

Digital Parent-Teacher Communication: Effectiveness and Impact

Digital Parent-Teacher Communication: The Effectiveness of Using Technology to Facilitate
Parent-Teacher Communication and its Impact on Parent Involvement

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Abstract

The purpose of this study is to determine the following; parent and teacher perceptions of digital communication, parent/teacher preferences, and how digital communication impacts parent involvement. The sample consisted of three 4th grade teachers and four parents of students in the 4th grade. Subjects came from a local school in Johnson City, Tennessee and participated in interviews via Zoom or in person. Parents were asked to share their experiences with technology and teacher communication, while teachers were asked to share their experiences with technology, parent communication, and parent involvement. Both parents and teachers cited benefits of using technology to communicate with one another. Both parties believed that technology has increased communication between each other and thus increased parent involvement. Teachers believed that technology has increased daily communication, while parents believe that technology has made communication easier. The responses in this study echo the existing data on parent involvement, parent and teacher communication, and the benefits of technology as a method of parent, guardian, and teacher communication.

Key Words: Parent involvement, technology, communication

Milligan University IRB Approval



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Date: March 5, 2021

From: The Institutional Review Board (IRB) at Milligan University

Re: *Digital Parent-Teacher Communication: Using Technology to Facilitate Parent-Teacher Communication and Its Impact on Parent Involvement*

Submission type: Expedited Review

Dear Lindsey Grow:

On behalf of the Milligan University Institutional Review Board (IRB), we are writing to inform you that your study, *Digital Parent-Teacher Communication: Using Technology to Facilitate Parent-Teacher Communication and Its Impact on Parent Involvement*, has been approved as expedited. This approval also indicates that you have fulfilled the IRB requirements for Milligan University.

All research must be conducted in accordance with this approved submission, meaning that you will follow the research plan you have outlined here, use approved materials, and follow university policies.

Take special note of the following important aspects of your approval:

- Any changes made to your study require approval from the IRB Committee before they can be implemented as part of your study. Contact the IRB Committee at IRB@milligan.edu with your questions and/or proposed modifications.
- If there are any unanticipated problems or complaints from participants during your data collection, you must notify the Milligan University IRB Office within 24 hours of the data collection problem or complaint.
- Your Milligan IRB Approval Code is: MU2103051530

The Milligan University IRB Committee is pleased to congratulate you on the approval of your research proposal. Best wishes as you conduct your research! If you have any questions about your IRB Approval, please contact the IRB Office and copy your faculty advisor if appropriate on the communication.

On behalf of the IRB Committee,

Trini Rangel, Ph.D.
Chair, Institutional Review Board
Milligan University



Chapter 1

Introduction

In the course of every teacher candidate's training, he or she learns about fostering parent/guardian involvement in student academics. This is because research has shown that one of the most important factors in academic success is parent/guardian involvement (Park, Stone, & Holloway, 2017). One way to foster this involvement is through parent/guardian and teacher communication. There are many ways for caregivers and teachers to communicate, but technology is becoming the most popular. Since the emergence of COVID-19, teachers and parents have been forced to become "tech savvy" in order to give their students/children academic instruction. Technology has been helpful in many ways over the past year, but as schools continue to reopen, barriers are becoming more apparent. While teachers and parents have many resources available to facilitate communication, there is still concern and confusion among parents and teachers. The focus of this study is the effectiveness of digital parent/guardian and teacher communication at the elementary school level and what can be done to improve such communication.

Since the beginning of COVID-19, there has been a significant strain on educators. Hybrid schedules and new technology have completely altered the classroom, while ushering in new barriers to parent communication and involvement. Although tools such as Zoom and Google Meet allow teachers and parents to converse "face-to-face," there is still a breakdown in communication. For parents who do not have access to technology, these tools are inconsequential. For parents who do have access, learning how to use new technology and then help their child at home is a tedious process. Often, this results in unfinished work and more class time spent on old content. One purpose of parent-teacher communication is to eliminate

such frustration and confusion. For this reason, it is necessary to study the effectiveness of digital communication, its effect on parent/guardian involvement, and how it can be improved.

Statement of the Problem

Parent/guardian and teacher communication has been studied for decades, for it has proven to be connected with parent involvement (Park et al., 2017). Over these years, data has revealed that parent involvement can increase academic success (Park et al., 2017) and foster positive relationships between parents and children (Deleon, 2018). Pre-service teachers are often required to take one or more courses in parent involvement, demonstrating the importance of parents in education. Existing research cites many ways to increase parent involvement: webinars, parent-teacher conferences, home visits, telephone calls, email, digital applications, class newsletters, and classroom aides (Hall & Bierman, 2016). All of these strategies focus on communication between parents/guardians and teachers. Without this communication, parent involvement will decrease and students will not have as many resources for academic success (Bergman & Chan, 2017; Deleon, 2018). Even when parents and teachers communicate, if they do not communicate effectively, involvement will not increase (Higgins and Cherrington, 2017). If parents and teachers wish to increase student achievement, effective communication between both parties is essential.

Technology is an accessible tool for both caregivers and teachers, thus making it a preferable method of communication. While technology lends itself to rapid, widespread communication, using it in a way that meets the needs of parents, teachers, and students must be determined. It must also be determined how using technology as a communication tool impacts parent involvement. For this reason, educators must research different digital communication methods, parent demographics, and how these factors affect parent involvement.

Purpose of the Study

In the midst of the COVID-19 pandemic, technology has become a necessity for most educators. Given that 92.6% of parents use the internet at least one hour a day (Natale & Lubniewski, 2018), communicating via technology has become a relevant method of parent-teacher correspondence. The purpose of this study is to determine parent and teacher perceptions of digital communication as well as how digital communication impacts parent involvement. This study will look at both perspectives (parent and teacher) because it is vital educators know both sides of the story. Caregivers and teachers may have different perspectives on technology for different reasons, which can impact their preferred method of communication. Some parents/guardians and teachers may prefer to use only technology to communicate, while others may prefer face-to-face communication. Investigating parent and teacher perspectives and preferences will ultimately determine the impact digital communication has on parent involvement.

Significance of the Study

Parent/guardian involvement has been researched and proven to increase academic achievement as well as social and emotional development (Deleon, 2018). Involvement is often fostered by effective communication between teachers and caregivers. This communication has many forms, but the most relevant one is technology. From business to healthcare, technology has enabled people to continue working and communicating in the midst of COVID-19. In the classroom, technology has allowed educators to continue teaching and assisting both students and parents. Given the importance of technology in today's classroom, this study will shed light on how to use it as an effective communication tool. This study will specifically determine how

teachers and parents prefer to communicate, the types of technology they are comfortable using, and how digital communication affects parent involvement.

Research Questions

The following research questions will be used to guide the research process and collect data. These questions narrow the topic of digital parent-teacher communication to gather information on preference, technology tools being used, and how these tools affect parent involvement.

1. Has technology significantly changed communication between parents and teachers?
2. How do parents/guardians and teachers prefer to communicate with each other?
3. What newer, more technological forms of communication between teachers and parents/guardians have been identified as the most effective, and what about them is ineffective?
4. Does using technology to communicate with parents/guardians affect their level of involvement?

Assumptions/Limitations

In this study, it is assumed that teachers and parents/guardians rely on technology as a form of parent and teacher communication. Given the COVID-19 pandemic, technology has been critical in sustaining classroom functions. While it has been used to maintain academic learning, some teachers and parents may not rely on technology as a primary form of communication. It is also assumed that most teachers have reliable access to technology. While most schools administer a desktop computer or laptop to teachers, wifi effectiveness may vary and impact the methods teachers use to communicate with caregivers. The major limitation of this study is the sample. While many teachers and parents/guardians will be asked to volunteer

for an interview, there is no guarantee how many will participate. Besides sample size, the variety of participants is limited to parents/guardians and teachers in one school in the East Tennessee area. With only one school, perspectives and responses can only be compared to different teachers and parents within that school instead of other schools.

Definitions

The following terms will be used throughout the study and must be defined at the outset:

- Parent/guardian: The individual(s) responsible for the physical, social, emotional, and academic well-being of a student.
- Parent Involvement: The degree to which parents/guardians participate in their child's academics, both inside and outside of the classroom.
- Digital Communication: The use of technology (apps, websites, phones, email) to communicate.
- Parent-Teacher Communication: Any interaction (digital or in-person) between parents and teachers that relay academic and/or personal information.
- Educational Technology: Applications (apps) or websites used by parents, students, and school personnel for educational purposes.

Chapter 2

Literature Review

In order to determine where and how digital communication between parents and teachers is failing, a review of existing literature must be conducted. This literature review specifically addresses four themes: frequency and effectiveness of parent-teacher communication, parent and teacher accessibility to technology, parent and teacher perspectives on educational technology, and the effectiveness of technology as a form of parent-teacher communication.

Frequency and Effectiveness of Parent and Teacher Communication

The effects of parent-teacher communication have been a topic of interest for many years. As constructivist approaches replaced traditional objectivist approaches in the classroom, parent-teacher partnerships became increasingly important. While teachers are the primary sources of student learning at school, parents/guardians have the potential to continue this role outside of the classroom. In a study on the use of communication and technology between parents and school professionals, Natale and Lubniewski (2018) note that

It is important for educational professionals to recognize that the family acts as its own system separate from the school setting. As the forefront of socialization, schools and families act as the prime facilitators (Kraus, 1998). Therefore, educational personnel, specifically school counselors, and families must work to combine these systems to be a cohesive social and academic experience. (5)

In an effort to build bridges between teachers and parents, communication has become a top priority in education. Effective parent-teacher communication can open doors for students and cultivate rich, meaningful relationships.

Countless studies have examined the effects of such partnerships on academic achievement as well as parent, student, and teacher relationships. In a study of 914 public elementary schools, researchers at UC Berkeley aimed to extend prior research on school-based parental involvement (Park et al., 2017). Using longitudinal data from schools in the four geographical areas in the United States, this study focused on school-level benefits instead of individual benefits (i.e., on solely parents or solely students). The researchers used quantitative measures to determine the effects of parent involvement (PI) on the school as well as individual students. These results were compared to draw conclusions on how school-based PI impacts the learning environment and school-wide functions. Based on the data collected, school-based PI (PTO/PTA involvement, volunteering, and fundraising) not only stimulated the learning environment but resulted in higher test scores (p. 202). Furthermore, individual students can benefit from school-based PI even if their own parent is not involved. Simply having many parents involved in their child's academics can benefit *all* students. The results of this study revealed that while home-based PI is often associated with academic achievement, school-based PI is equally important (Park et al., 2017). Parent-teacher communication is one way that teachers can enhance student achievement as well as parent involvement. However, parents and teachers must have equal understanding of the technology used to communicate. Based on interviews with parents and principals at three elementary schools, Heath et. al (2015) found that two out of the three schools use information communication technologies (ICT) to the degree that they perceive themselves to. All three schools believed that they used ICT as much as possible to engage parents in their child's learning. Data also revealed that "... ICT alignment between parents and principals improves parent satisfaction with the principal and the school, whereas misalignment seems to have the opposite effect" (Heath et. al, 2015, 390). In order for

parents and teachers to have an equal understanding of the digital tools used to communicate, there must be frequent interactions between parents, guardians, and teachers.

Frequency, or the rate of communication initiated by teachers, is central to effective parent-teacher communication. A study of 17 parents revealed that over 60% of parents reopened emails containing information about school activities (DiJohn, 2017). The data shows that parents rely on concrete reminders and often revisit information. A second implication of the study revealed that frequency can be enhanced through the use of certain communication methods. Parent-teacher conferences, phone calls, and emails are traditional methods of communication. While these methods are reliable, they sometimes fail to meet the needs of parents who benefit from educational services. In response to this observation, one graduate student at California State University chose to explore technology's quick, accessible capability as a method of parent-teacher communication in the hopes of increasing parent involvement. DiJohn gathered data through parent interviews and questionnaires. After eight months of using SEESAW, a digital portfolio and communication application, parents reported an increase in viewing their child's learning and progress, as well as having meaningful conversations about school with their children.

Similarly, Michelle Fedler (2020) tracked the primary ways families chose to communicate. After analyzing parent communication via different technology platforms, phone calls, and newsletters, results indicated that parents in both high and low SES bands used mainly text messages (or applications like Remind, Class Dojo, etc.) and preferred this method over the other communication methods (Fedler, 2020). Such technology provides frequent, accessible parent-teacher communication. Wong-Villacres and his colleagues (2017) at the Georgia Institute of Technology conducted a similar study to determine the role of technology in

facilitating meaningful interactions between parents and teachers. The researchers shift from parental involvement to parent *engagement*, which is the result of meaningful interactions between parents and teachers. Two spaces, formal and informal, were identified as areas of interaction between parents and teachers. Formal spaces are teacher/school-led, while informal spaces are parent-led. Formal spaces provide parents with information about the school and their child's progress, while informal spaces connect parents with one another and the teacher. Informal spaces are a landmine for meaningful interactions, which can lead to successful parent-teacher communication. Tools like Facebook and Google Groups can turn informal spaces into formal spaces and vice versa. It is important for teachers to understand the two spaces and how tools can be used to create both environments. The researchers suggest the following guidelines for meaningful digital interactions between parents and teachers: support equitable informal spaces, provide an organized source of information, and increase access to relevant information. In sum, "technology needs to go beyond just facilitating a space for communication. It needs to enhance the inherent dynamic and social component of the communication" (Wong-Villacres et al, 2017, p. 82).

Based on these studies, technology has proven to be an accessible tool that can play a significant role in the frequency and effectiveness of parent-teacher communication. As educators strive to meet the needs of all students, communication between parents and teachers is essential. As technology continues to evolve, new methods of communication can be used to meet the needs parents and teachers and ultimately enhance the student's educational experience.

Parent and Teacher Accessibility to Technology

The importance of parent-teacher communication is supported by extensive research, and technology seems to be the quickest and easiest method in today's classroom. Ensuring this method of communication, however, can be difficult for multiple reasons. For the majority of parents who do have technology and reliable internet access, using apps like Remind, Zoom, and Class Dojo can foster effective communication. This communication can keep parents informed about students grades, behaviors, and class updates. If parents or teachers do not have access to technology, using it as a communication tool is ineffective. However, according to Natale and Lubniewski (2018), 92.6% of parents reported using the internet for at least an hour a day. Despite the high percentage of parent internet usage, socioeconomic status may affect Wi-Fi access. Parents who move frequently due to unemployment or shift work may not use technology as often as parents who have consistent Wi-Fi access. Researchers Katz and Gonzalez conducted a study in 2016 to determine the social disparity of low-income Latino families caused by limited access to technology. Data was gathered through qualitative interviews of 336 parents and children of Mexican heritage. The interviewers selected participants from three states, specifically three schools serving high-poverty, predominantly Mexican-origin students. Researchers learned that federal programs like Connect2Compete (C2C) do not provide quality internet access and do little to lessen the social disparity between low-income Latinos and middle/upper-income non-Latino families (Katz & Gonzalez, 2016) . School district efforts to comply with C2C offered services and tools, such as personal laptops for students, but did not provide enough training to parents. While most families already had technology (smartphones, computers, etc.) in their house, the cost of Wi-Fi greatly influenced their use. If parent-teacher

communication relies on school-issued technology, schools must ensure that all households have reliable internet access.

Digital communication between parents and teachers requires both parties to have equal access to Wi-Fi and technology tools. Teacher access to technology is significantly greater than parent access, simply because schools provide technology. School computers and laptops allow teachers to initiate parent contact from school, eliminating the Wi-Fi issue that parents may face. Teachers can also rely on school Wi-Fi to make phone calls and use mobile apps. This enables frequent teacher-initiated communication, but if parents do not have technology access at home, then teachers must find another way to communicate. This could be addressed through in-person conferences, community meetings, and parent groups.

Parent and Teacher Perspectives on Educational Technology

Another aspect of digital parent-teacher communication is parent and teacher perspectives on educational technology. It is important for teachers to establish relationships with parents and part of that includes understanding parents' perspectives on technology. If teachers wish to use technology as a communication tool, they must determine parents' comfort level and accessibility. In a study conducted by Vittrup and colleagues at the Texas Women's University, parents and children were interviewed in regard to parent perceptions of technology and children's knowledge and experience with technology (Vittrup et al., 2017). The researchers interviewed 101 parents and 39 children ranging from three to six years old. Based on parent questionnaires and child interviews, data revealed that technology usage is heavy for both parents and children. Half of the parents could not accurately identify their child's level of proficiency with technology, with 58% overestimating and 42% underestimating. In regard to parental attitudes toward technology and media, "33% of parents agreed that media exposure at a

young age (0–3 years) is important for early brain development, and 33% believed that children may fall behind other children academically if their use of technological tools is restricted in early childhood” (p. 49). Overall, the data revealed positive parent attitudes toward media and technology, including their children’s usage and proficiency. The study addressed this by stating

Parents may be assuming that children today are automatically more technologically savvy due to the high level of exposure, both in their own home and elsewhere. As mentioned previously, they may be overestimating their children’s abilities and judgments when it comes to these technologies, and that could be another reason why parents are more willing to give their children private access. (Vittrup et al., p. 51)

As research shows, a majority of parents are supportive of technology, especially used in conjunction with their children’s academics. Once teachers have determined that parents are open to using technology as a primary form of communication, teachers must inform parents about the specific tools they will use.

In her doctoral dissertation, graduate student Toinette Flowers (2015) conducted a cross-sectional correlational study to determine the connections between parent usage and understanding of mobile devices to parent-teacher communication. Flowers examined a number of factors, including (a) knowledge of using mobile devices, (b) general use of mobile devices, (c) purpose for using mobile devices, (d) perceived ease of using mobile devices, (e) perceived usefulness of mobile devices, (f) attitude toward using mobile devices, and (g) use of mobile devices to communicate with teachers. Participants included 73 parents of a Title 1 high school in a large Midwestern city. Based on responses from a Google Form survey, there were slight to moderate positive correlations found between five factors (a, c, d, e, f) and communication with their child’s teachers. Ultimately, “parents have a preference to use mobile technologies to

communicate with teachers; however, parents are underutilizing mobile technologies to communicate with teachers” (Flowers, 2015, p. 108). Flowers suggested that schools continue to tap into parent use of mobile devices but provide greater assistance with educational technology. Teachers should not assume that all parents have the same perspectives or know how to use certain apps. In order for parents to effectively use technology as a form of communication, teachers must provide extensive explanation and assistance.

Effectiveness of Technology as a Form of Parent and Teacher Communication

Before analyzing the benefits of digital parent-teacher correspondence, it is important to identify the communication barriers between parents and teachers. Using a survey of 514 teachers from 21 schools, Ozmen (2016) and his colleagues discovered four main barriers that teachers believe to impede parent-teacher communication. These barriers include personal, socio-cultural, accessibility, and field & status barriers. The researchers break down each barrier to more specific hindrances, such as language differences, SES, and level of education. The impact of these barriers is most notable during milestone transitions in a student’s life. In 2015, researchers used data from the Longitudinal Study of Australian Children to determine the differences in parent involvement and parent-teacher communication in preschool versus elementary school (Murray et al., 2015). The study used parent and teacher questionnaires as well as in-person interviews to collect data. Based on a sample of 2,010 children ages 3-7 and their parents and teachers, the data revealed a decrease in parent involvement. Data was categorized by parent reports, teacher reports, and child test results. The test results were used to show academic achievement and provide more insight as to how parent involvement can benefit students. Based on teacher and parent reports, the rate of communication between the two parties decreases between preschool and elementary school. One possible reason for this is personal

barriers between parents and teachers. As children get older, teachers may use different technology tools that adapt to the growing independence of the student. As a result, Ozmen suggests that “In order to perform teacher-parent communication efficiently and develop sustainable cooperation, a schoolwide mechanism should be built where preventive factors to efficient communication are identified and ways to overcome them are sought systematically” (Ozmen et al., 2016, p. 40).

In 2008, Rogers and Wright from the University of Alabama researched the effectiveness of different methods of parent-teacher communication. The study administered surveys to teachers and parents at three suburban middle schools in western Alabama. The schools included students from high, middle, and low SES families, allowing the results to be representative of all backgrounds. Teachers and parents were also informally interviewed to add to the data. Based on survey results, technology is an efficient way to inform parents of events and student progress. While technology can save time and reach a wider group of parents, the surveys also revealed that

Teachers are making use of the available technology to communicate with parents, yet according to the results of this study parents are not. ... More parents indicated using the computer to check the school website for homework information (50.0%) and important school dates (55.6%) than they did for e-mail (35.8%). Perhaps parents find using the school website easier, because checking the website does not require the parent to know teachers' e-mail addresses (p. 46-47)

Roger and Wright's study highlights the personal barriers to parent-teacher correspondence. While technology tools are becoming more accessible to parents, guardians, and teachers, personal preferences and other barriers (i.e., sociocultural and status) will result in varied

participation from parents and teachers. In their article on parent involvement, authors Morrison, Storey, and Zhang offer a solution to this fluctuation (Morrison et al, 2015). The authors cite famous research from Epstein, who provides a framework for six types of parent involvement: parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community. Based on Epstein's work, the authors developed a model of early childhood family-involvement. The model includes four components: staff and family communication, family-child collaborations, teacher-family relationships, and community connections (p. 34-35). Educators must reach out to parents in all four areas to make academic involvement accessible. From child care to employment opportunities, utilizing technology for community connections will increase parent-teacher communication and parent involvement in the classroom.

Additional research shows that using technology to communicate with parents has many benefits. Based on Bronfenbrenner's ecological theory, graduate students at Victoria University of Wellington analyzed the influence of ePortfolios on parent-teacher communication. Higgins and Sherrington (2017) conducted semi-structured interviews and focus group interviews with parents and teachers. Participants included 7 teachers and 29 parents, along with 13 parents who completed an online survey. Based on the data, two key themes emerged: the benefits and drawbacks of communication via ePortfolios and the types of communication evident via online comments (Higgins & Sherrington, 2017). All surveyed parents and teachers agreed that ePortfolios strengthened parent-teacher relationships to some extent. Parents noted that online commenting (on student portfolios) built relationships with teachers faster and "broke the ice." Analysis also revealed that ease of access and use of the ePortfolio had a significant impact on parent engagement. Having access to photos and videos increased parent engagement and communication. In regard to the types of communication that resulted from using ePortfolios,

data showed that more substantive dialogue occurred through online comments. Parent-teacher communication increased when comments were followed-up via email from the teacher. Comments and email that provided affirmation yielded the highest percentage of communication.

Researcher Mustafa Harun Can, a student at Janamaitri Multiple Campus College-Kathmandu, conducted a similar study in 2016 to investigate the effectiveness of mobile apps as a form of communication between parents and teachers. Can issued a survey to 573 parents of students at Meridian International School in Nepal. Using the website Survey Monkey, parents indicated their level of agreement (strongly disagree to strongly agree) to statements regarding the school app Meridian Connect. Results showed that parents were satisfied with the app and its accessibility, but did not agree with the statement “*Meridian Connect app establishes cooperation between school and parent*”. While 82% of parents strongly agreed to continue using the app, it is interesting that they did not find the app as a successful way to work with the school (Can, 2016). This response emphasizes the importance of working with parents to implement digital communication devices effectively.

A study at Ariel University in Israel revealed the importance of working with parents by investigating the effectiveness of parent-teacher conferences in the “technological era.” Researchers Nitza and Roman (2017) administered questionnaires to both parents and teachers to discover both parties’ perspectives. An additional question asked both parties to provide suggestions for increasing effectiveness. Based on the responses of 58 parents and 49 teachers, a positive correlation was found between computer-assisted communication, parent-teacher communication, and parent involvement. Along with this correlation, “parent involvement was not only found to be correlated with parent understanding and computer-assisted communication, rather it also mediates the effect of computer-assisted communication on parent understanding”

(Nitza & Roman, 2017). By using technology to communicate with parents, teachers can foster parent-student communication at home and practice technology use among parents. This can increase understanding of technology, student progress, and ultimately parental involvement.

Hall and Bierman (2015), researchers at Pennsylvania State University, conducted a literature review of 48 studies that focused on technology-assisted programs and interventions for parents of children less than five years old. The studies analyzed numerous types of technology, including web-based platforms, discussion forums, mobile devices, and video conferencing (Hall & Bierman, 2015, p. 21). The literature revealed that technology-based interventions produced successful results, specifically the ability to break down communication barriers. Webinars, discussion forums, and digital packets produced desired behavior and positive outcomes, such as improved student behavior and positive feedback from parents. Eva Patrikakou, a researcher for the scientific journal *Procedia*, addresses these benefits in her paper, "Relationships among parents, students, and teachers: The technology wild card." She states, "...fostering school-family partnerships assumes an even more important function than ever before, as it becomes an integral part of technology-based learning" (p. 2257). Parents can now be involved in their child's education digitally instead of physically by taking advantage of easier, quicker methods of communication. Student work can also be monitored and shared with parents quickly, allowing both parties to communicate frequently and easily.

In 2017, researchers at Columbia University sought to determine the effectiveness of technology on parent engagement on a large scale. Bergman and Chan (2017) conducted a field experiment including 22 middle and high schools in Kahawa, West Virginia. The technology used to communicate with parents was a learning management system that pushed student information to parents via text message. The system was synchronized with the district's student

information system to obtain information on absences, missing assignments, and low grades. Parents received, on average, 52 messages a month, which increased parent-school contact by 18%. Through text message, survey, gradebook, and administrative data, the researchers found that lower-performing students benefited the most from this intervention. While standardized test scores did not show significant improvement, grades and attendance did. Results indicated "... a need for improved parent-school communications. Parents also have inaccurate knowledge of their children's academics, particularly for those with below-average GPA students" (Bergman & Chan, 2017, p. 22). Parents often underestimated the number of missing assignments their students had, which changed when the intervention was implemented. In relation to my own research, these findings illustrate the importance of parent-school communication. Both teachers and parents can play a large role in improving student achievement and attendance by simply receiving weekly or bi-weekly reports.

Conclusion

Based on existing research concerning parent and teacher communication, accessibility to technology, and perspectives on educational technology, it can be concluded that technology is a beneficial form of parent-teacher communication. The importance of such communication is seen in student achievement and parental involvement. Parenting practices are critical to student academic success, but providing wide-spread assistance and interventions are difficult for a number of reasons. The main barriers to providing this type of assistance include lack of trained providers, engaging and retaining parents, and cost and delivery of intervention. These outcomes are the goals of parent-teacher communication, and technology can aid such communication. As digital resources continue to permeate the classroom and education field, it is imperative that teachers address the components of digital communication. These components include frequency

and effectiveness of parent-teacher communication, parent and teacher accessibility to technology, parent and teacher perspectives on educational technology, and the effectiveness of technology as a form of parent-teacher communication.

Chapter 3

Methodology

This chapter will review the methods and procedures of the research study. This qualitative study will gather data through interviews with parents and teachers. Once interviews have been conducted, the researcher will analyze and code responses according to four themes: parent beliefs, teacher beliefs, parent actions, and teacher actions. These themes will reveal parent and teacher beliefs about using technology as a form of communication, then will be compared to parent and teacher actions.

Subjects

This study will interview 4th grade teachers and parents from a local elementary school in Johnson City, Tennessee. General education teachers and parents will be the only participants interviewed. Prior to contacting potential subjects, the study will be approved by the Milligan University Institutional Review Board (IRB) and Johnson City school board. Once the study is approved by both institutions, all 4th grade parents and teachers will receive a paper copy of a letter¹ asking for participation in the study. This letter will provide an outline of the study, procedures, and informed consent.

Instrument

The subjects will be interviewed in person or via Zoom. This instrument will allow subjects to participate in a convenient location and time. Subjects will be asked a series of questions² about their communication with parents or teachers and how technology has impacted communication and parent involvement. Prior to the interview, the researcher will obtain consent

¹ See Appendix A

² See Appendix B

for the meeting to be recorded for data analysis. This will be documented in the letter of participation.

Procedures

Participation

The participation letter, consent form, and interview questions will be evaluated by a professor to eliminate bias and ambiguity. Over the course of a semester, the survey will be refined for clarity and efficiency. Once the interview has been evaluated, revised, and approved by Milligan University's IRB and the Johnson City school board, it will be administered to the subjects. The participation letter will be only be distributed to parents and teachers in the 4th grade. The letter will be sent home with students and given in person to teachers. If enough participation (at least three parents and three teachers) is gathered after one distribution, a second letter will not be sent. When parents and teachers respond to the participation letter, they will receive an email containing a secure link to a Google Form. This form will allow parents and teachers to choose a time and day to be interviewed. Interviews will take approximately two weeks, then data analysis will take an additional two weeks. In total, the study will last from the end of February to the end of March.

In the participation letter and consent form, the researcher will clearly state that the identity of the participant will remain anonymous. In the published study, no personally identifiable information (name, age, gender) will be included. In the interview, the only information that will be noted is the name of the subject, his/her contact information (in the event something changes or an interview needs to be rescheduled), and his/her position as a teacher or parent. This information will not be recorded, rather the researcher will label the consent form as Parent or Teacher, then label the consent form "A, B, C" and so on. In the published research,

participants will be referred to as “A, B, C” and so on to keep their identity anonymous. Parents will additionally be informed that participation (or lack thereof) will NOT affect their child’s grade.

Interview

On the day of the interview, the researcher will administer the consent form. If the interview is conducted via zoom, participants will receive the consent form via email and the researcher will read it aloud before starting the interview. The researcher will remind subjects of the steps that will be taken to keep their identity anonymous (refer to informed consent document). The researcher will also remind subjects that if they decide to withdrawal from the study, all personal information will be removed from the researcher’s notes. If the subject is a parent, their child’s grade will NOT be affected. After gaining consent to record audio or visual data, subjects will answer the interview questions. Each interview will take 15-30 minutes, depending on subjects’ responses. Subjects will not be exposed to psychological interventions that put their mental or physical safety at risk. At the conclusion of the interview, participants will be verbally informed of how their responses will be analyzed and distributed. Subjects will receive a letter of completion³ outlining how to find and read the published thesis. Subjects will receive an electronic and hard copy of the letter once the study is published.

Disposal of Information

After participants have been interviewed and the data has been analyzed and published, the audio or visual recordings of meetings will be kept for five years (in accordance with Milligan’s IRB). These recordings will be kept with the research mentor and will not be

³ See Appendix D

distributed to any other professor, student, or employee at Milligan University. Participants will be made aware of this in both the participation letter, consent form, and letter of completion.

Analysis

After collecting the data, the researcher will review audio/visual recordings. Responses will be compared and coded for the following themes: teacher beliefs (TBel), parent beliefs (PBel), teacher actions (TAct), and parent actions (PAct). According to Parsons and Brown (2002), coding is an effective method for analyzing qualitative data. Coding makes analysis easier and accurate by categorizing large amounts of data. Given the study's qualitative nature, using audio and/or visual recordings and coding will provide extensive analysis of data.

Use and Distribution of Data

This data is intended to help teachers and parents improve communication with one another. Teachers can use the data to adjust methods of communication for a technology-oriented environment, while parents can discover new ways to communicate with teachers and get involved in their child's academics. In the participation letter, subjects will be told how data will be used and distributed. All responses and personal information will be analyzed by the researcher only. After coding and analyzing the interviews, all recordings (audio/visual) will be delivered to the research mentor. The research mentor will keep the recordings in a password-safe file, where it will be stored for five years. The subjects' personal information will not appear in the written analysis to be published in Milligan's library. All subjects will be notified via email and physical documentation when the data is released and how to access the published thesis. All subjects will have the researcher, research professor, and Milligan University IRB's contact information should they have any questions.

Chapter 4

Analysis

The following chapter is an analysis of the data collected in this research study. The introduction outlines the purpose and goal of the study. The Data Collection section outlines the procedures concerning data collection, followed by an analysis of the data in the Results section. A summary of the results and implications concludes the chapter. The purpose of this study is to determine parent and teacher perceptions of digital communication, parent and teacher preferences, and how digital communication impacts parent involvement. The following research questions outline the purpose of the study and serve as a foundation for research:

5. Has technology significantly changed communication between parents and teachers?
6. How do parents/guardians and teachers prefer to communicate with each other?
7. What newer, more technological forms of communication between teachers and parents/guardians have been identified as the most effective, and what about them is ineffective?
8. Does using technology to communicate with parents/guardians affect their level of involvement?

The goal of this study is to provide teachers and parents a deeper understanding of technology as a form of communication and parent involvement. In order to develop this understanding, a qualitative approach to data collection was used. Instead of administering an anonymous survey, parents and teachers participated in an interview. While no personal information was collected nor recorded in this analysis, the perspectives, emotions, and opinions of parents and teachers were recorded and reflected in this study. By giving parents and teachers the opportunity to share

their experiences in a confidential setting, the resulting data will give both parties an authentic understanding of digital parent and teacher communication.

Data Collection

In order to obtain the qualitative data, interviews were conducted with parents/guardians and teachers from an elementary school in Johnson City, Tennessee. Teachers and parents/guardians from three 4th grade homerooms received Participation Letters. Teachers received these letters in person and students were sent home with the letter to give to parents or guardians. This letter outlined the study and asked for subjects to participate in an interview. After one day, all three homeroom teachers responded and gave consent to be interviewed. A total of fifty-six parents/guardians were asked to participate, and eight consented to be interviewed. After collecting the completed participation letter, all eight parents were contacted via email to select a time and date to be interviewed. The email contained a link to a Google Form that allowed parents/guardians to select a time and date that worked for them, as well as the Informed Consent document. Four parents responded to the email and selected a time and date to be interviewed via Zoom. Once the Google Form was completed, a confirmation email containing the Zoom link was sent to each parent.

When it was time for interviews to be conducted, the researcher reviewed the Informed Consent document with subjects before recording the interview. The researcher asked subjects if he/she had any questions before starting, then proceeded with the interview. Teacher interviews were conducted in person during recess. This allowed teachers to participate without sacrificing planning or lunch time. Parent interviews were conducted the following week via Zoom, allowing parents to meet in a comfortable, flexible setting. Throughout the interview, the researcher asked questions in a way that fostered conversation about the research topic. The

researcher asked questions in varied order depending on the subject's responses. As a result, no two interviews were identical. While there were many common themes in each response, every subject brought different experiences and perspectives to the interview. For this reason, the results provide insight to both sides of digital parent and teacher communication.

Study Results

After recording parent and teacher interviews, each recording was analyzed and coded for the following themes: parent beliefs (PBel), teacher beliefs (TBel), parent actions (PAct), and teacher actions (TAct). These four themes answer the research questions listed in the introduction of this chapter. This section of the chapter presents the collected data according to each research question.

Has technology significantly changed communication between parents and teachers?

Interview questions that corresponded to this research question addressed frequency of communication. Parents were asked how frequently they communicate with their child's teacher, while both parents and teachers were asked how COVID-19 has affected the frequency of communication. All four parents reported that they communicate with teachers primarily when a note is written in the school planner that students bring home every day. If there is a note from the teacher, then parents will use technology to contact the teacher (PAct). All four parents and all three teachers agreed that COVID-19 has increased the frequency of communication between both parties (PBel, TBel). Teachers noted that with so many daily changes, it is important to keep parents updated. The fastest way to do this, aside from the daily planner, is send a text or make a phone call (TAct). Parents and teachers alike remarked that COVID-19 has fostered deeper connections between parents and teachers. This is mainly because of the increased daily communication (PBel, TBel). One teacher remarked that "I am in more communication with

parents than ever before. This year has lent itself to more communication.” (Teacher B) One parent agreed that daily communication, whether it is through the planner or via technology, “gives a stamp of approval” (Parent A). Whether the message is positive or negative, frequent communication lets parents or guardians know that teachers are monitoring student progress and being transparent about it.

How do parents/guardian and teachers prefer to communicate with each other?

This question yielded two types of responses. For parents, the preferred method of communication depended on the reason for talking to teachers. All four parents preferred the daily panner for homework reminders and stamps. Students receive a stamp each day for attendance and ensuring that homework is written down. According to Parent C, this method “maintains accountability on the student’s part”. If a minor behavior issue occurs that day, it is written in the planner. Parent C felt that teachers should use technology (text or phone call), for behavior issues (PBel). Instead of allowing the child to see the note, Parent C believed that teachers should privately discuss the issue with a parent. Three parents preferred Zoom meetings for parent teacher conferences, citing flexibility as the main reason for this preference (PBel). Parent B stated, “it’s a lot easier to zoom on your work break than having to leave work to go to the school.” In this regard, technology was preferred by all parents to save time and produce quick responses from teachers (PBel).

When teachers were asked their preferred method of communication, responses were less varied. All three teachers mainly preferred the planner for daily communication, with Teacher B stating “If it’s something major, I’ll pick up the phone and let them (parents) know... there’s something in the planner.” This teacher uses an application, Google Voice, for parent communication, whereas the other two teachers use standard texting and phone calls (TAct).

Teacher B explained that the application allows texting and phone calls without using the teacher's personal cell phone number. The application does not need to be downloaded by parents, as the messages are received as a standard text or phone call from the teacher. This facilitates parent-teacher communication while maintaining the teacher's privacy. While privacy is an important factor in digital communication, Teacher A and C agreed that it is the quickest way to reach a majority of parents (TBel). Teacher C noted that "They (parents) know they can reach me at any time after school". Like the parents, all teachers believed that phone calls were necessary when contacting parents about behavior issues (TBel, PBel). Teacher B emphasized the importance of daily communication, stating "So many times, when the school calls, it's something bad. So, I try not to call just for bad things, but for good things, too." Phone calls home for behavior issues allow teachers to communicate quickly, yet more personally than through text message. However, phone calls should be used for more than behavior issues, as Teacher B pointed out. Based on this data, it can be concluded that communication method preference depends on the message being delivered.

What newer, more technological forms of communication between teachers and parents/guardians have been identified as the most effective, and what about them is ineffective?

This research question was addressed by inquiring about specific technology tools used by parents and teachers. As cited in the previous research question, text messages and phone calls are the major technological forms of communications used by teachers (TAct). Teacher A noted, "80% of my communication is through text... we were getting some response through emails in the beginning, but personally, I like to get it on my phone because it's always with you, so the text has been the quickest and most effective." Last year, the teachers used Blooms to communicate with parents. This app allowed teachers to send out reminders, create sign ups, and

message parents. With COVID-19 changing the way school started this year, the teachers did not set up Blooms (TAct). However, Teacher C stated that “what was happening before was that someone would be on SEESAW, someone would be on Blooms, and parents were complaining saying ‘I have four kids and I have four different apps.’ So, Blooms and SEESAW are the two apps we are supposed to use (in Johnson City).” Parent B experienced this, stating “There was one year I had three different apps between my four children. But then the next year, Johnson City Schools put out a thing saying ‘we’re only using Blooms’, which made it ten times easier.” For this reason, both parents and teachers agree that technology is effective when only a few platforms are used.

In regard to tools such as Zoom and Google Meet, parents and teachers had mixed feelings about the tools. The benefit most cited by parents and teachers was flexibility. Parent B stated “Even outside of COVID, it can be difficult to have that face to face communication with the teacher.” For this reason, all parents agreed that video conferencing tools like Zoom and Google Meet were helpful for arranging face-to-face meetings (PBel). Teacher A also noted that COVID-19 precautions restricted parents from entering the building frequently, so Zoom and phone calls were an effective alternative (TAct). While it is a time saver, Parent C noted that with some parent-teacher Zoom meetings, even a 30 minute call was hard to work around. For parents with more than one job or demanding careers, like healthcare, a Zoom call may be hard to arrange. This will continue to be a factor in parent teacher communication, however, since there will always be busy parents. In these circumstances, phone calls and text messages are the next best form of digital parent and teacher communication.

Does using technology to communicate with parents/guardians affect their level of involvement?

In teacher interviews, subjects were asked about the barriers to parent involvement and how digital communication has impacted parent involvement. The main response to this was an increase in parent communication (PAct). While COVID-19 has made it harder for parents to be present physically in the classroom, Teachers A and B noted that the increased communication as a result of COVID-19 has fostered stronger relationships between parents, teachers, and students. Teacher B noted,

It makes them (parents) feel more part of their child's education, and I think we, as teachers, even though there's barriers, we work hard to let the parents know that they are just as valuable as we are. With this whole COVID mess, when we were virtual learning at the beginning of the year, I did make a phone call, and spoke to each parent. I said... 'We'll help each other, but I need you. I need you to help me make this work, because I cannot do it without you.'

After making these phone calls and connecting with parents, the teacher believed that parents felt needed and thus more willing to be involved (TBel). Similarly, Parent D felt that frequent parent-teacher communication "...definitely helps start a conversation about the school day". Parents A and B also felt this way, noting that the daily planner is an easy way to stay informed about the day (PBel). Parents were more inclined to use technology for questions or concerns about their child, while teachers were more apt to use it for instant communication about any matter (TAct). Teacher C noted that technology also proves verbal communication, even if it is not in-person. When discussing parent involvement, the teacher stated, "It's (technology) helped support-wise because I've built this relationship already, even though it's 'we forgot this, or we forgot that, or we're quarantined', they felt comfortable... we've opened up and built that communication." When parents feel more comfortable, it is easier for teachers to relay both positive and negative

messages without fear of parents getting upset or not responding. This was something that all three teachers agreed was a benefit of digital communication on parent involvement (TBel).

Parents, on the other hand, felt differently. While they knew that they could contact teachers at any time, most felt that they did not need to initiate communication unless there was a negative issue concerning their child. All four parents stated that they did not initiate communication frequently, rather they would respond to any note, text, or phone call (PAct) from the teacher. Most parents said something like Parent D, “sometimes no news is good news” (PBel). Parent C felt that excessive parent-initiated communication reflected doubt about the teacher’s ability to manage the classroom (TBel). This parent stated, “I don’t really reach out because I feel like they have it covered.” All four parents stated that academic or behavioral issues were the main reason for them to initiate communication (PAct). This does not reflect a lack of involvement, but rather the motivation behind parent-initiated communication. Technology allows parents to inquire about their child’s progress and teachers to respond and initiate information about the student.

Summary

The purpose of this study is to provide teacher, parents, and guardians information about digital communication. The research questions set out to find answers concerning frequency of parent and teacher communication, preferences on methods of communication, effective tools, and how parent and teacher correspondence impacts parent involvement. The responses from three 4th grade teachers and four parents of 4th grade students provided insight for elementary educators, parents, and guardians. The results presented reflect parent and teacher perspectives concerning technology as a form of communication at the elementary level.

In regard to the impact of technology on parent and teacher communication, both parents and teachers agree that there has been a positive impact. Teachers cited increased communication with parents due to frequent updates throughout the week. Parents cited increased communication for this reason, as well as the ease of tools like Zoom and text messages. Both parents and teachers agreed that technology has facilitated increased correspondence, but teachers are more apt to initiate communication. Parents felt that a phone call or face-to-face meeting was necessary only for behavioral or academic issues (negative), while teachers felt the need to reach out to parents for both positive and negative issues. Although parents were not as likely to initiate communication, both parents and teachers cited response time as a benefit of using technology. Parents enjoyed the ability to ask a question and get an answer quickly and teachers enjoyed increased communication, whether it was minimal or substantial.

Concerning the effectiveness of tools like Zoom and Blooms, both parents and teachers agreed that such tools are effective ways to communicate with one another. While Zoom and Google Meets are used by the teachers, Blooms is not. Some parents did not mind this, while others stated that it was a good way to stay updated on their child's academics and classroom events. While COVID-19 has encouraged many people to turn to such tools, other tools like a daily planner are equally effective. All three teachers cited the benefit of using the daily planner as a method of communication with parents, which was daily communication. Stamping the planner each day acknowledges the student's attendance and lets parents and guardians know the student participated. The planner also records parent-teacher correspondence, which can be consulted during parent-teacher conferences or phone calls concerning the student. For parents, using the daily planner is an easy way to monitor their child's academics without making phone calls or texting the teacher. In this sense, technology is best-suited for situations that require

immediate attention. The responses from teachers and parents reveal the importance of not only collecting data, but interpreting and sharing the data. The following chapter interprets the study results and applies them to the elementary classroom and field of education.

Chapter 5

Discussion

Since the emergence of COVID-19, teachers and parents have relied on technology as a form of communication and academic instruction. With the abundance of applications and devices available for both parents and teachers, this form of communication is becoming the norm. Research has shown that one of the most important factors in academic success is parent and guardian involvement (Park, Stone, & Holloway, 2017). One way to foster this involvement is through parent, guardian, and teacher communication. The focus of this study is the effectiveness of digital parent, guardian, and teacher communication at the elementary level and what can be done to improve such communication.

Existing data has shown that parent involvement can increase academic success (Park et al., 2017) and foster positive relationships between parents and children (Deleon, 2018). Without parent and teacher communication, however, parent involvement will decrease and students will not have as many resources for academic success (Bergman & Chan, 2017; Deleon, 2018). Even when parents and teachers communicate, if they do not communicate effectively, parent involvement will decrease (Higgins and Cherrington, 2017). The goal of this research study is to determine how technology can be used as an effective communication device between parents, guardians, and teachers and increase parent involvement. The final chapter of this paper summarizes and interprets the data, acknowledges the limitations of the study, and includes recommendations for further research.

Summary of the Findings

In order to determine the effectiveness of technology as a communication device between parents, guardians, and teachers, interviews were conducted with parents and teachers. The

subjects were selected from three 4th grade homerooms at a local elementary school in Johnson City, Tennessee. Interview questions were based on the research questions that guided the study. These questions addressed both parent and teacher preferences for methods of communication, experiences with digital communication, and insights that will help future teachers when communication with parents and guardians. After conducting and recording the interviews, responses were analyzed and coded according to four themes: parent beliefs (PBel), parent actions (PAct), teacher beliefs (TBel), and teacher actions (TAct). These four themes address the beliefs and actions underlying parent and teacher preferences and actions when communicating throughout the school year.

Parent beliefs and teacher beliefs were similar in regard to the benefits of technology as a form of communication. Both parents and teachers believed that technology has made communication easier and allowed parents to become more involved. While parents did not cite involvement as a major benefit, all three teachers noted that they felt more connected to parents and communicated with them more than any other year. Due to COVID-19, communication between parents and teachers has become a daily necessity. Parent and teacher actions address this aspect of communication, and revealed differences among subjects. While all three teachers cited the benefit of instant, frequent communication with parents, the daily planner was another method of communication that teachers preferred. All four parents agreed that the planner is an effective way to check homework and receive updates from the teacher. While the planner is an effective tool for updates, all four parents preferred digital or physical communication for behavioral issues. All teachers agreed that this is a necessary step if a student's behavior is a concern, but parents believed that teachers should not use the planner as a method of communication behavioral concerns. For such concerns, parents preferred phone calls or text

messages. Teachers felt that communicating minor behavioral concerns via written note in the planner was an acceptable first step, while two parents felt that students should not have access to a note about their behavior. Instead, these parents believed that teachers should call or text parents about the behavior or concern.

In addition to the benefits of technology as a way to increase parent involvement, both parents and teachers cited the benefit of accessibility. For single parents or those who have multiple jobs, finishing time to meet with a teacher in-person can be difficult. All seven subjects agreed that technology has made communication easier in that parents no longer have to attend conferences in-person. With tools like Zoom and Google Meet, parents and teachers can discuss student progress in a flexible setting. For parents, this flexibility has fostered a confidence in their role as a helper and influencer in their child's growth. For teachers, this has resulted in increased parent involvement at home (helping with homework, asking about a behavior issue, or asking about an upcoming event). Aside from making it easier for parents and teachers to communicate, technology has allowed parents and teachers to become partners in student achievement.

Interpretation of the Findings

The responses from parents and teachers confirm and extend the existing research on parent, guardian, and teacher communication and parent involvement. Teacher and parent beliefs that technology allows parents to be more involved confirms Michelle Fedler's (2020) finding that technology is a successful tool for parent involvement. Both parties believed that technology is an effective communication tool, which confirms the existing research on digital communication between school and home (Katz & Gonzalez, 2016, Flowers, 2015). The teachers' belief that technology has increased parent involvement extends Morrison, Storey, and

Zhang's (2015) research on parent involvement strategies. In addition to methods like home visits, parent nights, and open houses, technology is a new aspect of parent involvement that results in deeper relationships between parents, teachers, and students. In this research study, all three teachers cited more frequent communication with parents. DiJohn's (2017) study on classroom applications that foster parent involvement reflects this belief and validates technology as an effective method of parent and teacher communication.

In addition to parent and teacher beliefs concerning digital communication, subjects' actions extended research on the use of such applications and tools. All seven subjects in this study rely on technology to communicate with one another. Aside from the daily planner that is sent home with students, parents preferred phone calls or text messages. Wong-Villacres and his colleagues (2017) conducted a study on the role of technology in parent and teacher interactions, which revealed similar data in regard to the popularity of phone calls, text messages, and emails as a preferred method of parent and teacher communication. Based on the new data collected in the current research study, parents prefer video-conferencing tools like Zoom and Google Meet to communicate with teachers. This response extends the existing research of Wong-Villacres (2015), DiJohn (2017), and Fedler (2020), meaning that technology has a prevalent and beneficial place in parent and teacher relationships. Overall, the responses from the seven subjects in this study confirm the importance of technology as facilitator of parent and teacher communication and parent involvement.

Limitations of the Study

While the study intended to focus on an elementary school setting, one of the biggest limitations to the study is the sample size and variety. Due to time constraints, only three teachers and four parents were interviewed. Only one grade (4th) was represented in the study,

therefore data cannot be generalized to the entire elementary school level. The beliefs of parents and teachers may differ from grade to grade, as well as the frequency and method of communication between parents, guardians, and teachers. Depending on the age of the student, the level of communication will vary. Younger students rely more on teacher communication with parents, as they may not understand concepts like parent-teacher conferences or after school activities. For older students, frequent parent and teacher communication is still necessary, but students can play a more active role. Without the opinions and experiences from different grade levels, the data in this study cannot be interpreted as a representation of all parent and teachers at the elementary level.

Another limitation to this study is the availability of technology among parents, guardians, and teachers. While most parents and teachers have cell phones, socioeconomic status may impact the frequency of communication between parents, guardians, and teachers. In schools with high percentages of students from high socioeconomic statuses, technology is accessible and can be relied on as a form of communication. Parents from lower socioeconomic backgrounds may not have reliable access to technology, resulting in less frequent communication via technology. For parents who work two jobs or do not have a partner to share responsibilities with, frequency of communication will be limited. The response from parents in this study reveal that technology can alleviate some of this by replacing physical meetings (Zoom), but the fact remains that a busy schedule will limit the availability of parents and can limit the frequency of communication with teachers.

Recommendations

In regard to the limitations outlined in the previous section, following studies on parent, guardian, and teacher communication should address different grade levels. With more time and

preparation, subjects could span from kindergarten to 12th grade. This would allow parents, guardians, and teachers of all ages and experiences to share their opinion on how technology impacts parent and teacher communication. As stated in the limitations, the age of students and resources available to teachers and parents will impact the frequency and methods of communication. Including a range of grade levels would increase the reliability of the data and provide a clearer picture of how technology can impact parent, guardian, and teacher communication and parent involvement.

Conclusion

The purpose of this study is to determine the effectiveness of technology as method of parent, guardian, and teacher communication and parent involvement. In order to determine the effectiveness and implications of this correspondence, teachers and parents were interviewed about their preferences and experiences. The subjects were given a canvas to showcase their personal experiences, beliefs, and actions that affect how they communicate. Parents and teachers alike cited the benefit of technology as a fast, reliable source of communication. Both parties stated that technology has alleviated stressors from COVID-19, such as limited physical contact and illness. Technology has also alleviated stressors faced by parents without a partner or working a demanding job(s). With tools like Zoom and Google Meet, technology has bridged the gap between these parents and teachers. The result is stronger relationships between teachers and parents, as well as increased parent involvement. Parent and teacher responses alike revealed that simple calls or texts make parents feel connected their child's learning, while staying up to date on school and classroom functions. For parents, this creates a stronger relationship with their child and their child's teacher. For teachers, this makes communication about negative events or behaviors much easier. Frequent communication builds a firm foundation that will not be broken

when negative behavior or concerns arise. For teachers, this is an important aspect of communication that makes relationships with parents much easier.

After collecting, analyzing, and interpreting the responses from both parents and teachers, the data presented offers both parties insight to digital communication between school and home. It has already been established that parent and teacher communication improve parent involvement (Natale & Lubniewski, 2017), but the methods of parent and teacher communication continue to change. As a result of COVID-19, digital communication between parents, guardians, and teachers has dramatically increased and forever changed communication. Despite the challenges of learning in the middle of a pandemic, the benefit is increased innovative communication. In response to this global obstacle, technology has made correspondence between parents and teachers not only possible, but increasingly effective. For educators, this translates to richer connections with parents and increased parent involvement. For parents, this translates to richer connections with teachers and their child(ren). Beyond academic success, the goal of parent, guardian, and teacher communication is creating a safe, productive environment for students to flourish. This study sheds light on just one way that parents and teachers can work together to make this goal a reality. Technology is the bridge between all parents and teachers that lead to richer, meaningful partnerships within the educational and residential community.

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Appendix A

Letter of Participation

Dear 4th Grade Teachers/Parents/Guardians,

My name is Lindsey Grow and I am a graduate student at Milligan University. As part of my degree requirements for the Masters of Education program, I am conducting a research study on digital parent-teacher communication. I am studying how parents and teachers prefer to communicate with one another, how technology impacts this communication, and how this communication results in great involvement in your student's academics. I wish to see how parent/guardian/teacher communication can be improved and ultimately help students succeed. This will give you an opportunity to share your personal experiences and suggestions to improve communication and meet you and your student's needs. To gather this information, I am asking for your participation in an interview. This can be in person or via Zoom. You will be asked 8-10 questions about your communication preferences and experiences. Interviews will take no longer than 40 minutes and may be shorter if needed. No physical risk will come to you, and your student's grade will NOT be affected by your participation. If you decide to participate in the study, no foreseeable risk will occur. For accurate analysis, I would like to record the interview audio. This audio will only be used for analysis post-interview. No other teacher or parent will have access to the recording, which will be kept safe under the supervision of the research mentor. In accordance with Milligan University's IRB, manuscripts from the interview must be kept for five years. These manuscripts will be kept with the research mentor and will NOT be distributed to any other professor, student, or employee at Milligan. The manuscripts will be securely stored in a password protected folder to ensure confidentiality. Once the study is

completed, you will be contacted via email and physical documentation, along with instructions for accessing the study. None of your personal information will be included in the published copy. All participants will be referred to as “Participant A, B, C, etc.” and no identifiable characteristics will be included (physical appearance, gender). All participation is voluntary, and refusal to participate will involve no penalty or loss of benefits. If you decide at any point to withdrawal from participating, NO consequences will be given and all information gathered up to that point will be deleted immediately. No record of your participation will be included if you decide to withdrawal at any point. No physical harm will come to you for the duration of the study, and your student’s grade will NOT be affected by your participation or decision to withdrawal.

Thank you in advance for your time and consideration,

Lindsey Grow, M.Ed student, Milligan University

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Dr. Mark Dula, Research mentor and professor, Milligan University

MEDula@milligan.edu

Milligan University Institutional Review Board (IRB)

IRB@milligan.edu

If you wish to participate, please complete the following and return to school (or submit electronically via Google Form):

____ I **do NOT** wish to participate in an interview

____ I **DO** wish to participate in an interviewed

____ I would like to be interviewed in person

____ I would like to be interviewed via Zoom (if so, provide an email address)

____ I give consent to record the audio interview

____ I do NOT give consent to record the audio interview

Please list a time and day you are available to be interviewed:

Please provide an email address to be notified of the date and time:

If you have any questions or concerns, please contact the following:

Lindsey Grow, M.Ed Student, Milligan University

ldgrow@my.milligan.edu

Dr. Mark Dula, Research mentor and professor, Milligan University

MEDula@milligan.edu

Milligan University Institutional Review Board (IRB)

IRB@milligan.edu

Appendix B

Interview Questions

Teacher Questions

- What is your preferred method of communication with parents?
- How has COVID-19 changed your methods of communication?
- How has COVID-19 affected parent involvement?
- Is there a method of communication that results in more parent involvement? If so, please explain.
- What are some barriers you have experienced with parent communication? How has this affected parent involvement?
- Do you think technology has helped or hindered communication with parents?
- Do you think digital communication with parents helps or hinders parent involvement?

Parent/Guardian Questions

- How frequently do you communicate with your child's teacher?
- Has COVID-19 affected the frequency of communication with your child's teacher?
- Has COVID-19 changed the way you communicate with teachers? If so, how?
- Do you rely on teacher-initiated communication to monitor your child's learning?
- Is there a teacher that was/is really good about communicating with you? What did he/she do?
- What is your preferred method of communication for teachers to use?
- How can teachers improve their communication with you?
- If a teacher frequently communicates with you regarding your child's grades, behavior, and school updates, does that make you more likely to volunteer at the school and/or assist your child at home?
- Do you think that frequent teacher communication enables you to help your child at home?

Appendix C

Informed Consent

Dear 4th Grade Teachers/Parents/Guardians,

Thank you for your time and interest in participating in the interview process. Your responses will be used to help both educators and guardians improve communication and participation in student academics. Thank you for sharing your voice to make these positive changes! As a participant in this study, you have the right to withdrawal at any point. If you choose to do so, NO consequences will be given and all information gathered up to that point will be deleted immediately. No record of your participation will be included if you decide to withdrawal at any point in time. For accurate analysis, I would like to record the interview audio. This audio will only be used for analysis post-interview. If you have selected to be interviewed via zoom, recording the meeting requires video recording as well. This video will be kept for analysis purposes ONLY. No other teacher or parent will have access to the recording, which will be kept safe under the supervision of the research mentor. In accordance with Milligan University's Institutional Review Board (IRB), transcripts from the interview must be kept for **five** years. These transcripts will be kept with the research mentor and will NOT be distributed to any other professor, student, or employee at Milligan. The transcripts will be securely stored in a password protected file to ensure confidentiality. If you have any questions, please contact myself, my research mentor, or Milligan University's Institutional Review Board via email:

Thank you once again for your time and consideration,

Lindsey Grow, M.Ed Student, Milligan University

ldgrow@my.milligan.edu

Dr. Mark Dula, Research mentor and professor, Milligan University

MEDula@milligan.edu

Milligan University Institutional Review Board (IRB)

IRB@milligan.edu

Appendix D

Letter of Completion

Dear Teachers/Parents/Guardians,

I am pleased to inform you that I have completed my research and published the results. You can read the complete thesis on Milligan University's online library via this link:

<https://mcstor.library.milligan.edu/handle/11558/841>

The recording of your interview is securely stored in a password-safe file under the supervision of the research mentor. No one will have access to the manuscripts besides the research mentor, who will permanently delete the information after five years (2026, in accordance with Milligan University's Institutional Review Board). If you have any questions or concerns, please contact myself, the research mentor, or Milligan University's Institutional Review Board (IRB).

Thank you for your time and participation,

Lindsey Grow, M.Ed Student, Milligan University

ldgrow@my.milligan.edu

Dr. Mark Dula, Research mentor and professor, Milligan University

MEDula@milligan.edu

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