personal and complicated reasons why parents may fail to be involved in their child's education. Competing demands for parents' time and attention, such as work, other siblings, or complicated family structures, may leave many overwhelmed by the ongoing demands of their day-to-day responsibilities (Hoover-Dempsey et al., 2005; Hornby & Lafaele, 2011). Within the school itself, parents may feel inadequately prepared to help students with their school work (Brannon, 2007), intimidated as a result of negative schooling experiences in their past (Bryk & Schneider, 2002), or unwelcome due to their socioeconomic status, minority or immigrant background, or difficulty with the native language (Lazar & Slostad, 1999; Hoover-Dempsey et al., 2005; Turney & Kao, 2009). It is always possible that parents are simply unaware of their own importance in increasing the value of education in the eyes of their child, perhaps as a result of their own social circle's culture of non-involvement (Bracke & Corts, 2012). Changing policy and practice may also leave parents unclear about what, precisely, is expected of them by educators, especially as their child's needs change over time (Farkas & Duffett, 2015; Stelmach & Preston, 2008).

Computer-Mediated Communication

According to Marshall McLuhan, "all media, from the phonetic alphabet to the computer, are extensions of man that cause deep and lasting changes in him and transform his environment" (Playboy, 1969). The communication theorist also claims that, "whenever a

society develops an extension of itself, all other functions of that society tend to be transmuted to accommodate that new form; once any new technology penetrates a society, it saturates every institution of that society” (Playboy, 1969). In keeping with McLuhan’s philosophy, the Internet, ICT, and CMC have revolutionized people’s way of living, allowing large volumes of information to be instantly transmitted and accessed. Moreover, these technologies are becoming increasingly ubiquitous as mobile devices become more cost effective (Hinchcliffe, 2011). In fact, based on 2014 survey data, 90% of US adults own a cell phone; while 64% of US adults own a smart phone (Pew Research Centre, 2015).

Education’s Response to CMC

In response to this data, schools and school jurisdictions have endeavored to supplement their traditional communication practices (newsletters, parent-teacher conferences, etc...) with interpersonal (cellphones, email) and mass communication technology (school websites), with varying degrees of success (Hohlfeld, Ritzhaupt, & Barron, 2010). Unfortunately, evolution of the use of technology in schools can be cumbersome. Currently, the transmission method of information dissemination, entrenched in past practice, has transferred to the ways digital media are used (Selwyn, Banaji, Hadjithoma-Garstka & Clark, 2011). Funds to ensure that there are sufficient financial and human resources available to develop CMCs for use external to the classroom exceed the educational mandate and, so, are not a priority (Alberta Education, 2013). While some question the investment in CMC efforts, claiming that these tools are not being used to their full capacity by parents (Rogers & Wright, 2008), others argue that it is the responsibility of schools to initiate their use and manage their evolution, “[adhering] to the new norms that technology is setting in how humans communicate today” (Olmstead, 2013, p. 37).

Advantages of CMC in Education.

If schools and school jurisdictions can alter CMC practices, taking into consideration the barriers that parents need addressed to be more active in their child's education and becoming more focused and strategic in their implementation, it is possible that CMCs may be better leveraged to increase parental engagement. The literature indicates a variety of reasons why CMC applications in education should be better utilized.

A window into the classroom. The ability for teachers to place information about a student's day online essentially provides parents with "a window into the classroom." This practice has been noted to increase parent connection to their child's learning in a far less obtrusive way than being physically present in the classroom, which may embarrass them in front of peers or infringe upon their burgeoning autonomy (Ellis, 2015; Rogers & Wright, 2008).

School reporting tools, teacher blogs, and other online mechanisms for reporting student behaviour/performance also provide parents with an up-to-date repository from which to gather information that can be used as a sparking point for conversation, encouraging questions pertinent to a child's current learnings (Byron, 2009; Lunts, 2003). The promotion of these in-depth, learning-specific conversations speak directly to the academic socialization concept championed by Hill and Tyson (2009).

Time saver. With many parents reporting an average 90 minutes of free-time scattered throughout the day (Belkin, 2011), probably the most promising rationale for adopting CMC responds to the limited resource of time (Olmstead, 2013). CMC provides both teachers and parents with the potential to have asynchronous conversations that better suit their schedules. Lunts (2003) further argues that the use of technology in this manner also saves the emotional energy required during face-to-face meetings.

Perceived judgment reduction. Fear of judgment based on economic status, minority background, or difficulties with language were among the personal barriers noted to impede parent participation in education. CMCs have the potential to allow these parents to initiate conversations and establish relationships before judgments based on these attributes may be made. While the literature surrounding the benefits of developing relationships based on CMC versus face-to-face interactions is varied, and most seem to suggest that face-to-face relationships remain more likely to create stronger bonds and likeability (Okdie, Guadagno, Bernieri, & Geers, 2011), it still stands to reason that, for those parents who would otherwise avoid schools and teachers, CMCs may be the optimum instrument to converse while perceiving themselves to be free of these inhibitors. In addition, since CMC relationships often expand to face-to-face ones (Tidwell & Walther, 2002), having a previously established online relationship may actually help parents feel more comfortable when they do have their first face-to-face conversations with staff.

Less lost in translation. Asynchronous messaging between parents and teachers via electronic means may also benefit parents who speak English as a second language. The process allots more time for them to review written messages and access translation assistance through online applications or to email/conference with other translators they may know. They then have an opportunity to respond accordingly, utilizing these same resources.

A new place to ask for help. Though vastly underutilized, Radin (2013) suggests that teachers could be using online forums and emails as mechanisms for asking for explicit help from parents; either letting them know about volunteering opportunities or directing them on areas of learning that the student may need to review at home. Though many parents work during the day, it is possible that they could be called upon to assist the school with online projects that

they could coordinate at their convenience in the evening. Direct communication regarding these types of expectations may reduce ambiguity of what is intended by the concept of parental engagement in the future.

Concerns About the Use of CMC in Education

While the benefits of CMC in addressing some of the barriers facing parent participation are strong, there is also speculation about issues and concerns that may arise as a result of use.

Security/privacy. While, on one hand, CMC can create a window through which parents can feel more connected to their child in the classroom, if poorly managed, there is also the possibility that other individuals not associated with the classroom may access this information. Clearly this would infringe on student privacy and potentially pose a security risk to the student and his/her family. Schools and school jurisdictions, ever cognizant of the need to protect student privacy, have become even more so in the wake of *Freedom of Information and Protection of Privacy (FOIPP)* legislation (Office of the Privacy Commissioner of Alberta, 2006). Consequently, secure virtual environments have been employed by educational organizations, providing platforms where students and parents may access school, classroom, and student information (Selwyn et al., 2011). Unfortunately, while these virtual areas are more secure, they also tend to make access more convoluted, potentially deterring online participation.

Lacking control. CMC has been attributed with providing timely, organic, dialogic, and credible sources of information for organizations (Guth & Marsh, 2011; Ledford, 2012). Social media, in particular, has been seen as a means of increasing an organization's transparency (DiStaso & Bortree, 2012). However, CMC has also been described as a "double-edged sword," since the velocity of information transfer can "[amplify] dissension and [quicken] the pace with which district relationships deteriorate" (Farkas & Duffett, 2015, p. 37). In short,

the reciprocal, and oftentimes public, conversations that emerge through CMC are an element that cannot be controlled by educators/communicators, which can be a source of discomfort and controversy when comments become negative or confrontational.

Blurring boundaries. Grant's (2011) research indicates that, despite the inherent benefits in having a "virtual third space" for teachers, parents, and students to collaborate, concerns were raised about how this space can overextend itself, reaching into personal lives and adding to already ample responsibilities. For instance, teachers reported apprehensions that parents would both expect and demand that information about their individual child be provided more quickly and with more frequency. Parents and students worried about the unhealthy lack of separation between home and school. Students expressed concern that parents and teachers would unfairly exclude them from conversation pertaining directly to them (Grant, 2011).

Still a place for traditional communication. Though many posit that technology can be a great help in overcoming the barriers that many parents face, inhibiting their participation in their child's education, it is recognized that there are situations where traditional approaches of communication are more appropriate, and should not be dismissed altogether (Kosaretskii & Chernyshova, 2013; Lunts, 2003). Research conducted by Thompson, Mazer, and Grady (2015) affirms this, finding through their application of MRT that there is a correlation between the mode of communication used and the complexity of the message being delivered. For instance, email or text is preferred for relatively quick messages about grades or scheduling meetings. However, in cases where more complicated information needs to be imparted, such as difficult news regarding student performance or behaviour, phone or face-to-face messages were much preferred. Teachers reported that non-verbal cues imparted during complex messaging were imperative to ensuring that messages were clearly stated and understood, which are non-existent

or easily misinterpreted when using computer-based communication methods (Thompson et al., 2015).

Access to technology. Although CMC has become increasingly commonplace in schools (Hohlfeld, et al., 2010) and access to technology has become more prevalent as parents become increasingly computer-literate (Thompson, 2008), there is still a cost for technology. Consequently, for families receiving less than an average income, access may be difficult to gain (Hohlfeld et al., 2010). This can be exacerbated when parents do not have jobs that provide them with frequent computer access (Thompson, 2008). Limited technological infrastructure can also impede CMC use, which is often the case in rural/remote geographic areas (Kosaretskii & Chernyshova, 2013).

Characteristics of Quality CMC in Education

Recognizing that CMCs are becoming permanent structures in our daily lives, educators realize that there are significant benefits to be gained from the use of this technology in accessing parents. Admittedly, there are also valid concerns that need to be considered and addressed in any implementation of CMC. Nonetheless, research has provided insights regarding how best to proceed in encouraging quality CMC to be developed.

The work of Lewin & Luckin (2010) indicates that the actual application or program used is less important than the relevance of its implementation and its acceptance by users. Ellis (2015) adds that, so long as the medium is convenient and viewable across various devices, then it is generally accepted. In terms of what educators can do to improve communications, Zieger and Tan (2012) note that it is important for teachers to be consistent in what they are using to communicate with parents, and that they are clear about how they expect parents to respond. Further, efforts should be made to “sensitively scaffold” technology, building on parents’

previous understandings and strengths to encourage program utilization (Lewin & Luckin, 2010, p. 749). Based on these insights it appears that parents require the following attributes for CMCs to be effective:

- **Relevance** (“It is important for me to go there”) - A clear understanding of why it is important to “go” somewhere online is established. The quality of information there is worthwhile and increases desire to “come back.”
- **Convenience** (“I can get there easily”) - Accessing the tool can be done easily from anywhere, particularly through use of a mobile device.
- **Reliability/Consistency** (“I know where to go”) - Trusted and accurate information will be placed on the site in a timely way. Parents can expect that it will “be there.” Teachers can expect that parents will “go there” for more information.
- **Ease of use** (“I know what to do when I get there”) - No additional training should be required. Parents should be able to “sensitively scaffold” based on their current understanding of computer use.

However, as mentioned earlier, parental engagement as an educational aim infers the creation of genuine relationships/partnerships with the school to benefit the student. Beyond all of the above factors, schools need to employ CMC in a way that breaks from “the ‘top-down’, broadcast delivery of information, communication, and homework resources to parents, with limited opportunities provided for reciprocal contact” (Selwyn et al., 2011, p. 321). While there is value in the quick transmission of information, and certainly CMC methods lend themselves to this speedy transfer of data, they also need to be used to enhance relationships through

conversation/reciprocity in order to increase parental engagement. Consequently, this attribute will be added to the previous list.

Benefitting from the Work of Online Community Design to Assess CMCs

According to Kraut and Resnick (2011), an online community is, “any virtual space where people come together with others to converse, exchange information or other resources, learn, play or just be with each other” (p. 1). Howard (2010) adds that an online community has “an organizational structure that focuses around a shared purpose rather than one-to-one-relationships” (p.11). Though a school community has the shared purpose of educating students, it cannot be considered an online community. For one thing, the online component of the community is really an extension of the existing offline community. As a result, there are real life social implications for any *faux pas* that may be made. Moreover, participation in the school community, online or otherwise, only lasts as long as one has a vested interest in the school’s activities, either by having a child that attends the school or by being employed there.

Regardless, there are attributes of promising online design that may be used to devise a school CMC rubric for analysis. For our purposes, the research breadth and experience of Tharon Howard (2010), in his book, *Design to Thrive: Creating Social Networks and Online Communities that Last*, and Robert E. Kraut and Paul Resnick’s (2011) text, *Building Successful Online Communities: Evidence-Based Social Design*, will be employed.

Howard (2010) posits that there are four aspects of online design that help increase the longevity of an online community: remuneration, influence, belonging, and significance (RIBS). *Remuneration* implies that people invest in an online community if they feel they have something positive and valuable to gain from their participation. *Influence* infers that people feel that they have a voice within the community and that their opinion is valid. *Belonging* depicts a

sense of membership by those participating in a community. *Significance* stems from the organizer of a community and speaks to their reputation as a provider of valuable, pertinent, and meaningful information. Kraut and Resnick (2011) add to this overview that it is essential to forage strong relationships between community administrators and users to encourage *contribution* and *commitment*, factors instrumental to the development of a dynamic online presence.

While the above mentioned factors are crucial in strategically considering the motivations about why people come and stay in a particular online community, they do not provide a context for measurable outcomes that could be addressed in a rubric. Fortunately, Kraut and Resnick (2011) identify eight practical “levers of change” that may be manipulated to impact the design of online communities, thus increasing user engagement. These include: community structure; feedback and rewards; access controls; content, tasks and activities; external communication; selection, sorting, and highlighting; presentation and framing; roles, rules, policies, and procedures. The first three levers listed do not seem to apply to the school scenario since *community structure* for a school is already set, *feedback and rewards* have potentially immoral implications that can be problematically implemented for any non-profit organization, and *access controls* are already understood to be monitored and addressed by the school principal/designated staff. However, the remaining five levers have the potential to provide an excellent framework to begin developing practical measures for assessment.

Realizing the Importance of Media Richness Theory

After recognizing later in the research process that the quality of CMC cannot be understood independent of the platform being employed, it became apparent that a greater understanding of Media Richness Theory (MRT) needed to be undertaken. MRT has a basis in

Marshall McLuhan's conceptualization of "cold media" versus "hot media." McLuhan describes cold media as being highly participatory and inclusive, firing a variety of the senses.

Alternatively, hot media is less participatory, exclusive, and stimulates very few senses (Playboy, 1969).

MRT uses this conceptualization and takes into consideration "the ability of information to change understanding within a time interval" (Daft & Lengel, 1986, p. 560). This is to say that, the *richer* a medium is the more quickly it can convey meaning accurately. Summarizing Daft & Lengel's (1986) work, Ledford (2012) has formulated four questions to determine the level of a media's richness:

- (1) Does the medium offer the receiver the ability to send feedback and how quickly?
- (2) Can the medium communicate multiple cues?
- (3) Does the medium offer language variety and the opportunity for natural language?
- and (4) Does the medium have a personal focus? (p. 176).

CHAPTER 3: RESEARCH DESIGN AND METHODS

Theoretical Frame

The acceptance of two key theories is pivotal to the methodological development of this study. The first stems from the socio-psychological understanding that communication has an influence on the way that individuals interact and influence each other. As Craig and Muller (2007) explain, “within the socio-psychological tradition, communication is conceptualized as a process of social interaction. That communication is infused with causal forces of social influence and that these forces can be understood scientifically...” (p. 313). This foundation speaks to the assumption that the quality of a school’s CMC practice has the ability to impact parent behaviour/engagement.

The second assumption uses a discovery-based paradigm of knowing, furthering the understanding that an objective reality can be observed, understood, and tested through “precise, systematic, and repetitive procedures” to “classify objects based on their similarities and differences” in order to “identify something essential and useful about them” (Merrigan, Huston, & Johnston, 2012, p. 41). The feasibility of developing a rubric to analyze and test for the quality of CMC loses its potency if there is no ability to discern an objective truth.

Research Design

Rudestam (2007) states that “research based on hastily thrown together instruments, which lack sufficient pretesting and are questionable in terms of reliability and validity, is of little scientific value” (p. 98). Therefore, substantial work needs to be done to both assemble and test a robust research tool to investigate CMC use in education. As a result, I employed an iterative process, “not as a repetitive mechanical task but as a reflexive process.... to [spark]

insight and [develop] meaning” (Srivastava & Hopwood, 2009, p. 76), and to eventually inform the development of an evaluative rubric tool to assess the quality of CMC in schools.

Using a qualitative description methodology, I conducted inductive content analysis on the feedback collected through semi-structured interviews with school division staff and parents about their experiential use of school-based CMC, primarily through communication emerging from the school’s official Facebook and Twitter accounts. The codes, categories and themes found from this analysis were further interpreted in reference to the existing literature; particularly from Kraut and Resnick (2011) and Howard (2010), academics who have extensively researched the development of thriving online communities. The work of Ledford (2012) was also employed at a later point to accommodate the realization that CMC platform needs to be taken into consideration more strategically. The culmination of this information was used to devise an evaluative rubric tool, which was pilot-tested and adjusted accordingly.

The iterative use of these varying activities, depicted in Figure 2, lends strength and credibility to the final rubric tool, increasing the reliability and validity of the data captured through its use (Schutt, 2015). While reliability and validity are traditionally concepts applied to quantitative research, Golafshani (2003) notes that they “are conceptualized as trustworthiness, rigor and quality in qualitative paradigm... [eliminating] bias and [increasing] the researcher’s truthfulness of a proposition about some social phenomenon” (p. 604).

Setting

Out of convenience and personal value, this project was conducted within the Holy Spirit Catholic School Division (www.holyspirit.ab.ca), where I am currently employed. This regional school division, based in southern Alberta, is comprised of 14 schools dispersed in the communities of Bow Island, Coaldale, Lethbridge, Picture Butte, Pincher Creek, and Taber, as

well as their surrounding areas. As of September 30, 2015, the school division's enrolment included 4929 students from Kindergarten to Grade 12 (Holy Spirit Catholic School Division, Board Meeting Agenda for October 28, 2015). Further demographic data for the division's schools is captured in Appendix A.

Unit of analysis

Within the education setting there are three main levels of analysis that could have been considered in terms of sources of CMC with parents: the division, the school, and the classroom teacher. While all of these sources have the potential to impact parental engagement, there are three reasons why this study focused on school-level CMC. First, current CMC within Holy Spirit Catholic School Division appears to be most coordinated at the school level. This is seen by the fact that almost all division schools have adopted Facebook and Twitter accounts that serve as a primary source of information to their respective communities. Second, when testing the final evaluative rubric tool, the ability to compare and contrast results will be enhanced because there are multiple schools to assess. Especially since, given my own observations as a communicator in the school division, there are definite discrepancies in how each school uses and maintains these accounts that will provide variability in the final results of the test. As there is only one source of CMC at the school division level, comparative analysis would not be possible. Third, by focusing on the school level, no individual classroom teachers will be personally identified or potentially criticized, which I felt would be inappropriate, unwarranted, and unhelpful in improving division-wide communication practice.

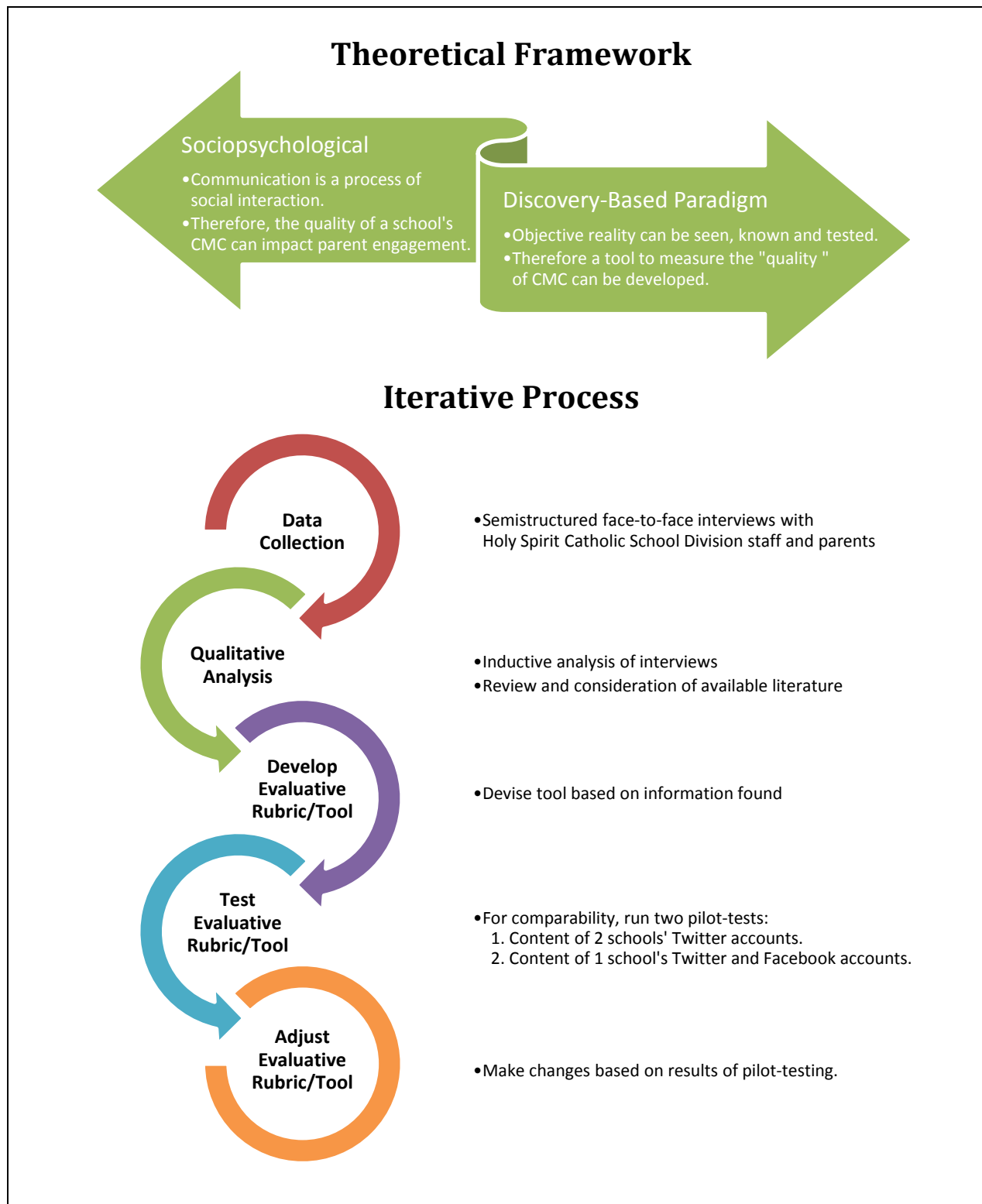


Figure 2: Overview of the Research Design

Sampling

Platform Selection

Remembering that CMC is most powerful for parents when it is convenient to access, easy to use, a reliable source of valuable information, and empowers conversation (Ellis, 2015; Lewin & Luckin, 2010; Selwyn, Banji, Hadjithoma & Clark, 2011; Zieger & Tan, 2012), this study focused specifically on parent and school experience using Twitter and Facebook social media platforms. These mediums are already well-established and widely used by adults, as indicated by the fact that 65% of American adults now subscribe to these mediums, an increase of 7% over the last decade (Perrin, 2015). In addition, almost all of the schools within the Holy Spirit Catholic School Division have been employing both Facebook and Twitter accounts for approximately five years.

Since Facebook and Twitter are consistently used across the school division, interactive, and take place in a more open forum that can be observed and analyzed, they appeared the ideal platforms to consider and test in this study. While webpages, blogs, and electronic newsletters could be considered for analysis, they tend to remain relatively static and do not facilitate conversation. Emails and texts, though conversation-based, do not occur in a public sphere.

Participant Selection

In preparing to conduct interviews for qualitative analysis, purposive convenience sampling was used to select staff members and parents who could speak experientially to the quality of school-based CMC within Holy Spirit Catholic Schools. Purposive sampling refers to “nonrandom selection” (Merrigan, et al, 2012, p. 297), which is appropriate in this case since staff members and parents interested in speaking about school CMCs were purposefully sought. The convenience aspect of the sampling refers to data that is “easily accessible” to the researcher

(Merrigan et al, 2012, p. 290). This too is appropriate given my position in the school division and my ability to contact principals and staff members with whom I was already acquainted. A “snowball” surveying technique was also used, asking principals and staff members to recommend and approach parents/guardians to ensure that I had explicit permission to contact them to schedule an interview (Rudestam, 2007, p. 91). It was made very clear to all participants at the outset of the study that their participation was voluntary and that they could opt out at any time without penalty.

Over the month of May 2016, I identified six individuals to be interviewed. The first was a school principal, known to be involved in school social media/CMC efforts, who could speak to the responsibilities inherent in the leadership and organization of school communication. Two teachers were chosen. Though both were from different school settings they were each vested in their respective school’s communication and in improving parental engagement. The three parents identified by staff were all considered highly involved in their child’s education and able to provide insightful responses about the school’s CMC.

I had also contemplated ensuring that there was parent representation by key groups such as men and women, rural and urban, individuals working within and outside of the home, English as a second language speakers, and those identified as having a lower socio-economic status. While gaining these diverse perspectives would be valuable, there were a number of foreseeable difficulties. First, some of these demographic factors would be difficult to ascertain in polite conversation without potentially offending participants. Second, it would be problematic to try to encapsulate so many levels of representation in so few interviews. Certainly, capturing different parent demographics and opinions will be essential in future study, with a larger group of participants, to more closely discern the correlation between quality CMC

and the level of parental engagement. However, at this point, I decided that focus on finding interested and insightful parents to speak to their current experiences with school CMC would be sufficient for the development of the evaluative rubric tool.

School Selection

Once the evaluative rubric had been developed, testing was done to confirm its validity. The Twitter accounts of two division schools were selected for the first test, to get a sense of comparison and to determine how accurately the rubric performed. While it would have been ideal to test two schools that shared the same size, grade configuration, and demographic attributes, this is near impossible in a relatively small division of only 14 schools. As a result, after scanning the social media presences of all schools, I opted for two schools with the same Kindergarten to Grade 9 grade configuration that have established Twitter and Facebook accounts and appear to be using this technology differently. I reasoned that these core variations in practice should help in testing to see how deviations translated within the rubric.

Instruments

Two semi-structured interview instruments were developed to assist me in gathering feedback from staff and parents regarding their unique experiences with school-based CMC, specifically through their experience with school social media platforms designed to support parental engagement (See Appendix C and Appendix D). Semi-structured interviews were selected for two reasons. First, recognizing that parents and staff are both very busy, having questions to guide conversation assisted me in keeping participants relatively on topic so that they were more likely to complete the interview in 30 minutes or less. Second, semi-structured interview questions allowed me the flexibility to ask additional questions, or for more

clarification, should an interesting point be raised (M. Lefebvre, personal communication, May 2015). Efforts were also made to use simple and concise language for the interview questions to increase participant comprehension and the accuracy of responses (Rudestam, 2007).

Edwards and Holland (2013) indicate that, while “questions are the most commonly used interview tool...researchers can utilize a range of other textual, visual and creative tools to engage interviewees and stimulate discussion as part of qualitative interviews” (p. 53). With this in mind, I arranged for a computer to be available during the interviews with school Facebook and Twitter accounts flagged for quick reference. This was intended to allow respondents to provide impressions based on the real data in front of them, as opposed to relying on memory.

Procedure and Analysis

Before interviews were conducted, approval was gained from both the University of Alberta’s Research Ethics Board (REB) and the Superintendent of Schools for the Holy Spirit Catholic School Division. Once approval was received, principals and staff members were approached to inquire about their willingness to participate. A snowball surveying technique was then used, asking principals and staff to recommend and approach parents/guardians also interested and willing to participate.

Arrangements were made to conduct six face-to-face interviews at a mutually convenient location that is relatively private and quiet. With the participants’ permission, recordings were taken of the interviews to ensure transcription accuracy. Notes to record personal impressions and thoughts during the interviews were also taken to supplement collected data (Rudestam, 2007).

While the interview questions did not appear to be high risk and seemed unlikely to cause participant discomfort, efforts were still be made to maintain confidentiality. Transcripts

were anonymized so that no identifying factors were recorded. All captured material from the interview process will now be kept under password protection on the researcher's personal computer, not on division owned equipment or servers, for a period of five years following the completion of the study. After five years, the transcribed and archived versions of the data will be destroyed in a way that ensures participant privacy and confidentiality.

After reviewing the six transcripts, I determined that many common themes had emerged across interviews, that saturation had been fulfilled, and that analysis could begin (Rudestam, 2007). Had saturation not been reached at this point, more interviews would have been conducted, ensuring that an equal number of staff and parent interviews were gathered.

Using an inductive data analysis technique, interview transcripts were closely reviewed, coded, and categorized, looking for key concepts and patterns that emerged (Löfgren, 2013). This data was considered in correspondence with current literature, corroborating/legitimizing those factors that comprise quality CMC (Schutt, 2015). These emergent themes were then used to develop an evaluative rubric tool.

To further determine the rubric's accuracy, applicability and effectiveness, two pilot-tests were conducted. The first was an analysis of the Twitter accounts of two division schools. The second pilot-test reviewed the Facebook and Twitter accounts employed by one of the two schools. Based on the results of these tests, adjustments to the rubric were made accordingly.

CHAPTER 4: RESEARCH FINDINGS

In order to verify and/or expand on the suppositions put forward by the literature, while providing an educational context specific to Holy Spirit Catholic School Division, six interviews were conducted with three staff members and three parents. After reviewing the interview transcripts, themes emerged from an inductive analysis of the data. The findings from the staff interviews will be considered first, followed by the parent interviews, and then overarching themes. Lastly, the results from the pilot-testing conducted on the devised evaluative rubric will be discussed.

Staff Interview Feedback

Creating Quality CMC in Practice

Corresponding to the literature, staff directly noted that relevance, reliability, and consistency of posts/information was important to increasing the quality of CMC, thereby increasing parent engagement:

I believe that if you have a strong method of communication you will use it more and people will seek it out more. If it's not strong, people won't look at it. I guess the onus is on us to make sure that our posts are quality, informative... that they're relevant. And if they are consistently that, parents will seek it out. But it's up to us to use it consistently like that. (Interview 2)

To further strengthen school level communication, staff suggested that four key areas be considered: the need to employ strategy and planning, the need to tailor communication to

individual school demographics, the importance of using specific platforms, and the need to ensure that content is relevant and valuable.

Need for strategy and planning. Staff members consistently indicated that schools, in general, are not nearly strategic enough in planning or implementing communications across different platforms.

Usually, if we have to communicate something to parents we do it on ALL of the channels. So, a phone out, we'll post it on the website, we'll post it on Facebook, we'll put it on Twitter. So, when we do kind of a very large outpouring of information, we're just trying to hit as many targets as possible. (Interview 3)

It was also recognized that more direction was required:

...needs a little bit of a central brain behind it instead of having this scattershot approach that, y'know, we load up our shotguns and throw whatever we want out there into the interwebs and see what sticks, right? I think we're kind of learning what sticks and eventually we will have to come up with a plan. (Interview 2)

Staff suggested that a more systematic review of analytics may be helpful in developing a strategic communications plan. They also proposed that a focused parent survey could be a useful means of streamlining activity. However, the high number of surveys already sent out by the school division and the provincial government may prove problematic, yielding increased survey fatigue.

Consideration of school demographics. All staff members, at some point, indicated variances in the demographics within their school community and how message distribution, in particular, was impacted as a result: "...we had a community that, maybe just getting their kids to schools was all they could handle, never mind managing the paperwork and everything that comes with it" (Interview 1). Frustration was also expressed that CMC, thus far, seemed to fail in reaching those parents whose child truly required more at-home support. Instead, parents already engaged in the education system, with both computer access and the time to use it effectively, seemed to benefit most from school online activity.

Additional remarks were made about the tendency for parent engagement to decrease as children aged, aligning with research in this area:

[It's like a] biological [...] disconnect, I suppose, between the teenage types and their parents, where the parents are like, "well, y'know, sink or swim kid, here you go...."

The elementary kids, their parents will like, like everything, and they're just more interested and ...less tired maybe? I dunno. Maybe they have less time to have been worn down by the rigors of eye-rolls and sighs and things like that. (Interview 2)

The high school staff member also noted that, within her school, there was a greater expectation that the students themselves be responsible for their education and ensuring that their parents were apprised of any necessary information. Consequently, high school social media practitioners considered students an integral part of their online audience and shaped their messages accordingly.

Consideration of platform quality. While the quality found within the platform is important, staff responses indicated that the platform itself is relevant. According to staff, different platforms simply lend themselves to different audiences, and these audiences do not necessarily overlap. For instance, while Facebook appears to be more popular and widely used, there are a small and active number of parent Twitter users who do not subscribe to the more popular CMC. Facebook was also reported to have more targeted access to school parents, while Twitter has a wider community following, likely as a result of the variety of hashtags associated with it:

Because, no one is really going to follow my Facebook page unless they care about the school, whereas when you hashtag something, like, y'know, the #hs4, #yql, #lethbridge, it goes to you whether you care or not [...] and then you may just end up caring because you see some cool things that are happening or some opportunities to be involved. (Interview 1)

Another aspect of platform that was discussed included the importance of timeliness. While most social media platforms have the potential to have notifications forwarded to subscribers, educators explained that this cannot be counted on for most parents. As a result, because parents need to login and may not be in the habit of doing so consistently, it is a poor choice for the school to send messages of a timely nature out through Facebook and Twitter alone. One teacher noted that past efforts by the school to organize events through social media were unsuccessful and that email and phone calls tended to be far more effective.

Consideration of content quality. Despite the variety of other matters brought forward by staff members regarding school CMCs, much of which corresponded with the literature, there was a cohesiveness from all interviewed when it came to what worked to engage parents most. Posts that received the greatest response were those that provided a window into the classroom, showing highly visual and personally relevant information, much as Ellis (2015) had suggested. Relevant posts included those that referred to parents' own child, or those they knew. Visual posts referred to the use of pictures and videos to produce eye-catching content.

Alternatively, it was also agreed that transmission-based, information-out posts failed to "get a lot of traction" with parents (Interview 2). Granted, though these posts don't receive a great deal of response, it is believed by staff that they are sometimes necessary and generally appreciated so long as they are "topical," "timely," and/or "emotional" (Interview 2).

Staff members also noted that the visual aspects of the school's CMC appeared to increase the school's brand, as well as community awareness beyond the parent or staff community. For instance, one staff member stated that these visual depictions could be "groomed and selected" to give the "impression [...] of being an engaging, exciting, and dynamic place [...] [forming] the perceived online identity of [the] school." The interviewee further noted that this was not an inaccurate depiction of the school so much as that it was "glamourized" (Interview 2). Another staff member indicated how it was important to provide these visual elements to both give taxpayers a sense of where their money is going and to bring "positive attention to children and their needs" (Interview 1).

Value in the Work

The opinion of staff members was that the use of CMCs for school communication was incredibly valuable. Several reasons were explained.

Conversation increase. Staff reported that parents, particularly on Facebook, were inclined to use the forum as a means for two-way conversation, asking questions via the school account when needed. They further found that this online conversation increased the overall “approachability” of the school staff (Interview 1).

Corresponding with Hill and Tyson’s (2009) depiction of academic socialization, it was also recognized that CMCs had the potential to increase communication between parents and their child at home. As parents could see more of what had happened at school during the day, they were able to ask focused questions that required detailed responses.

Imparting school brand/identity. Another benefit included the ability to impart the school’s brand, values, and personality digitally through social media. The staff member based in a rural community seemed particularly cognizant of the need to be a part of the digital conversation surrounding the school, both to control the school’s positive image in the community and to contradict any negative hearsay.

Inevitable technological age. Given the evolution of technology, the “quick, easy and ...ubiquitous” (Interview 3) reality that is being developed by social media, and the increasing comfort of younger users (who are becoming parents) with computers, staff members felt that it was imperative for schools to have an online presence. They explained that schools would be judged by their digital footprint and that a lack of this online presence would negatively impact enrolment numbers and, eventually, reduce sufficient funding for the school. Also mentioned

was the need for educators to model technological savvy; proving that they, as life-long learners, are competent to teach students what they will need to succeed in the future.

Cutting the information overload - less paper. The school principal interviewee spoke to the importance of being able to communicate in a paperless format. She recognized that, more than reducing environmental waste and providing a cost effective option to alleviate the pressures on school budgets, messages were more likely to be transmitted directly to parents in an organized and less overwhelming fashion:

I remember feeling this way myself, [getting]
overwhelmed with the amount of papers that come home.
And so, sometimes things will get lost in the shuffle of,
y'know, bringing things back and forth with the kids.
Whereas, if we can go through the computer, whether it be
social media or the webpage or emails, then it goes
directly to the parents without the risk of being lost in
travel. (Interview 1)

Staff Concerns

Though agreeing that CMCs are important and relevant, staff members did indicate a number of concerns regarding their future use and implementation in the school.

Platform mission creep. Given the recognition of the diverse populations within each school setting, and the varied needs that emerge as a result, all school staff interviewees indicated that their respective school strove to reach parents in as many possible ways as possible. This included traditional methods like newsletters and pre-recorded phone calls, as well as digital means like Facebook and Twitter. Exacerbated by the evolution of technology and the

desire of schools to “stay current” (Interview 3), a type of “platform mission creep” seems to have emerged, where more means of communication are added to the school repertoire, but none are removed, despite staff desire to streamline. “It’s basically like having a bulletin board and we just keep posting stuff on it...” (Interview 3).

Freedom of Information and Protection of Privacy (FOIPP) compliance. The school principal interviewee, in particular, was concerned about guaranteeing that the students depicted in school social media had explicit parental permission via signing off on the annually submitted student registration form. She noted that there is always a spectrum between those intensely private parents that would be upset if pictures of their child were shared online and those that would be offended if images of their child were not uploaded. In an effort to confirm that FOIPP was always appropriately addressed, she had originally determined that she would undertake all of the school’s social media alone. However, she noted that this quickly became untenable. In the future, she plans to allocate additional staff, recruiting those most willing and interested in assisting manage the school’s social media presence and activity, to ensure that it never becomes too much of a “chore” for any one person.

Workload. All of the staff members noted that they were concerned about the amount of work that was, and would be, required to maintain and improve school-based CMCs. They seemed apprehensive about the precarious balance between professional and personal time commitments, as well as the importance of ensuring a separation between professional and personal social media accounts. Though parents, too, recognized the amount of work required in consistently updating CMCs, they indicated that it was becoming an essential avenue of communication that simply needed to be done well. One staff member articulated his concerns

about how community perception would be negatively impacted should the school's social media activity decline:

... 'cause this is a lot of work, and right now, if you have a series of good posts, it's great, but you run the risk of also being out there having put your face, your name, your brand, your school, on display. And then, when you stop, you make it look like something bad is happening or [...] maybe you're getting lazy, [...] but really you're just busy and this is one of those places that you kind of cut. So, I wonder if there's a negative connotation to when you take a bit of a break from blitzing social media.... (Interview 2)

Counteracting Workload

Two major ideas emerged in response to counteracting increased staff workload. The first arose from a team-based approach to addressing CMC at the school level. The other stemmed from the convenient and ubiquitous nature of mobile devices.

Team-based organizational approach. Staff members noted that having an individual person address a school's social media presence did ensure control of messaging and brand, increasing consistency as well as the certainty that student privacy would be assured. However, there appeared to be more strength in having a team-based approach, since there would be more variety in the messages and greater activity overall. Additionally, it was suggested that, rather than having one institutional and authoritative voice, allowing individual educators' personalities to shine through increased the potential for parents to get to know staff and feel more at ease when approaching them at the school.

Convenience via mobile devices. “Convenience” was the notion that staff members most cited to mitigate issues surrounding workload. For staff members and parents alike, when referring to the concept of convenience, they often meant that a CMC was easily accessible via a mobile device. Consequently, educators advocated for programs that made uploading pictures and information a straightforward task that could be accomplished on their phones without distracting them from the important job of supervising students. A simple way of toggling between professional and personal accounts was also appreciated. This corresponds to Ellis’ (2015) findings that, so long as a medium is convenient and viewable across various devices, then it is generally accepted.

Parent Interview Feedback

Responses to Facebook and Twitter.

Ironically, though the educators I talked to emphasized that more parents were engaged via Facebook, the three parents I talked to were more likely to connect through Twitter. One parent conveyed that they preferred not to have the Facebook application on their phone as it was a “distraction,” and so did not check it often (Interview 5). Another remarked that it seemed more “social” than “parental,” and so was not interested in subscribing to the school’s Facebook account (Interview 6).

Twitter was preferred because it was linked on the schools’ and division’s websites, relevant posts could easily be accessed, the posts themselves were short and pertinent, and, in terms of emergency notification, Twitter was usually one of the first mediums used to update community members. Two of the interviewees also noted that they had Twitter feeds forwarded directly to their phone, making messages all the more convenient to access. One parent did

remark that she was occasionally frustrated by Twitter retweets though, since individuals who had not been keeping up often reintroduced and reinforced outdated or invalid information.

As staff members had indicated in their interviews, all three parents agreed that they loved seeing visuals online; pictures and videos of their child, or children they knew, doing things in the classroom. If anything, parents expressed a desire to see more of these types of posts.

Other CMC Preferences

In terms of directly conversing with the school for any concerns, all three parent interviewees stated that they were more likely to use phone or email to discuss matters with teachers or school administration. In the event that they were looking for specific information, they were most likely to use the school's website, which they found to be easier to search and navigate than either Facebook or Twitter. This feedback parallels the research findings of Thompson, Mazer, and Grady (2015), which demonstrate that there is a correlation between the mode of communication used and the complexity of the message being delivered; the more complicated a message the higher the level of media richness required to ensure that it is explained without misinterpretation.

Beyond these methods of communication, two parents suggested that they preferred the use of the StudentAchieve reporting system; a password protected database where teachers continually update students' marks so that students and parents can login to view the student's real-time progress. The two parents appreciated how StudentAchieve assisted them in flagging any missed assignments and/or addressing any obvious deficiencies in comprehension. Both interviewees noted, however, that the system was only effective so long as teachers were inputting marks in a timely fashion. Having checked the system a few times and found it

outdated, both quickly got out of the habit of logging in. The same comment was made regarding outdated or unfilled website information.

All three parents greatly appreciated the text/email notice application, Remind; a subscription based system where teachers provide parents with a code to access a class's feed. When a teacher sends out reminders, subscribers also have the ability to respond individually; thus facilitating a two-way conversation. The benefits of the system are that neither party is required to provide their personal information in order to communicate and both have the option of selecting how they would prefer to receive information, either through email or text message. The parents interviewed all preferred the convenience of having concise and timely messages delivered directly to their phone through text messaging. They did note, however, that the use of Remind is teacher specific, and is certainly not consistently employed by all division teachers.

Regardless of the CMC application used, parent interviewees consistently expressed that they were seeking personally relevant, useful, consistently updated, and conveniently accessible information from the school. This aligns closely with what staff had suggested most mattered to parents.

Traditional Communication Methods

As the parents I had interviewed were specifically selected because of their current engagement online and in their child's education, they were generally aware of the multitude of formats that their child's school used to forward information and tended to be attentive to all of them. These included newsletters, pre-recorded phone messages, Twitter, Facebook, the school website, and Remind. Two of the parents actually noted that they sometimes preferred receiving pre-recorded phone messages because they were conveniently delivered right to their home, they were short and pertinent, and there was not even any need to turn on the computer or login to a

system. Given that these are the responses from more engaged parents, staff observations that varied methods of communication are required to access the school's diverse population, and their concerns about the inability of the school to streamline or reduce these different methods, are certainly valid. Nonetheless, in keeping with the literature, parent interviews definitely reiterated that there are some situations where traditional approaches of communication remain more appropriate than digital approaches (Kosaretskii & Chernyshova, 2013; Lunts, 2003; Thompson et al., 2015).

Parent Frustrations

Two of the parents interviewed expressed frustration when they felt uninformed about school communication changes. For instance, one school had changed their Twitter user handle, which had not been widely broadcast. Another parent noted that she had been quite annoyed when she had learned the original school report card system only to have it switched after a year, forcing her to relearn a new system. This last point reiterates Lewin & Luckin's (2010) argument that schools must be cognizant of the need to "sensitively scaffold" technology, building on parents' previous understandings and strengths to encourage program utilization (p. 749).

As previously mentioned, all three parents remarked on the uselessness of CMC forums if they were not consistently updated. The comment was also made that there was a desire for more frequent and consistent posts by the school, allowing for more conversation and engagement with parents and community members. This stated desire by the parents interviewed does affirm teachers' concern about workload increasing as a result of parental expectations to have current and constantly updated online information.

Overarching Interview Themes

Based on discussions with both educators and parents, five prominent themes emerged when considering quality CMC that is engaging to parents. The first two factors came from producing posts that are *visually-based* and *personally relevant*. Parents also indicated that they are seeking *timely information* in an *expected and searchable format*. This suggests that the relative frequency of messages is important, as is parents knowing where to go to access information and being able to trust that that information will be consistently updated. The final universally sought factor emanates from *convenience*, inferring that individuals may use a mobile device to both post and receive information.

Rubric Pilot-Testing

While some testing occurred throughout the evaluative rubric's development, two specific pilot-tests were conducted in full. The first compared two division school's activity on the Twitter platform. The second compared one of the previously tested school's activity on both Facebook and Twitter platforms. Informed by the results of these efforts, there were three notable revisions to the rubric.

Originally, I had thought to evaluate the number of unique individuals posting information to school accounts, as well as the number of unique individuals responding to those posts. I had thought this may be useful information to determine the range of true activity by members. However, in beginning to try and collect this information, I quickly found two difficulties. The first stems from the realization that some schools will choose to have a single, stronger voice that maintains their brand and ensures that FOIPP requirements are addressed, while others will opt to have a multitude of voices contributing content. Neither choice is wrong, so much as it is a preference. The other impediment in measuring the number of unique

individuals responding to posts is that it quickly becomes an onerous task that is unlikely to be replicated. Especially since the value derived from the activity is almost negligible, only providing one simple mark out of a variety of more easily calculable factors. Consequently, I opted to remove the measure from the evaluation portion of the rubric, and addressed the concept in the reflection section.

Initially, I had endeavored to create one, all-encompassing table that could be used to evaluate different platforms, as required. However, I eventually realized that I could not account for the nuances that presented themselves in utilizing varied methods of communication. In my next iteration, I had aimed to address this by trying to include assessment tables for a multitude of platforms. This too created problems, as a large, cumbersome tool began to take shape. I knew that the sheer volume of this rubric would either irritate or overwhelm potential users, likely leading to its early dismissal. I eventually settled on a more complete set of tables that could be adapted to the platform being assessed. My hope is that this version will be sufficiently robust, simple, and flexible enough to be adapted to current and future platforms used by schools.

CHAPTER 5: DISCUSSION

Reviewing the Hypothesis and Project Discoveries

The original intent of this study was to determine what constitutes high quality CMC so that, regardless of platform, best practices could be transferred to emerging technologies quickly and effectively in order to maintain or improve parental engagement in the school. In analyzing the first-hand data collected from interviewees, I would argue that there is some validity to this hypothesis. Many of the comments and themes found in the staff and parent interviews reiterated and expanded the claims that had previously been made by reviewing the work of Lewin & Luckin (2010), Ellis (2015), and Zieger and Tan (2012). Based on the additional information found within the study, the following list of attributes parents require for CMC to be effective has been amended:

- ***Relevance/Personal Relevance*** - Not only should the CMC information be perceived as valuable but, whenever possible, it should focus on presenting material that directly impacts the parent and/or their child.
- ***Visually Engaging*** - Eye catching posts, with additional pictures and videos, are considered more engaging and receive higher response rates.
- ***Convenience*** - It should be easy to access the CMC from anywhere, particularly through use of a mobile device.
- ***Reliability/Consistency*** - Information should be trusted, accurate, and continually updated.
- ***Ease of use*** - No additional training should be required.

- ***Reciprocity/Conversation*** - Since the point of parental engagement is to create genuine relationships/partnerships, quality CMCs should be able to facilitate strong, two-way conversations.

However, my previous hypothesis understates the importance that platform itself plays in shaping quality CMC. In the interview data collected, both staff and parents explicitly stated that platform was a relevant factor in how they made decisions about where to find information. When pilot testing the early version of the evaluative rubric, which was designed to be a one-size-fits-all assessment, it quickly became apparent that the conceived structure failed to recognize the unique characteristics intrinsic to any given platform. For instance, while Facebook and Twitter are excellent for sending out and receiving feedback, these platforms do not lend themselves to be well organized or searchable when parents require specific information. As a result of this discovery, it became clear that platform, in itself, is a tool that communicators and administrators need to consider in leveraging CMC use. In the words of the renowned Marshall McLuhan, I found that the “medium is the message” (Playboy, 1969), or at least a significant enough portion of the message that it cannot be discounted.

The other surprising research finding came directly from staff interviews. A desire to implement a system for communications planning to both improve and streamline school efforts was conveyed. Unfortunately, the time and resources required to create such a plan were clearly overwhelming for staff members. Regardless, this indicated that a well-developed educationally-focused tool to assist in creating a robust communication plan would be welcomed by school division staff.

As a result of these realizations, the final evaluative rubric devised from this study has been modified. First, using MRT, consideration for the strategic potential of various platforms

has been incorporated into the overarching design. Second, a reflections section has been added to the rubric to encourage administrators/communicators to review their community's needs, current practice, areas of strength, targets for improvement, and extant human resources to implement the CMC afforded by a specific platform effectively. The factors included in this section are not necessarily measures for which a school should be "marked," *per se*. But, by including them in the evaluative rubric, they remain a relevant consideration in the development of a more formal strategic communications plan.

Devising the Evaluative Rubric: Putting It All Together

To begin devising the rubric in full, the experiences and conclusions of other researchers were used in tandem with the interview findings, which provided an educationally-based context specific to the Holy Spirit Catholic School Division. In particular, five of Kraut and Resnick's (2011) eight practical "levers of change" were employed as a starting framework to define aspects of quality CMC. These levers are identified as elements that may be manipulated to impact the design of online communities and increase user engagement. The five selected levers for this study include: content, tasks and activities; external communication; selection, sorting, and highlighting; presentation and framing; roles, rules, policies, and procedures.

In addition, the work of Christy J. W. Ledford (2012) was used to address the importance of platform selection. Ledford uses MRT, along with an understanding of organizational media control for both message development and distribution, as the basis for a strategic communications model for health organizations. The result is a deliberate aim to use specific platforms/modes of communication to deploy messages, depending on how best to counteract the level of equivocation/ambiguity in the message itself. For instance, there are times

when health messages need to be directed through firmer more institutional channels, such as during a state of emergency. On the other hand, public health messages may benefit from increased consultation with community (Ledford, 2012).

Using this information as a guide, the following categories have been selected to organize the final evaluative rubric: platform selection, content, activity, organization and governance. These categories will be reviewed in turn, describing how the literature, interviews, and rubric pilot-tests have aligned to justify their inclusion.

Platform Selection

Ledford (2012) notes that, based on media richness and the amount of control provided by a specific platform, there are appropriate times for an organization to strategically employ a range of mediums. Feedback from the parents interviewed reinforces Ledford's claim, as it was acknowledged that specific mediums were sought for distinct purposes. For instance, a phone call or email would be used to discuss matters directly with school staff. When looking for general information parents often referred to the school website, which they found to be easier to search and navigate than either Facebook or Twitter. If seeking information in an emergency situation, Twitter was often consulted, especially because it is linked to schools' websites and posts tend to be both short and pertinent.

Applying the typology supplied by Ledford, Table 1 summarizes communication platforms that schools use when communicating with the broader audience, their media richness, and the level of control exerted by the school/organization in distributing them. Figure 3 depicts this information in a visual matrix.

Platform	Computer - based or Traditional Communication	Media Richness Determinant				School / Organization Control	
		Feedback	Multiple Cues	Language Variety	Personal Focus	Message	Delivery
Facebook	Computer	Y	Y	Y	N	Y/N	N
Twitter	Computer	Y	Y/N	N	N	Y	N
YouTube	Computer	Y	Y	Y	N	Y/N	N
Website	Computer	N	N	Y	N	Y	N
Newsletters	Traditional / Computer	N	N	N	N	Y	Y
Phone calls (Recorded)	Traditional	N	Y	N	N	Y	Y
External signage	Traditional	N	N		N	Y	Y
Internal signage (bulletin boards)	Traditional	N	N	N	N	Y	Y
Correspondence	Traditional	N	N	N	N	Y	Y
Print ads / brochures	Traditional	N	N	N	N	Y	Y

Table 1: Application of Ledford's (2012) "Summary of Channel Characteristics" for Holy Spirit Catholic School Division, p. 179.

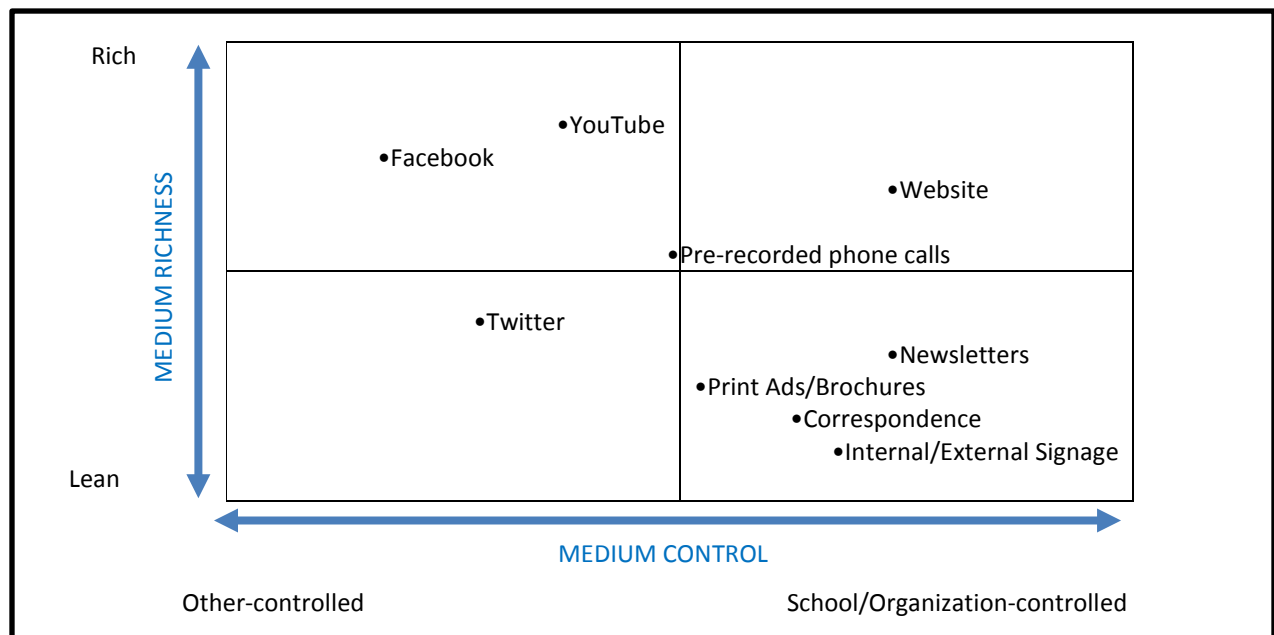


Figure 3: Application of Ledford's (2012) "Typology of Channel Selection" for Holy Spirit Catholic School Division, p. 179.

This is not an exhaustive list of communications used in a school since it does not include more individually focused channels like face-to-face conversations, emails, or student report card software. However, it is a fairly comprehensive list of the mass communication formats employed. What is immediately interesting to note is that the traditional mechanisms of communication, though consistently “leaner,” are more easily controlled. Further consideration of the strategic benefits of each of the mass communication channels currently used by schools within the Holy Spirit Catholic School Division is illustrated in Table 2. Implementation of this information is incorporated into the reflection portion of the final evaluative rubric.

Administrator/communicator consideration of what platform lends itself to specific messages is a valuable factor to review in advance of any pertinent or emergency level information being deployed.

Platform	Overall Media Richness	Organizational Control		Strategic Uses
		Message	Delivery	
Facebook	High	Y/N	N	<ul style="list-style-type: none"> Provides “a window into the classroom.” Showcase upcoming events/important information. References to other links/media. Polls/calls for opinions/consultation.
Twitter	Medium	Y	N	<ul style="list-style-type: none"> Provides “a window into the classroom.” Quick notifications, emergency. References to other links/media. Polls/calls for opinions/consultation
YouTube	High	Y/N	N	<ul style="list-style-type: none"> Showcase student work/learning in a way that encapsulates a variety of cues, increasing understanding. Possible to present school information in a more engaging visual way, providing resources to capture data quickly. Possible to archive interesting aspects of student life for posterity.
Website	Medium	Y	N	<ul style="list-style-type: none"> Expected to have the most recent and correct school information available. Information should be well presented/framed/organized. Search engine should also be available to assist audience in finding important information. Able to reference to other useful information sources easily.
Newsletters	Low	Y	Y	<ul style="list-style-type: none"> Comes out in a consistent/expected fashion to provide sufficient information to parents about important matters pertaining to the next month (usually). Tends to be written in easy to access language with headers to organize the document and highlight important details. Visuals can be included to increase interest and aid organization.
Phone calls (Recorded)	Medium	Y	Y	<ul style="list-style-type: none"> More ‘personal’ than a newsletter and can be delivered right into the home. While can’t provide as much detail as the newsletter can be effective in highlighting key reminders that might otherwise be overlooked in the newsletter. Can be sent in a consistent/expected fashion.
External signage	Low	Y	Y	<ul style="list-style-type: none"> Short, event-based reminders Specific to parents within the community or who consistently pick up their child from school.
Internal signage (bulletin boards)	Low	Y	Y	<ul style="list-style-type: none"> Fairly eclectic collection of reminders and updates about events going on in the school. Often used by outside organizations to broadcast community events.
Correspondence	Low	Y	Y	<ul style="list-style-type: none"> The official statement from the school. Used to provide further information, explanation regarding school position on a variety of matters.
Print ads / brochures	Low	Y	Y	<ul style="list-style-type: none"> A visual and more portable showcasing of specific school information. Useful as a hand out for people who may not use digital information sources or need a physical reminder to seek out more information later. Student/staff recruitment.

Table 2: Consideration of the strategic uses of school mass communication channels based on Ledford’s (2012) correlation between media richness and message control

Content

Tharon Howard's (2010) concept of significance refers to a community's reputation and ability to provide valuable, pertinent, and meaningful information. This aspect of Howard's RIBS heuristic is the one that schools are most attuned to, recognizing that they must provide accurate, useful, and meaningful content, consistently and frequently, while maintaining a persona of professionalism, integrity, and kindness. In terms of measurability for the rubric, these factors translate to an assessment of message accuracy, clarity, usefulness, and timeliness, along with being generally error free so as to maintain a school's good reputation as an institution of learning. These are all attributes that could easily be applied to any number of channels of communication, both computer-based and traditional. When referring to online communities more specifically though, Kraut and Resnick (2011) note that quality content is invaluable as a means of increasing user contribution and commitment in order to move towards "critical mass." Critical mass, as articulated by Everett Rogers (2003), refers to the point in a community's development when there are enough people participating to ensure that the system is either self-sustaining or growing.

The interviews conducted add to the concept of content that parents prefer messages that provide a window into the classroom, which is to say that they give parents a sense of what their child has been learning and doing at school. This information is enhanced when additional visuals, like pictures and videos, are included. Given parents natural desire to see their own child, or children that they know, a multitude of pictures that display a wide variety of the school's population are preferred and will be rated more highly.

Alternatively, posts that are a one-way transmission of information do not appear to "get a lot of traction" with parents (Interview 2). While sending out quick, one-way reminders can be a

benefit of social media sites, if the majority of posts are of this ilk then parents will become less interested in the school's account overall. Consequently, if the school's posts are comprised of a higher percentage of one-way transmission messages, assessment in this area will be negatively impacted.

Activity

Activity speaks to how frequently and predictably information is updated, as well as the amount of reciprocal responses sent between the school and the online audience. Obviously, this measure applies more to school social media accounts, which provide the opportunity for almost instantaneous feedback. It stands to reason that an assessment of the number of subscribers, the number of posts, their frequency and predictability, and response rates would all be used as indicators of platform activity efficacy.

Additional information regarding the number of staff members participating in the school social media account may also be insightful. Based on staff interview findings, staff members have the potential to be valuable and active contributors on school accounts. The benefits of encouraging their participation include: a higher number of posts that the school can re-share or re-tweet; a resultant variety of posts that cast a broader perspective on life within the school, appealing to a wider array of parents; the potential to impart the personality of participating staff members to parents, thus increasing staff approachability; and an overall reduction in workload as, hopefully, quality posts are constructed by many.

Organization

Kraut and Resnick's design levers: presentation and framing; external communication; selection, sorting, and highlighting; all speak to how a platform can be best organized.

Presentation and framing becomes an especially important aspect of assessment for leaner, more

static platforms, such as the school website or newsletters. The *raison d'être* of these modes of communication is to provide accurate and valuable information as reliably as possible, in as few steps as possible (Bradbard & Peters, 2010). Consequently, meaningful headings and links that lead people to the precise information they are seeking are essential. This is not to suggest that presentation and framing is not important in other, richer mediums. However, a template is often in place for these platforms, making school level manipulation almost nonexistent and, thus, difficult to assess.

External communication denotes mechanisms that draw people to a platform to participate. In a school setting, having a variety of means of ensuring that parents are aware of the alternate channels that schools are using to communicate seems self-evident. Unfortunately, this information is not always easy to broadcast, as I had learned in conducting one of my parent interviews. The parent seemed both frustrated and embarrassed to learn that the school had changed its Twitter handle/account. She expressed that, had she known of its existence, she certainly would have subscribed. As a result of this information, to better assess external communication, reviewing a variety of other school communication outlets to see if there are links or references to alternate CMCs will be conducted.

Another aspect of external communication stems from the ability of a platform to provide push notifications to users. This convenience was appreciated by both staff and parent interviewees, who liked having information forwarded directly to their phones whenever possible. While the ability of a platform to automatically provide notifications to users is an unquestionable benefit, and should be considered by communicators in selecting a channel to deploy a message, this is an attribute shaped more by the platform itself than by the school.

Selection, sorting, and highlighting speak to the search-ability of the data in a given platform. Parent interviewees recognized that some channels of communication, such as the school website, were more clearly organized and searchable than others, and often preferred to use those mediums to find pertinent information. However, parents also expressed a great deal of frustration at having taken time to seek information in an expected location and discovering that it had not been updated -- sometimes for years.

Governance

Kraut and Resnick's (2011) discussion of *roles, rules, policies, and procedures* speaks to the need for regulation and governance. This is demonstrated in a community by members' clear understanding of what is expected to be appropriate behaviour, their subsequent compliance to this expectation, and the way that any inappropriate behaviour is addressed. The more open and democratic the rules of conduct are, the higher the rating for the platform. However, again often as a result of the template provided by some CMCs, it is difficult for schools to control and manage a means of ensuring that clear expectations are provided. Fortunately, given my conversations with staff members, poor online behavior seems seldom to be an issue. Regardless, this is a factor that administrators/communicators should consider how best to address before being faced with a difficult situation. Consequently, an area has been added to the reflection portion of the rubric.

About the Rubric: Notes and Rationales

The final evaluative rubric has been developed into three distinct parts. The first is intended to consider the school's profile and capture demographic characteristics that may impact communication efforts. The second table is based on the desire of staff members to develop a more robust school communications plan. The measures included in this section are not value based; that is to say that there is no right or wrong answer for any of them. Rather, they are aspects that should be considered in using any given platform, ensuring that the tool is effectively meeting the needs of the school and that sufficient resources are available to implement and maintain it. The final set of tables comprises the assessment portion of the rubric and considers a platform's content, activity, organization, and governance.

While the effort to mark a school's CMC does present some challenges, it has always been my intent to quantify the concept of quality CMC, operationalizing it as a variable that could later be used to determine if there is a correlation between CMC use and the level of parental engagement. As a result, I have developed a marking structure out of 5 that can be easily converted into percentages. Though I considered setting the marking structure of the assessment tables out of 10, in order to provide more variability, this marking structure was selected for two reasons. First, as most of the individuals using this rubric will likely be educators, they will be familiar and comfortable using a rubric marking scheme out of 4 or 5. Second, for some areas, creating a spectrum of 10 that has sufficient distinctions between each category is both challenging to create and potentially overwhelming to mark. I also had concerns that an expanded marking spectrum would make the tool overly cumbersome, thus diminishing the probability that it would be used.

The finalized rubric is meant to be flexible to the needs of the user. Any platform being analyzed will have some areas of assessment that simply do not apply. Further, schools should be graded on factors that are, for the most part, within their control. For instance, as Facebook and Twitter both have firm templates and established systems for notifying users of updates, schools themselves cannot be evaluated on these aspects of analysis, but should still be aware of them. If a question cannot be answered due to insufficient information or because it is a factor that a school cannot be rated on, then it is expected that the area will be marked “n/a” and that the total will be reduced accordingly.

The Evaluative Rubric

This tool is intended to be a dynamic and flexible guide to assist school administrators/communicators in considering and evaluating the communication needs of the school, current practice strengths, and targets for improvement to develop a robust communications plan. There are three separate parts of this evaluative rubric:

Part 1: School Information – To review a school’s profile and consider areas that need to be addressed as a result of the unique structure of the school community.

Part 2: Reflections on Platform Characteristics – To review a specific platform’s strengths and weaknesses and how the platform may be best implemented in the school.

Part 3: Assessment of Platform Practice –To assess the school’s use of a platform’s content, activity, organization, and governance.

If, for some reason, a question cannot be answered, perhaps it does not apply or there is insufficient information, just mark the area “n/a” and alter the marking scheme accordingly.

PART 1: SCHOOL INFORMATION	
School name:	
Principal:	
Grade configuration:	
# of students:	
# of staff:	
School Population (students + staff):	
Urban or Rural?:	
Linguistic considerations of the school community:	
Socio-economic considerations of the school community:	
Methods of communication currently employed by the school:	<p>Computer-mediated:</p> <p><input type="checkbox"/> Website <input type="checkbox"/> Facebook <input type="checkbox"/> Twitter</p> <p><input type="checkbox"/> Remind <input type="checkbox"/> YouTube <input type="checkbox"/> Other _____</p> <p>Traditional:</p> <p><input type="checkbox"/> Newsletter <input type="checkbox"/> Correspondence <input type="checkbox"/> Recorded Phone Calls</p> <p><input type="checkbox"/> Print Ads <input type="checkbox"/> External Signage <input type="checkbox"/> Internal Signage</p> <p><input type="checkbox"/> Other _____</p>

PART 2: REFLECTIONS ON PLATFORM CHARACTERISTICS

Name of existing account, if applicable:				
Time period of analysis:				
Date analysis is being conducted				
Purpose of platform: <i>What are the most important features of this platform? How will it benefit the school community?</i>				
Human resource organization: <i>How is the platform currently managed by staff? Is this effective? What changes could be made?</i>				
Platform lead:		Level of interest:	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low <input type="checkbox"/> None	Level of experience: <input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low <input type="checkbox"/> None
Platform team:				
Expectations for staff activity: <i>How should staff contribute? How will this be encouraged?</i>				
Platform convenience /training: <i>How easy is the platform to use? Is additional training required? For whom? By whom?</i>				
Governance: <i>How will negative behaviours be addressed? How will people be informed of these expectations?</i>				
Feedback: <i>Can subscribers provide feedback? How quickly?</i>				
Language: <i>Does the platform provide translation assistance for English language learners?</i>				
Message Content Control: <i>How much control over message content does the school have?</i>	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low	<input type="checkbox"/> None
Message Delivery Control: <i>How much control over message delivery does the school have?</i>	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low	<input type="checkbox"/> None

PART 3: ASSESSMENT OF PLATFORM PRACTICE					
Total # of followers:		Total # of posts:			
# students		# staff		School population (# students + # staff):	

ACTIVITY						
	1	2	3	4	5	
% of followers in comparison to school population:	1-19%	20-39%	40-59%	60-79%	80-100%	/5
# of followers that are school staff:	<i>(retain to calculate percentage below)</i>					
% of followers that are school staff in comparison to total # of school staff:	1-19%	20-39%	40-59%	60-79%	80-100%	/5
Frequency of posts – <i>messages are sent out relatively often. The result reflects the average frequency:</i>	Less than monthly	Monthly	Weekly	Daily	Multiple times daily	/5
Reliability of posts – <i>how predictably messages are sent out:</i>	Very unpredictable	Fairly unpredictable	Somewhat unpredictable	Fairly consistent	Very consistent	/5
# of posts that have received a response:	<i>(retain to calculate percentage below)</i>					
% of posts that have received a response:	1-19%	20-39%	40-59%	60-79%	80-100%	/5
If response received on post, average # of responses received:	0-1	1-2	2-3	3-4	5 or more	/5
TOTAL ACTIVITY SCORE						/30
OBSERVATIONS/NOTES:						

ORGANIZATION/GOVERNANCE						
	1	2	3	4	5	
External Communications:	No other school CMC indicates that the assessed platform exists	1 school CMC indicates that the assessed platform exists	2 school CMCs indicate that the assessed platform exists	3 school CMCs indicate that the assessed platform exists	4 or more school CMCs indicate that the assessed platform exists	/5
System for notifications:	No notifications sent.	/	Notification possible if set by user.	/	Automatic notifications sent by text or email.	/5
Information is organized and searchable:	Not well organized. No clear ability to search for information.	Not well organized. Ability to search available		Well organized. No clear ability to search for information.	Well organized. Ability to search available.	/5
Expectation of behaviour:	Not clearly outlined. Many individuals not acting appropriately	Not clearly outlined. Some individuals not acting appropriately	Not clearly outlined, but all generally adhere to normative conduct	Clearly outlined, inconsistently adhered to. Most individuals acting appropriately	Clearly outlined and adhered to. All individuals acting appropriately	/5
TOTAL ORGANIZATION/GOVERNANCE SCORE						/20
OBSERVATIONS/NOTES:						

	SCORE	PERCENTAGE
CONTENT	/25	
ACTIVITY	/30	
GOVERNANCE/ ORGANIZATION	/20	
TOTAL	/75	

CHAPTER 6: CONCLUSIONS

Limitations and Future Study Considerations

Further testing of the rubric would be very helpful to continue to verify its efficacy. Approaching other individuals to conduct additional pilot tests will aid in confirming that the language and concepts used in the rubric are understandable by the majority of adults that would be employing the tool. Experimentation on CMC platforms outside of the Holy Spirit Catholic School Division would validate broad applicability of the tool. Significant testing of a multitude of school CMC platforms may help discern if there are measures within the rubric that are more important and/or relevant than others. Should this last factor be discovered, the weighting and marking structure of the assessment portion of the rubric will require modification.

As has been stated since this project's inception, the aim in developing the evaluative rubric was to provide a means to quantify the concept of quality CMC. The next step in the process would be to use this quantitative information to determine if there is, in fact, a correlation with the level of parental engagement expressed within division schools.

An interesting challenge that emerged through the literature review was based on how CMC may be useful to decrease parent fear of being judged as a result of economic status, minority background, or language barriers. While the literature suggests that face-to-face conversations remain the most likely way to create strong bonds and likeability (Okdie, Guadagno, Bernieri, & Geers, 2011), it would be useful to see if this claim remains accurate in an educational context, as opposed to a social one.

Concluding Remarks

Rudestam (2007) states that “research based on hastily thrown together instruments, which lack sufficient pretesting and are questionable in terms of reliability and validity, is of little scientific value” (p. 98). In an effort to build a robust research tool for future use, I employed an iterative process based on current literature, the context found in interviews with school staff and parents, and the development and testing of several revised versions of an evaluative rubric to assess the quality of CMC. While the intended result of this work was to be a tool that identified and evaluated factors of quality independently of the platform being used, the research process actually reinforced that platform is, in itself, a communication tool that can and should be used strategically to support quality CMC. This finding, along with the expressed desire of school staff to have a strategic plan to work from, has altered and expanded the finalized evaluative rubric so that aspects of reflection and assessment have been incorporated, encouraging school administrators and communicators to consider and strengthen practice with the goal of developing a robust school communications plan. The end result of this work has been the development of a tool that is far from “hastily thrown together.”

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APPENDIX A: Listing of Holy Spirit Catholic Schools and Demographic Factors

School	Community	Urban or Rural?	Grade Configuration	Sept. 30, 2014 Enrolment	Sept. 30, 2015 Enrolment	French Immersion? (Yes or No)
Catholic Central High School (Including Trinity Learning Centre)	Lethbridge Core	Urban	10-12	784	775	Yes
Children of St. Martha School	Lethbridge West	Urban	PreK-6	243	226	No
Ecole St. Mary	Lethbridge Core	Urban	PreK-6	433	449	Yes
Father Leonard Van Tighem School	Lethbridge West	Urban	PreK-9	566	575	No
Our Lady of the Assumption School	Lethbridge South	Urban	PreK-6	263	252	No
St. Catherine School	Picture Butte	Rural	PreK-9	160	169	No
St. Francis Junior High School (Including CARE Campus)	Lethbridge Core	Urban	7-9	452	518	Yes
St. Joseph School	Coaldale	Rural	PreK-9	271	293	No
St. Mary School	Taber	Rural	6-12	261	259	No
St. Michael's School	Bow Island	Rural	PreK-12	96	102	No
St. Michael's School	Pincher Creek	Rural	PreK-12	388	403	Yes
St. Patrick Fine Arts Elementary School	Lethbridge West	Urban	K-6	321	301	No
St. Patrick School	Taber	Rural	PreK-5	203	200	No
St. Paul Elementary School	Lethbridge North	Urban	PreK-6	388	407	No
Holy Spirit Catholic School Division				4835	4929	

APPENDIX B: Participant Information and Consent Form

Working Title of Study:

What Constitutes Quality? Developing a tool to analyze the quality of computer-mediated communication forwarded by schools within the Holy Spirit Catholic School Division

Research Investigator:

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Background

- You are being asked to participate in this study because of your knowledge and experience with computer-mediated communication (CMC) originating from a school within the Holy Spirit Catholic School Division.
- Holy Spirit Catholic School Division has been selected for this study because I am an employee of the school division.
- The information I gather in our interview will be used to develop a rubric/survey tool. This tool will help schools assess current communication practices and identify areas for improvement to increase parent engagement in their child's education.
- This research is the capstone culmination of my work in the Masters of Arts in Communication and Technology (MACT) program with the University of Alberta.

Purpose

- The purpose of this project is to conduct research that will inform the development of a tool to measure/analyze the quality of school-based CMC, primarily through the analysis of perceptions surrounding 'official' school Facebook and Twitter social media accounts.
- This research involves interviews with both parents and education staff.
- The tool will help division schools assess current communication efforts and identify areas for improvement. In future research, this data may be used to determine if there is a relationship between the quality of CMC forwarded by schools and the level of engagement expressed by parents/guardians.

Study Procedures

- Six to twelve semi-structured interviews will be conducted; half with Holy Spirit School Division staff members and half with parents/guardians.
 - Staff members will be selected based on their expertise with current social media use in schools and how this practice impacts parent engagement.
 - Parents/guardians will be selected based on either staff recommendations, or my own knowledge, of their engagement in school social media.

- Preferably, each interview will be conducted in person and scheduled to take place in a quiet and private location that is mutually convenient.
- Ten to eleven interview questions will be asked about your experience with the CMC /social media used by the school with which you associate.
 - I anticipate that the interview will take approximately 30 to 45 minutes.
 - I will make a computer available during the interview so that you may refer to the school's current social media if you wish.
- The interview will be recorded via:
 - Digital audio-recording device
 - A speech-to-text application
 - Notes occasionally taken by myself during the interview
- Transcripts will be created from the interviews. Any of my notes will be appended to these transcripts and promptly shredded. All of these documents will be analyzed to find emerging patterns.
- Existing research literature will be considered with the collected feedback to inform the development of an evaluation rubric/survey tool.
- The content from the Facebook and Twitter accounts of two division schools will be pilot tested with the devised rubric/survey tool.

Benefits

- There are no known personal benefits associated with this study.
- It is hoped that the development of an evaluative tool to measure quality computer-mediated communication will help the school division assess current communication efforts and identify areas for improvement.

Risks

- There are no foreseeable personal risks associated with this study.

Voluntary Participation

- Participation in this study is completely voluntary. You are under no obligation to participate.
- Even if you agree to be in the study, you can change your mind and withdraw at any time.
- During the interview, you can request to stop the interview, or skip any questions, at any time.
- At your request, your data may be withdrawn from the project any time up to May 31, 2016.
- There are no penalties or consequences for withdrawing from this project.
- To withdraw from the study, please contact me by email or phone to let me know of your decision.
- If you decide to withdraw from the study, any data collected from you will be destroyed (hardcopy interview transcripts) and deleted (digital audio and speech-to-text files).

Confidentiality & Anonymity

- The results of this research will be used primarily for completing project requirements. A summary of the results may also be shared with the Holy Spirit Catholic School Division. However, no individual interviewee will be identified.
- The data gathered for this study will be kept confidential. Only the researcher investigator will be able to access your personal data.

- The researcher will endeavour to protect anonymity.
 - Interviewees will not be told who else is participating in the study.
 - All data gathered for this study will be anonymized and analyzed.
 - Participant names and identifying information will not be included in the transcripts.
 - Names of other individuals mentioned in interview will not be included in the transcripts. They will, instead, be recorded as “xxx”.
- Research data will be kept electronically by the researcher for a period of five years following the completion of the study. All electronic data will be password protected and stored on the researcher’s computer on a password protected account.
- The data from this study may be used in future research, but to do this it will have to be approved by a Research Ethics Board.
- After five years, the transcribed and archived versions of all data will be destroyed in a way that ensures that privacy and confidentiality are maintained.
- If you are interested in receiving a copy of the completed capstone report after final grades have been assigned, please indicate “Yes” in the box below.

Further Information:

If you have any further questions regarding this study, please do not hesitate to contact:

Anisha Gatner

Email: agatner@ualberta.ca or gatnera@holyspirit.ab.ca

Phone: (403) 393-3708

The plan for this study has been reviewed for its adherence to ethical guidelines and approved by Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.

Consent Statement:

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I agree to participate in the research study described above and will receive a copy of this consent form. I will receive a copy of this consent form after I sign it.

Participant’s Name (printed) and Signature

Date

Name (printed) and Signature of Person Obtaining Consent

Date

Would you like to receive a copy of the research report after final grades have been assigned?

☐ Yes

☐ No

If yes, what email/mail address should I direct the report to? _____

APPENDIX C: Principal/Staff Member Interview Instrument

Interview Preparation:

Preferably, face to face interviews will be arranged. I will ensure that a computer is set up with the appropriate links to the division schools' Facebook and Twitter accounts, for quick reference. Should the participant only be able to conduct the interview by phone, I will let them know that they may wish to refer to their school's Facebook and Twitter accounts and are encouraged to have the pages available to them for the duration of the conversation.

Preamble:

Good morning/afternoon/day,

Thanks so much for agreeing to talk with me today. As you know, I'm currently working towards my Masters of Communications and Technology with the University of Alberta. My capstone is focused on developing a way to evaluate the quality of computer-mediated communication to support parental engagement at the school level. By "computer-mediated communication," I simply mean any communication that takes place using a computer. For the sake of this study, I am specifically exploring this through social media, like Facebook and Twitter.

I have 11 questions for you to consider today that will help me to determine what you think is important, useful, and valuable about your school's communication practices, particularly in reference to the use of Facebook and Twitter. I expect that the interview will take between 30 to 45 minutes.

Just a few Reminders:

- *You are free to discontinue the interview at any time.*
- *You do not have to answer any questions you are not comfortable answering.*
- *I will be recording the interview to ensure transcript accuracy. Is this alright with you?*
 - *[If "No", then proceed by taking detailed notes]*
 - *[If "Yes", then proceed with recording]*

Demographic Data:

School:

Role in the School's CMC:

Questions:

[These questions will be used to guide conversation. However, conversation will follow the lead of the interviewee. If questions are answered already in another area, they won't be repeated. Follow up questions may be asked if interviewees bring forward a different perspective that requires clarification. Sub-questions are presented to help lead conversation if respondents are unsure how to answer, or if their answer seems incomplete.]

1. Tell me about how your school uses computer-mediated communication to communicate with parents? [How is it organized? Who is in charge? Who is involved?]
2. What approaches to CMC do you find most effective in efforts to engage parents? Why?
3. What would you say are the benefits of using CMC for communicating with parents?
4. What would you say are the concerns for using CMC for communicating with parents?
5. Tell me about your school's use of Facebook for parental engagement? [Do you think it is effective? How well received is Facebook by parents?]
6. Tell me about your school's use of Twitter for parental engagement? [Do you think it is effective? How well received is Facebook by parents?]
7. Can you tell me about a post the school sent out that was really effective in engaging parents? What was it about that post that was so effective?
8. Can you tell me about a post that the school out that you thought would receive more attention than it did? Why do you think the post wasn't as popular?
9. What are you most proud of in how your school has addressed CMC and engaged parents?
10. What do you think the school will need to do to encourage CMC and engage parents in the future?
11. Are there any other factors you feel would be important for me to know in regards to the use of CMC for parental engagement at your school?

Thank you so much for your time today. I really appreciate your insights.

APPENDIX D: Parent/Guardian Interview Instrument

Interview Preparation:

Preferably, face to face interviews will be arranged. I will ensure that a computer is set up with the appropriate links to the division schools' Facebook and Twitter accounts, for quick reference. Should the participant only be able to conduct the interview by phone, I will let them know that they may wish to refer to their school's Facebook and Twitter accounts and are encouraged to have the pages available to them for the duration of the conversation.

Preamble:

Good morning/afternoon/day,

My name is Anisha Gatner. I work for the Holy Spirit Catholic School Division and am currently working towards my Masters of Communications and Technology with the University of Alberta. My capstone is focused on developing a way to evaluate the quality of computer-mediated communication to support parental engagement at the school level. By "computer-mediated communication," I simply mean any communication that takes place using a computer. For the sake of this study, I am specifically exploring this through social media, like Facebook and Twitter.

[Name] from [school], had suggested that you would be a great resource to answer a couple of questions about what you think is important, useful, and valuable about your school's communication practices, particularly in reference to the use of Facebook and Twitter. I have 10 questions for you to consider today. I expect that the interview will take between 30 to 45 minutes.

Just a few Reminders:

- *You are free to discontinue the interview at any time.*
- *You do not have to answer any questions you are not comfortable answering.*
- *I will be recording the interview to ensure transcript accuracy. Is this alright with you?*
 - *[If "No", then proceed by taking detailed notes]*
 - *[If "Yes", then proceed with recording]*

Demographic Data:

School your child attends:

Questions:

[These questions will be used to guide conversation. However, conversation will follow the lead of the interviewee. If questions are answered already in another area, they won't be repeated. Follow up questions may be asked if interviewees bring forward a different perspective that requires clarification. Sub-questions are present to help lead conversation if respondents are unsure how to answer, or if their answer seems incomplete.]

1. When you want to communicate with the school, where is the first place you go? Why?
2. How best do you like to have the school communicate with you through CMC? Why?
3. Do you use Facebook in your interaction with your daughter's/son's school?
 - a. What do you like/dislike about this platform?
4. What does the school do well in their use of Facebook?
5. What does the school need to improve on in their use of Facebook?
6. Do you use Twitter in your interaction with your daughter's/son's school?
 - a. What do you like/dislike about this platform?
7. What does the school do well in their use of Twitter?
8. What does the school need to improve in in their use of Twitter?
9. In terms of the school's use of CMC, what could they do more or less of to encourage parent engagement/interest/conversation?
10. Is there anything else that you think I should know in terms of how your child's school is using social media to communicate?

Thank you so much for your time today. I really appreciate your insights.