

THE EFFECT OF DIRECTIVE DIGITAL SCHOOL-PARENT COMMUNICATION ON
STUDENT ACHIEVEMENT AND BEHAVIOR

By

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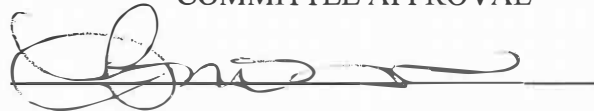
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Abstract

The 'Effect of Directive Digital School-Parent Communication on Student Achievement and Behavior' study sought to determine the effectiveness of an eight-week school to parent communication intervention intended to increase parental involvement in school work done at home. Six students' families participated in the study, in a one-group multiple time series design. Students were those with Specific Learning Disabilities in grades 10-12. This population was chosen because examination of findings may serve to start a discussion on the impacts of increased school to parent communication for struggling learners. The intervention consisted of eight school to parent electronic communications that encouraged parents to interact with their student in a specific way and included a grade report and teacher contact information. Data was gathered at pre, mid-, and post-intervention occasions on student achievement (grade point average) and behavior (behavior referrals to the office). Data were analyzed with independent-samples t-tests to determine the effectiveness of the intervention.

Chapter 1

Introduction

It is well documented that increased parental involvement has a positive effect on student achievement and behavior (Goodall, 2016). With evidence to support a need for increased parental involvement, schools are faced with the challenge of increasing parental involvement despite less time in their schedule to do so. Traditional face-to-face meetings at school-sponsored events such as parent-teacher conferences and parent-teacher association meetings are less feasible with current demands on parents' time. Less parental time available to dedicate to school coupled with an increased desire by parents to receive information and participate electronically is leading some schools and researchers to look to electronic communication in hopes of fostering increased parental involvement. This chapter will define concepts related to parental involvement and communication, discuss the importance of parental involvement and communication, provide an overview of the related research, present the purpose and methods, and outline the results and implications of this particular study.

Definitions: Parent, Parental Involvement, and Communication

Traditional definitions of the term parent often refer to a biological connection, but according to Glueck and Reschly (2014) a parent can be any family member or person who plays a meaningful role in the life of the student. The term parent may include the biological mother/father, adoptive mother/father, aunt, uncle, siblings, grandparents and other people who take the primary role of caregiving for the student. Often a parent is also a legal guardian, but for the purposes of this study parent will not be limited to legal guardians. For the purposes of this study, parent will be defined as any person who plays a meaningful role in the life of the student (Glueck & Reschly, 2014).

Wang and Sheikh-Khalil (2014) define parental involvement in education as, “parent’s interaction with schools and with their children to benefit their children’s education” (611). Parental involvement can be divided into three categories: school-based involvement, home-based involvement, and academic socialization. School-based involvement includes parents attending school events, going to parent-teacher conferences, and volunteering. Home-based involvement includes structure for homework time, rules for school work, and monitoring of work. Further, Gonida and Cortina (2014) note autonomy support, defined as the motivational development and skill acquisition, is a beneficial form of home-based involvement. Academic socialization includes the parent’s expectations for schoolwork and planning for future education (Wang & Sheikh-Khalil, 2014).

Communication can be defined in terms of verbal and non-verbal communication. This study defines communication in the verbal context. Communication as referred to in this study, includes in-person conversations, phone conversations, and written messages (including handwritten and electronic). Olmstead (2013) suggests the best form of communication between schools and parents allows for two-way communication as is possible with face to face, phone, and e-mail/text message communication. E-mails and text messages will be referred to as electronic communications. De Nobile (2015) defines directive communication as an interaction that intends to influence an individual or group to meet the expectations of their role. For the purpose of this study, directive communication will be defined as interaction (communication) that intends to influence the behavior of an individual or group.

Importance of Parental Involvement

Goodall (2016) cites the multitude of evidence supporting the positive effects of increased engagement of parents in the learning of their children. Compton (2016) suggests

one method school might utilize to increase parental involvement is increased school to parent communication. While it is hypothesized that increased teacher to parent communication causes increases in student achievement and engagement there is limited evidence to support a causal relationship (Kraft & Dougherty, 2013). Furthermore, Butler, Uline, and Notar (2008) posit that school-home discussions can be more effective when utilizing technology, but indicate a need for further research in this area. Additionally, while evidence that parental involvement decreases as students enter middle and high school, further research is needed to determine how to maintain positive parental involvement into the teenage years (Kraft & Dougherty, 2013; Kraft & Rogers, 2015; Bergman, 2012).

Overview of Parental Involvement and Communication Research

Porumbu and Necsoi (2013) report that the majority of literature reviewed demonstrated that parental involvement had positive effects on student achievement. Studies indicate that when parents focus on having expectations for school work (academic socialization), are more authoritative in their approach, focus on autonomy support during supervision, and communicate often with their child about school the best academic achievement results are accomplished (Castro et. al, 2015; Gonida & Cortina, 2014; Porumbu & Necsoi, 2013; Wang & Sheikh-Khalil, 2014). A limited number of studies have been able to provide evidence that, at the high school level, school to parent communication has a direct impact on student achievement as measured by factors such as homework completion, course completion, and a decrease in undesirable behaviors (Kraft & Dougherty, 2013; Kraft & Rogers, 2015; Bergman, 2012).

Studies have evaluated a variety of approaches to school to parent communication. Research on school-based programs shows that using multiple approaches to increasing parent

involvement, including home note programs, can increase student achievement (Rhode, Jenson, & Reavis, 2010; Butler, Uline, & Notar, 2008). Multiple studies have found a correlational relationship between increased electronic communication and student achievement (Salend, Duhaney, Anderson, & Gottschalk, 2004; Thompson, 2008; Tobolka, 2006). One study by Mathern (2009) indicated a significant relationship between parent use rates of an electronic grade book and GPA when subjects were broken into high and low SES groups.

Obstacles, such as socioeconomic status and historically poor race relations, may be encountered when attempting to increase student achievement through increased parental involvement (Stormont, Herman, Reinke, David, & Goel, 2013; Hughes & Kwok, 2007). Other barriers may include: parents/students not speaking English, having work commitments, not knowing how to help their child, not feeling welcomed at the school, accessing technology, parent's self-efficacy regarding technology, and teacher self-efficacy regarding technology (Olmstead, 2013). Finally, avoiding barriers to statistical significance may be best address by using an extended timeline of more than 7 weeks for data collection and an adequate sample size (Pakter & Chen, 2013). In order to contextualize the research question and prepare this study, a review of the existing literature surrounding the effect on student achievement of teacher to parent communication and parental involvement in their student's education was conducted and is reported in chapter 2.

Purpose and Methods

This action research study sought to investigate the impact increased informational and directive teacher to parent electronic communication has on student achievement and behavior. Specifically, what effect does increasing directive electronic parent communication have on student achievement (Grade Point Average or GPA) and behavior (behavior referrals to the

office)? Attention to frequency, type, and content of the message was reported to gain further insight into the impact. In addition, impacts on student behavior resulting from increased electronic communication were reported. This research provides support for improving student achievement through increased parent contact with an emphasis on efficient electronic communication.

The 6 participants of the study received 8 weekly emails which included a directive parenting strategy, student grade information, and teacher phone numbers. Baseline term GPA, cumulative GPA and behavior referral data was gathered in week 1 prior to implementation. Data was gathered 2 more times over the 8-week period at week 4 (mid-point) and week 8 (end-point). Upon conclusion, data was analyzed using two-tailed independent samples t-tests. Trend data was also established based on means.

Results and Implications

Results of independent samples T-tests showed no statistically significant findings, though data showed upward trends for term and cumulative GPA means during the second 4 weeks of the study. Results indicate a possible relationship between the intervention and the upward trend during the final 4 weeks. Given a larger sample size and more time, future researchers and practitioners may find electronic communication a useful and cost effective tool, though limitations provide barriers to the generalizability of results.

Additional information regarding the setting, participants, methods, intervention and data analysis can be found in chapter 3. Mean scores, T-test results and trend data of the study are unveiled in chapter 4, and a discussion of the results including connections to literature, interpretation of data, strengths and limitations, and implications is found in chapter 5.

Chapter 2

Literature Review

While parental involvement in education has been found to be beneficial, further studies report that specific styles of parental involvement can have a greater influence than others?. Studies indicate that when parents focus on having expectations for school work (academic socialization), are more authoritative in their approach, focus on autonomy support during supervision, and communicate often with their child about school, the best academic achievement results are achieved (Castro et. al, 2015; Gonida & Cortina, 2014; Porumbu & Necsoi, 2013; Wang & Sheikh-Khalil, 2014). A review of literature relevant to school communication and parental involvement revealed a necessity to discuss the need for parental involvement and potential obstacles schools face when attempting to influence parental involvement. Discussion of the specific positive impacts of parental involvement led to an analysis of effective strategies for influencing parental involvement. Research on school to parent communication as a vehicle for influencing parental involvement led to electronic communication being highlighted as a potentially useful method. Analysis of the comprehensive literature revealed research-based suggestions for influencing parental involvement through communication. Each of these concepts will be discussed in the subsequent sections.

Need for Parental Involvement

It is well documented that parental involvement in a student's educational experience has positive outcomes for the student's academic and emotional well-being. In a meta-analysis of 26 research articles on the relationship between parental involvement and children's school achievements, Porumbu and Necsoi (2013) report that the majority of literature reviewed demonstrated that parental involvement had positive effects on student achievement. While it is

noted that the impacts have been greater at the elementary level, multiple reports cite the importance of parental involvement at the middle and high school levels. Wardlow (N.D.) states that, "Parents and teachers are two of the most important contributors to a student's success" (p. 1). Wardlow highlights that parental engagement in student learning is associated with higher attendance rates, academic achievement, student readiness, interest in their work, and higher teacher satisfaction ratings. In an era where research points to the benefits of parental involvement and better parent-teacher communication, teacher to parent communications are now not only suggested but required by many school districts. Further research is necessary to optimize the process and determine the most effective communication strategies. Parents play a critical role in the academic and emotional development of students and the need for parental involvement has never been more apparent than in our current educational environment.

Parental involvement also has positive implications for student behavior. Shirvani (2007) examined the effect of teacher communication on freshman high school student homework assignment completion and their level of engagement and attitudes in the classroom. The study involved 52 freshmen high school students from four sections of an Algebra I course, taught by the same teacher, in a southeastern Texas city. Shirvani found that in addition to homework scores increasing, behavior improved. The comparison group had 21 teacher referrals of students to the principal office, while only 12 teacher referrals were recorded for students from the experimental group. Parental involvement therefore, has been shown to improve both academic and behavioral performance of students.

Research shows that parents play an important role in the lives of their student and increased parental involvement leads to increases in achievement (Porumbu & Necsoi, 2013; Wardlow, N.D.). Studies also show a connection between increased parental involvement and improve behavior in the school environment (Shrivani, 2007). Despite the evidence of benefits

surrounding increased parental involvement, schools face many obstacles when attempting to address parental involvement.

Obstacles to Influencing Parental Involvement

Obstacles, such as socioeconomic status and historically poor race relations, may be encountered when attempting to increase student achievement through increased parental involvement. Stormont, et. al (2013) conducted a study to explore patterns of parent involvement as perceived by teachers and then identified correlations to achievement. They found that parent involvement profiles can be identified and also that there is a relationship between race or SES and parent involvement. Students in the low contact/low comfort group were 2.85 times more likely to receive Free and Reduced Lunch than students in the low contact/high comfort group, indicating a connection between SES and parent-teacher relations.¹ Further, Hughes and Kwok (2007) conducted a study to determine if student background data related to teacher-student and teacher-parent relationship and communication. The study found that African American student and parent surveys reported lower teacher-student and teacher-parent relationships. Effective utilization of parent/teacher communication must take these population-based factors into consideration.

Pakter and Chen (2013) sought to discover if the use of text messaging communication between schools and parents could have a measurable effect on student achievement. The results showed that there was no statistically significant difference between groups before and after treatment. Although there was not a significant increase overall, there were some students who seemed to greatly benefit and text communication was reported to have reduced the workload on teachers. Though there was a positive trend emerging, the authors noted that seven weeks may

¹ Stormont, et. al (2013) define contact and comfort as teacher's and parent's reported perceptions of amount of home-school contact and personal feelings of comfort related to contacting the parent or school.

not have provided enough time to produce a significant result. This study also did not allow for two-way communication, which evidence shows may have increased chances of a significant effect (Pakter & Chen, 2013). The largest benefit from text messaging may be seen when coupled with a comprehensive plan for parent involvement.

During the same year, another study established similar barriers to increasing achievement through electronic communication. Olmstead (2013) found that impediments to increasing achievement may include not speaking English, having work commitments, not knowing how to help their child, not feeling welcomed at the school, accessing technology, parents self-efficacy regarding technology, and teacher self-efficacy regarding technology. Through surveys, the study was able to establish that parents and teachers both placed a high value on proactive parent involvement and that schools should initiate communication and allow for 2-way communication to foster growth. Proactive communication should be the goal. Parents wanted more email and text message communication. Online e-mail and text programs may provide opportunities for teachers to explore text communications with parents if they do not feel comfortable using their own phone. It was reported that offering online resources does not seem to be the most effective way to increase parental involvement due to its indirect nature, communication from schools needs to be directed and purposeful.

Barriers to increased achievement through increased parental involvement by means of electronic communication may include access to technology, socioeconomic status, ethnic and cultural differences, implementation time, a need for 2-way communication, development of parent training, and the obligation for schools to be proactive (Hughes & Kwok, 2007; Olmstead, 2013; Pakter & Chen, 2013; Stormont, et. al., 2013). Studies and programs that take these factors into account may increase their chances of success. Despite difficulties schools may face in attempts to influence parental involvement, the myriad of potential positive impacts outweigh the

obstacles.

Positive Impacts of Increased Parental Communication

It has been documented that parental involvement and school to parent communication at the primary school grades have a positive impact on school achievement (Goodall, 2016). Gonida and Cortina (2014) report that there is a less significant impact on achievement as students progress from 5th to 8th grade. They hypothesize that it may be due to a general decline in parental involvement and an increase in student desire for autonomy. In a review of studies indicating a connection between parent-teacher communication and student achievement, three reported a positive correlation between increased communication and student achievement (Kraft & Dougherty, 2013; Kraft & Rogers, 2015; Bergman, 2012).

Kraft and Dougherty (2013) conducted a study at the high school level to determine whether increased teacher to parent communication could be found to have a causal relationship with student motivation. In the experiment, 14 summer school classes were divided into two groups of seven classes and treatment groups received daily phone calls and letters/texts from teachers for five days straight, while control groups did not receive any teacher to parent initiated communication. The researchers claimed that a causal relationship exists between parent communication and engagement by students. Specifically, increased parent communication led to increased student engagement. Students in the control group dropped in their homework completion rate by 6.5 percentage points, while students in the treatment group dropped in homework completion rate by only 0.6 percentage points and also had lower rates of redirecting and higher rates of class participation.

As a follow up to the 2013 study, Kraft and Rogers (2015) tested for an association between the type of message parents receive at the high school level and student achievement. The intervention included three experimental groups. In the first, parents received a weekly

message indicating positive information about their child. In the second, parents received a weekly message about how the child could improve their performance. A third group acted as a control and received no messages. The researchers found that messages from the teacher to parents containing actionable information about a student had the greatest impact with an 8.8 percentage point increase in the likelihood of completing the course.

Bergman (2012) sought to test the hypothesis that more information provided to parents allows parents to achieve greater effort from their students. The study intervention involved increasing communication sent to parents in one experimental group at a weekly rate, while a control group received only typical school communication (quarterly report cards) at multiple Los Angeles Urban High Schools. The study measured student effort, achievement, parental investments and gathered administrative data on assignment completion, work habits, cooperation, attendance, and test scores. The author found a positive association between increased communication and achievement as evidenced by assignment completion increased by 25% and the likelihood of unsatisfactory work habits decreased.

Shute, Hansen, Underwood, and Razzouk (2011) conducted a meta-analysis to gather data on current research that might indicate trends in Parent Involvement (PI) and determine best practice guidelines for schools seeking to improve achievement through PI for middle and high school age students. Parent-child discussion about school frequently yielded the strongest positive relationship to student achievement. Future research into the productivity of PI methods should not ignore attempting to improve the rate parents talk with their children about school, developing parent's ability to set expectations and goals for their children, developing parents who have high expectations for their children's academic success, and developing authoritative parenting styles (Shute, Hansen, Underwood, & Razzouk, 2011).

Studies specific to the high school level indicated increased parent contact/involvement

increased assignment completion, decreased dropout rate, and improved work habits (Kraft & Dougherty, 2013; Kraft & Rogers, 2015; Bergman, 2012). While studies indicate positive correlations between increased parent contact/parent involvement and student achievement at the high school level, further studies are needed to strengthen the base of research.

Research-Based Strategies for Influencing Parental Involvement and Communication

Studies have evaluated a variety of approaches to school-to-parent communication and involvement. While the majority of studies focused on a specific approach, a few sought to use a global or holistic approach to parent communication. Reece, Staudt, and Ogle (2013) studied the effects of the “Neighboring Project Parent Empowerment and Volunteer Readiness Program.” The primary aim of this program was to help parents increase engagement in their children’s schooling and community. Participants had weekly meetings within walking distance of participants’ homes. The groups sought to find answers to questions regarding improving their community and schools. The project results indicated that participants were more involved with their schools and communities. The project also demonstrated improved parental competency regarding school work management and expectations. This parental skill was previously noted to be associated with improved student achievement. This type of global approach is recommended when implementing community-level interventions, but more research is needed regarding the success of classroom-based interventions.

While a global approach may be out of reach for most educators, home notes, phone calls, letters, emails, and teacher sites may provide accessible and effective strategies for increased teacher-parent communication. Rhode, Jenson, and Reavis (2010) detail a home note program as an effective way to increase homework completion and improve student behavior. Their home note program included periodically sending home notes to detail academic and behavioral progress that must be returned signed. The authors state, “A home note program can

be one of the most effective techniques for improving elementary and secondary students' motivation and classroom behavior" (p. 150). Butler, Uline, and Notar (2008) provided a review of the most effective approaches to increasing parental involvement. The study revealed that utilizing a variety of methods to contact parents provides the best gains in student achievement. The authors indicated that schools should be proactive in "explicitly inviting parents to be their partners," (p. 114) through student notebook checks, checklists, notes home, phone calls, and developing any means of two-way communication possible. The authors also noted that technology was an efficient tool for home-school communication including online homework help sites, teacher websites, and email.

While school-based and teacher-lead communication initiatives have had positive outcomes, there were mixed results in programs aimed at changing parent behavior within the home. Mathis and Bierman (2015) studied the Research-based Developmentally Informed (REDI) and Research-based Developmentally Informed - Parent REDI-P (REDI-P) programs in hopes of increasing reading ability as well as positive parent-student interactions revolving around school. This program sought to teach parents with a two-tiered approach during ten home visits. The results indicated limited enhancements in literacy skills for children, but did not change parent support for learning when compared to a control group. Similarly, Sayal et al., (2016) sought to determine the effectiveness of a parenting intervention program in reducing symptoms for students with Attention Deficit Hyperactivity Disorder (ADHD) at home and at school. The researchers found no significant effect of the intervention on symptoms of ADHD as reported on pre and post Connors Rating Scales. Finally, Mason et al., (2016) attempted to research the efficacy of the Common Sense Parenting Program (CSP) and CSP+ program. The CSP and CSP+ programs are 6 weekly 2-hour sessions between a trainer and parent, that train parents on adolescent social skills, adolescent problem behaviors, and parenting skills. The

hypothesis that CSP and CSP+ would be associated with improvements in parenting and family interaction, as well as youth school bonding and social skills, was proven false. While these studies highlight the limitations of brief parent-based interventions to attempt to change long-developed traits and behaviors, they also provide evidence that brief cost-effective parent programs may improve parent mental health, and could be worth further research for this purpose.

Recent studies raise questions about how it may be possible to improve parent involvement, and how schools might utilize that data to better involve parents to improve student achievement and behavior. Short-term home-based programs that attempt to change parent behavior have been shown to be ineffective at affecting student achievement or behavior. Interventions attempted at the community level have had limited success in improving parent self-efficacy as it related to helping their children with school work. Home note programs that invite students to be partners in education have also shown promise. As schools seek partnerships with parents, the inevitability of logistics must be considered. With varying work schedules and busy after-school programs for students, schools are faced with the challenge of connecting and communicating with parents whose schedules do not easily allow for face-to-face meeting time. Further research into school-based parent involvement programs, though limited, points to potential benefits surrounding the use of electronic communication when attempting to connect with parents.

Electronic Communication

There is detailed evidence that increasing parental communication through non-electronic means increases student achievement, but the base of evidence regarding electronic teacher-parent communication to increase student achievement is lacking (Kraft & Dougherty, 2013; Kraft & Rogers, 2015; Bergman, 2012). According to the Pew Research Center (2017),

“The vast majority of Americans – 95% – now own a cellphone of some kind. The share of Americans that own smartphones is now 77% (Mobile Ownership Over Time section, para. 1). In light of this information, Bergman and Chan (2017) found that automated electronic messages to parents regarding assignments, grades, and absences helped to reduce absences by 17% and course failures by 38%. In addition, a study by Souto-Manning (2010) suggested schools should provide means for parents to be involved without the need to come to the school. With a documented need for increased parental involvement, the advent of decreased ability to attend at-school events, increased use of cellphones, and preliminary evidence supporting electronic communication the further study of electronic communication and parental involvement is needed.

In an early study about the impact of electronic communication, Salend et al., (2004) sought to develop a system and guidelines for using the internet as an interactive tool for facilitating comprehensive two-way communication between teachers and parents regarding homework. The study implemented a Homework Assistance Center (HAC) online. It was implemented in two phases. Phase one included a welcome, guidelines, index, frequently asked questions (FAQ) section, homework policy, homework assistance policy, and teacher contact info. Parents were introduced to this platform and then told this would be the resource for assignment information. In phase two the researchers included homework assignments, rubrics, and curriculum standards. Finally, in phase three, they included online resources, a homework drop-box, online homework groups, an online survey and suggestion box. The authors claim that the use of online communication increased parent involvement and decreased the amount of missing homework.

Thompson (2008) completed a study intended to indicate the consequences of email communication between teachers and parents. The researcher found that the following

communication themes emerged from the interviews and review of data: Grades (57.18%), scheduling (13.78%), health issues (9.97%), behavior (7.04%), social issues (2.64%), and miscellaneous (9.38%). Through anecdotal survey responses, the researcher found that email communication helped some students improve their grades, effort, and behavior as reported by teacher and parent surveys. The author's claim supports email communication as a basis for improving student achievement. This finding extends the Salend, et.al.,(2004) findings to include electronic communication as a basis for improving student achievement.

Tobolka (2006), attempted to answer the question, "What influence does technology have on parent involvement and communication with their child's school?" (p. 24). The study intervention was to complete a program to teach parents how to utilize an online teacher site, then provided weekly email communications to parents, and measured homework completion. The study used parent surveys, student interviews, e-mails, checklists, and observations to record the effects of the intervention. The author found that parents found it convenient to contact through email, students liked it when their parents participated more in their homework, and there was a positive impact on student work habits.

Mathern (2009) measured school-home communication, achievement, and attendance to attempt to establish a correlation between these factors and use of a school-wide electronic grade book. Relationships were assessed and measured against a hypothesis that increasing rates of grade book use would result in increasing achievement (GPA) and attendance. His results indicated one significant relationship between grade book use rates and GPA when subjects were broken into high and low SES groups. The low SES group had a significant correlation to grade book use when looking at differences between quarter three and four ($r = .51$). Mathern's study indicated that electronic communication may provide an opening to help some of the students in most need of help.

Goodall (2016) introduced a set of principles for the introduction of technology into home-school communication. Research showed that as students get older their parents desire to help them, but lack the confidence to be active in their education. Goodall (2016) reported that technology had been shown to increase parental engagement at the high school ages.

Communication from schools to home should not aim to only inform, but also to attempt to support parents in the engagement of their children's schooling. Use of technology for communication should attempt to increase parental self-efficacy to better support learning and also start from a point of trust.

As these studies suggest, parental involvement can be increased through non-electronic and electronic means. Both forms of communication have been shown to increase parental involvement and student achievement. Posting online resources may be helpful, but does not appear to be the most fruitful way to increase achievement. Parents desire more email and text communication from schools and this type of communication may be most beneficial to poor performing, low SES students. Electronic communication may provide a gateway to help parents be more informed about their child's schooling and develop self-efficacy while reducing workloads related to communication for teachers.

Summary of Findings Related to Parental Involvement and Communication

A synthesis of previous sections of this paper indicates the following. Parental involvement can be defined as having three categories; school-based, home-based, and academic socialization. Research indicates that academic socialization and home-based help provide the largest gains in student achievement. While parental involvement provides the greatest gains at the elementary school level, research has also shown that parental involvement across all levels of education can be beneficial. Specifically, when parents act as an autonomy support for their children by setting rules and guidelines for school work at home and frequently discussing

school and future plans, they can have a significant impact on their children's achievement. The teacher's role in parent involvement includes keeping parents informed and up-to-date on school performance and possibly providing strategies for parents to work with their children. Ideally, teacher communication will indicate current student academic and behavioral status as well as suggestions for what parents can do to help their children improve. Consideration should be given to the population's ethnicity and SES. Teachers may, and should, utilize a variety of methods for parental contact including home notes, phone calls, letters, text messages, emails, and teacher websites.

To maximize the benefit of increased communication, parents need to feel a sense of self-efficacy in their ability to help their child. Parents need teachers to take the lead in communication. These communications should involve student performance information, promote positive parent interactions, increase parental self-efficacy, provide actionable ideas, and include information about the school. Communication programs that give parents strategies for working with their child by putting an emphasis on communication and behavior strategies, rather than academic skills, are likely to be most successful. Communication should be proactive in that they happen before there is a problem, and should allow for two-way communication. A continued communication timeframe of more than seven weeks is likely needed to see a significant effect. Care should be taken to ensure that parents feel like partners in the education process. Barriers to the communication may include language, time constraints, self-efficacy, comfort with the school, access to technology, in addition to parent and teacher technological self-efficacy.

This research seeks to determine a relationship between student achievement and behavior through increased parent contact with an emphasis on efficient electronic communication. Literature gaps indicate a need for further research into cost/time effective ways

schools can help to increase parental involvement. The literature on the use of electronic communication as a means for addressing student achievement is also lacking. This study seeks to answer the question, what effect does increasing directive electronic parent communication have on student achievement (Grade Point Average or GPA) and behavior (behavior referrals to the office)? Chapter 3 will discuss the research methodology that will be utilized to answer the research question and implement this intervention.

Chapter 3

Research Methodology

This study utilized a quantitative pre-experimental design to measure the effects of increased directive electronic communication to parents on student achievement and behavior. Parents and students received a consent form which was required for participation in the study (*See Appendices A-B for Consent Forms*). As previously discussed, electronic communication was defined as text messages, emails, and access to online student information. As discussed in the intervention section, the independent variable of electronic communication contained information regarding current student academic and behavioral status and directive steps parents could take to develop autonomy support and academic socialization in the household. Dependent variables of student achievement and behavior were GPA and documented behavioral referrals. This study was approved by an Institutional Review Board in December of 2017 (*See Appendix C for IRB Approval*). This chapter will provide a review of the methodology this study employed and include the intervention, setting, participants, methodology, data collection, analysis procedures, and limitations of the study.

Intervention

While there is an abundance of evidence supporting the impact of increased teacher to parent communication on student achievement, there is limited evidence on the selective impact of electronic communication between the teacher and the parent on student achievement (Kraft & Douherty, 2013). This action research study sought to investigate the effect of increased teacher to parent electronic communication on student achievement and behavior. Specifically, it investigated the impact of an increase of directive electronic communication from schools to parents on student achievement and behavior.

This study endeavored to maximize effectiveness and minimize barriers via an 8-week intervention in the hopes of increasing student achievement and behavior through parental involvement and communication. To address the question, an intervention consisting of 8 weekly emails and/or text messages with information regarding current academic status, teacher contact information, and a short suggestion for building academic socialization and autonomy support in the home was developed (*Intervention communications available in Appendix D-S*). Per research discussed earlier, all communication provided parents with the contact information of their student's teachers and a suggestion to contact the student's teacher if they have questions. In hopes of realizing the benefits of increased parental involvement, directive suggestions for building self-efficacy came from Jenson, Rhode, and Hepworth-Neville (2010) *The Tough Kid Parent Book*. Information from these books was used to provide research-based information and suggestions for parents working with students struggling in school. Messages were developed with a plan to help parents develop academic socialization in the home, and boost their self-efficacy as it relates to helping their student with school work at home. Parents were offered a hard copy of any intervention tools upon request. The offer for a hard copy was made through electronic communication. According to Kraft and Rogers (2015) communication programs that give parents strategies for working with their child by putting an emphasis on communication and behavior strategies, rather than academic skills, are likely to be most successful. Intervention communication was proactive and allowed for two-way communication by providing a direct link to teacher contact information at the end of each communication and 2-way communication with the researcher.

Setting

This study was conducted within a medium-sized community in the United States. According to the district website, the high school was established in the early 1900s and is comprised of the city and surrounding areas. With a 2017 enrollment of just over 5,000, the district has one primary high school, 2 junior high schools, 6 elementary schools, an early childhood center, and an alternative education charter high school. Demographics of the student population during the 2015-16 school year included: 0.47% American Indian, 9.5% Asian, 2.83% Black, 11.84% Hispanic, 70.73% White, .08% Pacific Islander, and 4.55% Two or More. Roughly 41% of students during the 2015-16 school year qualified for free or reduced meals. The district can be described as a Midwestern school district with students living in mostly urban or suburban settings.

Participants

Participants consisted of parents or guardians of students and students identified as receiving special education services for a Specific Learning Disability at the primary high school. The school provides services for 77 students with learning disabilities. Of the population 32 are female and 45 are male. Out of 77 recruited participants, 14 show interest by returning the recruitment letter. 6 participants were willing to sign the informed consent form, resulting in a sample size of 6. Students who receive special education services for Specific Learning Disability receive specialized instruction directed to support deficits in reading, writing, math, or a combination of these three areas.

To gauge interest in the study, all 77 families were mailed or emailed a recruitment letter explaining the basic elements of the study and a request for a return communication indicating a preference for participation (*See Appendix T for Recruitment Letter*). From the

group of possible participants, a sample size of 6 was acquired through recruitment letters and emails sent to all students with Specific Learning Disabilities in the school. Following selection, participants were randomly assigned a number. All of the 6 participants received the intervention.

Methodology

A one-group multiple time series pre-experimental design was utilized to determine if increasing directive electronic communication with parents had an impact on student achievement and behavior. Specifically, did an increase in electronic parent communication have an effect on student GPA and behavior referrals to the office? Participants were consenting individuals ($n \approx 6$) and received a weekly directive electronic communication. A time period of 8 weeks allowed for data collection on weeks 1, 4, and 8. Messages were sent utilizing the Remind application for the school to parent communication. The Remind application is an internet browser-based and phone app that allows one party (the teacher) to contact multiple other parties (the parents) via SMS text message or email. Messages sent from the Remind program allow for attachments and 2-way communication. Remind allowed for text and email messages to be sent which included attached student academic standing (grade reports) and teacher contact information.

A pre-experimental design was utilized for this study due to the limited availability of generalizable populations and the inability to control for extraneous factors that might cause GPA and behaviors to fluctuate. While pre-experimental designs are limited in ability to make causal inferences, the design provides the most robust and valid research allowable under the circumstances (Behi & Nolan, 1996). School-based human research requires work within a limited time frame and the researcher must consider ethics to ensure fair treatment of

individuals receiving interventions. To ensure ethical practice, the pre-experimental design allows for all participants to receive the potentially beneficial intervention within the limited timeframe of the study, while providing a potential measure of statistical significance.

Data Collection

Data utilized was compiled from the district databases Infinite Campus (IC) and eduCLIMBER. IC is the district data tool for managing attendance, grades and student academic records and eduCLIMBER is the district data tool for managing behavior records and high stakes testing results. IC and eduCLIMBER reports provided up to date data on academic achievement and major behavioral infractions. Academic achievement data (GPA) was obtained from IC reports. District teachers enter grade data directly into IC allowing for instantaneous GPA data retrieval. Behavioral data (office referrals) was obtained from both IC and eduCLIMBER. IC and eduCLIMBER allow teachers two methods of documenting behavior referrals. Per district policy, teachers are to report all behavior referrals in IC or eduCLIMBER immediately after referring. The collection was completed 3 times during the study. Week 1 was collected prior to initiating the intervention to obtain a baseline, during week 4 data were collected at the mid-point, and week 8 was collected after the intervention commenced.

Data was stored in Microsoft Excel, to be analyzed later. Data was coded as it was collected by the student researcher. The student researcher assigned an anonymous number to each participant, which was associated with stored data. Code sheets were destroyed by the student researcher at the end of the study. Due to the confidential nature of student achievement and behavioral data, all stored data was confidential and reports were made by aggregate rather than individual scores. Data analysis was completed after the destruction of

the coding information, therefore the student researcher did not know who the students being analyzed were.

Analysis

The independent-samples two-tailed t-test was utilized to compare descriptive statistics on GPA and behavior referrals. The data collected were analyzed using the computer-assisted calculation software to establish relationships between (1) increased directive school to parent communication and GPA and (2) increased directive school to parent communication and behavior. A confidence level of .05 was established prior to running the statistics. The means of term GPA, cumulative GPA and behavior were generated to summarize pre and post-intervention trends. A multiple time series data collection method paired with the independent-samples t-test provided multiple effect scores over the 8-week period allowing for trend data to be established. The multiple data sets (3 times total) were utilized to determine any initial versus sustained changes in achievement or behavior over the 8-week period. The results of this study are discussed in chapter 4.

Chapter 4

Results

Messages including student progress, teacher phone numbers, and a directive parent strategy were sent to parents of students with learning disabilities weekly for 8 weeks. All of the 6 participants who were included in this study were identified as students in grades 10-12 with Specific Learning Disabilities. The researcher gathered comparative data in an attempt to answer the research question; what effect does increasing directive electronic parent communication have on student achievement (Grade Point Average or GPA) and behavior (behavior referrals to the office)?

Data was collected on student term GPA, cumulative GPA, and behavioral referrals on the dates of 2/11/18, 3/11/18, and 4/8/18. Term GPA refers to the student's grade point average for a term, in this case, 3rd quarter of the 2017-2018 school year. Cumulative GPA refers to the ongoing, culminating GPA reflective of all of the grade points received while the student was in grades 9-12. All GPA information was collected from the district online data bank called Infinite Campus, while all behavioral data was collected from a different district data bank called eduCLIMBER. Data was collected from the end of the 3rd week in the 3rd quarter until the last week of the 3rd quarter. All consenting participants remained in the study for the duration. Data means were calculated for student term GPA, cumulative GPA and behavioral referrals on each data collection date. Raw scores and means are shown in Table 1.

Table 1
*Student Raw Data and
 Mean Scores*

Student Code	Term			Cum.			Term		
	GPA	GPA	Behavior	GPA	GPA	Behavior	GPA	GPA	Behavior
	2/11/18	2/11/18	2/11/18	3/11/18	3/11/18	3/11/18	4/8/18	4/8/18	4/8/18
001	0.50	1.32	0	0.50	1.32	0	1.17	1.46	0
002	2.00	2.03	0	1.50	1.94	0	1.50	1.94	0
010	3.50	3.14	0	2.50	3.00	0	3.40	3.13	0
012	0.60	1.59	0	0.80	1.65	0	1.67	1.75	0
020	3.20	3.36	0	3.60	3.43	0	3.40	3.40	0
023	1.50	2.39	0	2.25	2.48	0	2.40	2.50	0
Mean	1.88	2.30	0	1.86	2.30	0	2.26	2.36	0

Note. Cum. GPA refers to Cumulative GPA

The researcher determined that, as a group, means for term and cumulative GPA increased from initial to final data collection. While means from the 2/11/18 data collection to the 3/11/18 data collection remained relatively unchanged, the means from the 3/11/18 and 4/8/18 data collection increased. Individually, 4 out of the 6 participants saw an increase in term and cumulative GPA from start to finish. Overall, the mean term GPA increased by 20% while the cumulative GPA increased by 2%. There was no change in behavior recorded during the study.

Independent samples t-tests were conducted to compare means of term GPA, cumulative GPA, and behavior referrals in a single group (n=6) multiple time series data set to determine significance of intervention outcomes. A baseline was established prior to intervention implementation, then data was collected at the mid and endpoint of the study. Multiple time

series t-test outcomes are shown in Table 2 and pre-post intervention t-test scores are shown in Table 3. Figures 1 and 2 show trends in the mean scores of term GPA, cumulative GPA, and behavior referrals.

Table 2

Results of t-tests and Descriptive Statistics Term GPA, Cumulative GPA, and Behavior for multiple time series

Outcome	Data Collection Date						95% CI for Mean Difference	t	df	p
	2/11/18			3/11/18						
	M	SD	n	M	SD	n				
Term GPA	1.88	1.27	6	1.85	1.16	6	-1.5346, 1.5946	.036	5	.972
Cumulative GPA	2.30	0.82	6	2.30	0.81	6	-1.048, 1.048	-.003	5	.998
Behavior	0	0	6	0	0	6	-0.0, 0.00	0	5	1

Outcome	3/11/18			4/8/18			95% CI for Mean Difference	t	df	p
	M	SD	n	M	SD	n				
	Term GPA	1.85	1.16	6	2.26	.974				
Cumulative GPA	2.30	0.81	6	2.36	.781	6	-0.9635, 1.0835	-.124	5	.904
Behavior	0	0	6	0	0	6	-0.0, 0.00	0	5	1

Note. * $p < .05$

Independent-samples t-tests were conducted to compare term GPA means for the dates 2/11/18, 3/11/18, and 4/8/18. There was no significant difference in the term GPA means for 2/11/18 (M=1.88, SD=1.27) and 3/11/18 (M=1.85, SD=1.16); $t(6)=.036$, $p = 0.972$. There was also no significant difference in the term GPA means for 3/11/18 (M=1.85, SD=1.16) and 4/8/18 (M=2.26, SD=.974); $t(6)= -.644$, $p=.534$. These results suggest that there was little to no change in term GPA within the first 4 weeks of the study. It also suggests that there was some change in term GPA, though not statistically significant, within the last 4 weeks of the study.

Independent-samples t-tests were also conducted to compare cumulative GPA means for the dates 2/11/18, 3/11/18, and 4/8/18. There was no significant difference in the cumulative GPA means for 2/11/18 ($M=2.30$, $SD=.82$) and 3/11/18 ($M=2.30$, $SD=.81$); $t(6)=-.003$, $p = 0.997$. There was also no significant difference in the cumulative GPA means for 3/11/18 ($M=2.30$, $SD=.81$) and 4/8/18 ($M=2.36$, $SD=.781$); $t(6)= -.124$, $p=.904$. These results suggest that there was little to no change in term and cumulative GPA during the study.

Behavioral data was also compared using an independent samples t-test. There was no change in behavior during the study resulting in no significant change as reported by t-test scores. There was no significant difference for behavior referral means for 2/11/18 ($M=0$, $SD=0$) and 3/11/18 ($M=0$, $SD=0$); $t(6)=0$, $p = 1$. There was also no significant difference in behavior referral means for 3/11/18 ($M=0$, $SD=0$) and 4/8/18 ($M=0$, $SD=0$); $t(6)=0$, $p = 1$.

Table 3

Results of t-tests and Descriptive Statistics for overall Term GPA, Cumulative GPA, and Behavior

Outcome	Data Collection Date						95% CI for Mean Difference	t	df	p
	2/11/18			4/8/18						
	M	SD	n	M	SD	n				
Term GPA	1.88	1.27	6	2.26	.974	6	-1.0759, 1.8359	.570	5	.581
Cumulative GPA	2.30	0.82	6	2.36	.781	6	-0.9701, 1.0901	.127	5	.902
Behavior	0	0	6	0	0	6	-0.0, 0.00	0	5	1

Note. * $p < .05$

Finally, data was compared from baseline collection to the end of the study using an independent samples t-test. There was no significant difference in the term GPA means for 2/11/18 ($M=1.88$, $SD=1.27$) and 4/8/18 ($M=2.36$, $SD=.781$); $t(6)=.570$, $p = 0.581$. There was also no significant difference in the cumulative GPA means for 2/11/18 ($M=1.88$, $SD=1.27$)

and 4/8/18 ($M=2.36$, $SD=.781$); $t(6)=.127$, $p=.902$. These results suggest there was some change in term GPA, though not significant, between the start and end of the study. It also suggests that there was little to no change in cumulative GPA from the start to the end of the study. Behavior did not change during the study.

Data trends are presented in Figures 1 and 2.

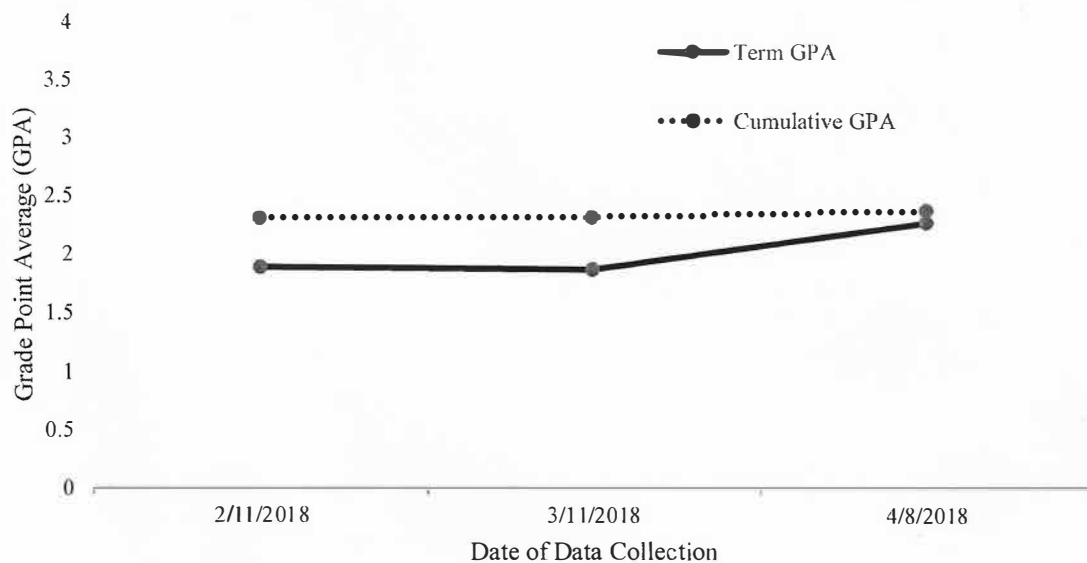


Figure 1. Term and Cumulative GPA trends.

As shown in Figure 1, term and cumulative GPA remained relatively unchanged during the first 4 weeks of the study. Cumulative GPA showed a slight upward trend in the last 4 weeks of the study. Term GPA showed a definite upward trend during the last 4 weeks of the study. This data suggests that the intervention may have been related to the positive trend during the last 4 weeks of the study for both cumulative and term GPA. Further discussion of trend data can be found in chapter 5.

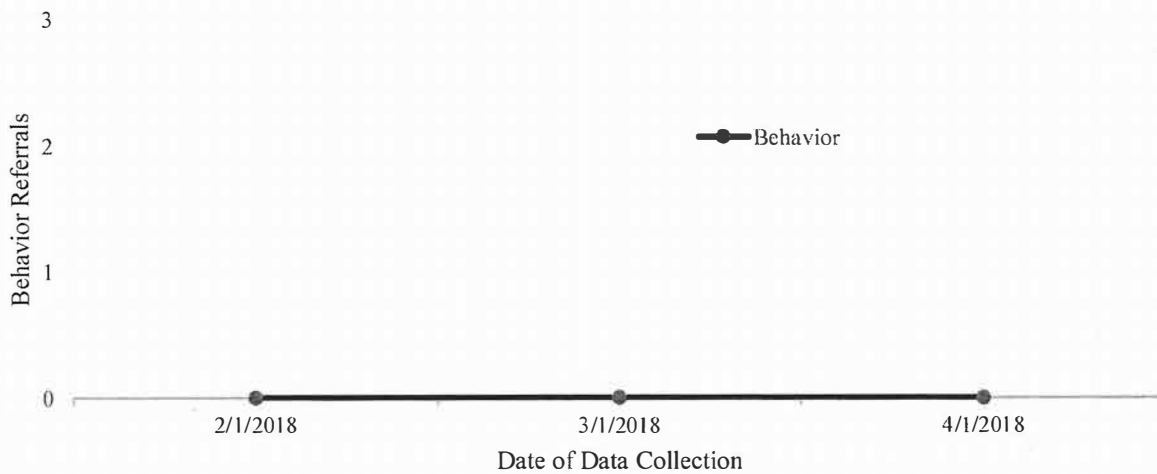


Figure 2. Behavior Trends.

Behavior data did not change during the study resulting in no change in trend. This data suggests that participants' behavior may not have been impacted by the intervention, but it also suggests that participants may be individuals without a history of behavioral struggle.

Behavioral data will be discussed further in chapter 5.

Overall, there were no significant differences in means for term GPA, cumulative GPA, or behavior referrals as reported by independent samples t-tests. Trends in the data suggest that there was little to no change related to the intervention during the first 4 weeks of the study, but there was some non-statistically significant change in term GPA and cumulative GPA during the last 4 weeks of the study and from baseline to final data collection. The discussion of the results and trends will be divulged in the next chapter.

Chapter 5

Discussion

Goodall (2016) cites a well-documented body of resources that support the finding that increased parental involvement has a positive effect on student achievement and behavior. In an attempt to answer the question: What effect does increasing directive electronic parent communication have on student achievement (Grade Point Average or GPA) and behavior (behavior referrals to the office), the researcher offered families of students with Specific Learning Disabilities the opportunity to receive 8 weekly emails that included a grade report, teacher contact info, and directive message that attempted to help parents to become more involved in their student's schooling. Using a multiple time series data collection approach (pre, mid and post), results indicated little to no change during the first 4 weeks of the study and the start of possible positive trends during the final 4 weeks of the study. According to independent samples t-tests, none of the findings were statistically significant. This chapter will provide connections to literature, an interpretation of the results, study strengths and limitations, and implications of findings.

Connections to Literature

The present study provides multiple consistencies with recent literature on parental involvement, electronic communication, and its relationship to student achievement and behavior. Research shows that parents play an important role in the lives of their student (Porumbu & Necsoi, 2013; Wardlow, N.D.). Studies also show a connection between increased parental involvement and improved behavior in the school environment (Shrivani, 2007). Though current results would be improved with measurements of parental involvement, the current study shows consistencies with these findings. An increase in both term and cumulative

GPA along with all participants receiving 0 behavior referrals over the 8-week period, though limited in significance, provide evidence that increased parental involvement may positively impact student achievement and behavior. Other studies specific to the high school level indicated increased parent contact/involvement increased assignment completion, decreased dropout rate, and improved work habits (Kraft & Dougherty, 2013; Kraft & Rogers, 2015; Bergman, 2012). Though not specific enough to address assignment completion, decreased dropout rate, and improved work habits, trends reported by the current study indicating upward growth in GPA provide a high school age connection to the findings of Kraft and Dougherty (2013), Kraft and Rogers (2015), and Bergman (2012). The use of Remind to send participants electronic communications via text message and/or email support the Salend, et. al., (2004) findings that electronic communication may provide a basis for improving student achievement. Possibly most significant to the current data set, the upward trend in GPA during the final 4 weeks of the study support Pakter and Chen's (2013) finding that seven weeks likely did not provide adequate time to establish significance. Limitations to the current researcher's time frame did not allow for more than 8-weeks of data collection, but present study data trends support the need for further research on the topic with extended timeframes and adequate population sampling.

Though the present data provided many consistencies with the literature, there was one inconsistency. One notable inconsistency regards Olmstead's (2013) finding that greatest impacts on student achievement and behavior must allow for 2-way communication between the teacher and parents. During the present study's 8 week data collection period only one parent opted to engage in 2-way communication with the researcher regarding the information being presented electronically. Further, the communication did not seek to verify grade data or question intervention implementation, rather it communicated completion of intervention tasks.

This is inconsistent with Olmstead's (2013) finding that lack of 2-way communication would provide a barrier to the success of the communication.

Interpreting Results

In attempting to answer the question, does increased parent involvement lead to positive outcomes in the areas of academic achievement and behavior the researcher found that, with a sample size of 6, there were no statistically significant gains. Reports of behavior referrals did not change during the study. Behavior, term GPA, and cumulative GPA all remained relatively stable during the first 4 weeks of the study. The data supported an increase in GPA, especially term GPA, during the final 4 weeks of the study. Cumulative GPA increased slightly during the last 4 weeks with a gain of .06 grade points, while the mean of term GPA increased from 1.85 to 2.26 mean grade points during the final 4 weeks of the study.

Findings regarding term GPA provided the most interesting basis for conjecture in regards to the intervention. As will be discussed in the limitation section, a small sample size of 6 participants likely is related to the lack of statistical significance found regarding positive changes in mean term GPA. Though not statistically significant, one possible explanation for the gains found in term GPA during the final 4 weeks is that the intervention required more time to produce any measurable effect on GPA. A timeline of 8 weeks, as noted by Pakter and Chen (2013), was likely not enough time to determine if the upward trend found in the last 4-weeks for term GPA would continue. Parental self-efficacy with the intervention tools, student changes in behavior, and teachers updating grade records all require time, and 8 weeks may not have provided the time necessary to determine if more permanent changes have occurred.

Behavioral data remained consistent during the entire study, with all participants receiving 0 behavior referrals from start to finish. While this result may have a connection to

increased parental involvement as a result of the intervention, it is likely that this pattern is due to the lack of a history of behavioral issues for the student sample. It is also possible that, in the current school, behavioral incidences occurred but were not documented as an office referral. To increase the value of behavioral data in future studies, changing the behavior measurement mechanism to a classroom-based measure and/or seeking a more varied population of students, possibly students with a history of behavioral issues, would provide a more valuable basis for speculation.

Strengths and Limitations

The current study had a number of strengths. One strength of the study includes the support of the literature on the topic. Findings, though not statistically significant, were very consistent with the literature on parent involvement, electronic communication, and its impact on student achievement and behavior. Another strength of the study is the ability for future researchers to replicate. The use of a free universal electronic communication tool (Remind) and the inclusion of all strategy communications (see Appendices D-S), allows for future researchers or practitioners to easily replicate or expand the study. A third strength of the study includes the data collection. All data was accurately collected during the 3rd quarter of 2017-18 school year allowing for almost 1 full quarter of a school year worth of data to be collected. Data was collected from Infinite Campus and eduCLIMBER, the district data storehouses, which provided another level of confidence regarding data accuracy.

Out of all the study limitations, most notable is the small sample size. Six students with learning disabilities in one high school, in grades 10-12, make generalizing the results unreasonable. The small sample size also may have contributed to a lack of significant t-test results despite a notable increase in mean term GPA from the mid to endpoint of the study.

Further, the timeframe of 8 weeks did not provide enough time to discover if upward trends will continue. Parents were asked to receive, interpret, and implement interventions in an 8-week timeframe with little training (other than written word), and all of this was done during the 3rd quarter of the school year which is not regarded as the most productive time of year for students. The limited time frame, coupled with the study ending at the end of a school quarter, begs the researcher to question whether the increase in term GPA was a result of the intervention or the result of a common trend of grade movement at the end of a grading period. The researcher cannot account for any extraneous impacts on GPA that may have occurred outside of the intervention. A final limitation of this study is the use of parents, who likely had little to no training in child development or education, as the main agents of change. There is no way to assure the intervention was attempted with fidelity or even attempted at all. Due to the nature of the research question, limitations regarding time constraints, self-efficacy, comfort with the school, access to technology, and technological self-efficacy provided barriers to the success of the intervention.

There were also limitations to the pre-experimental research design, including threats to internal validity. The inability to control extraneous variables due to the human-based nature of the study limited the ability to make inferences. As this is the nature of social science school-based research, care was taken to report the limits posed by poor internal validity. Generalizability was limited due to the narrow focus on one segment of the special education population with a small sample size at one high school. However, the focus on this particular group of students with Specific Learning Disabilities may serve to start a discussion on the impacts of increased school to parent communication for struggling learners.

Regardless of the limitations of the present study, it should be noted that upward trends

in student achievement were beginning to emerge. These findings support the need for further research on this topic.

Implications of Findings

Though the findings of the current study must be considered with caution due to the limitations presented in the previous chapter, the study provides consistencies with current literature and a basis for future research into the topic. The results of this study suggest that directive electronic communication may provide some benefit to student academic achievement. Practitioners may find benefit in utilizing mass electronic communication systems to influence student academic and behavioral outcomes. Today, most schools have the ability to mass message the parents of an entire school or the district. The current intervention may provide a path to improving student outcomes that require little to no cost in regards to money and time. Further benefit might be found if the study was brought to all students, rather than only students with Specific Learning Disabilities, as well as expanded to grades other than 10-12. There may be additional benefit to employing the study intervention with students with other disability labels, specifically Emotional Behavioral Disabilities, to see if behavioral findings might be supported.

Future research should focus on increasing the sample size and intervention timeline. Sample sizes could potentially be increased to include all students within a school. It is common practice for districts to send out mass communications to parents via email and text message, this practice could be targeted on increasing parental involvement on a school-wide basis. Ideally, future studies would be conducted during a complete school year with quarterly data collection to detect trends across time. Conducting a study within 1 quarter of a school year only provides a snapshot of student achievement, where a 4-quarter time frame could

provide more rigorous evidence. Ability to identify correlational or causal relationships could also be improved with the addition of a control group. For ethical consideration, care should be taken to ensure all participants receive the benefit of the intervention in all control group situations.

Future research might also address some of the socioeconomic and cultural concerns brought up by Olmstead (2013), which the current study did not address, as well as questions which require qualitative data collection: Does socioeconomic and cultural difference produce a difference in achievement outcomes when implementing electronically based parental involvement research? Would an increased sample size and time frame lead to significant results for a replicated study? Do text and email messages actually increase parental involvement? Does increased parental involvement lead to improvement in more specific measures such as classroom redirection rate, assignment completion and improved work habits? No matter the direction future research takes with this topic, increasing parental involvement in a student's education provides an opportunity for significant academic and behavioral growth in the school setting.

References

- Behi, R., & Nolan, M. (1996). Research. Quasi-experimental research designs. *British Journal Of Nursing*, 5(17), 1079-1081.
- Bergman, P. (2012). *Parent-child information frictions and human capital investment: evidence from a field experiment*. Retrieved from:
http://www.tc.columbia.edu/faculty/bergman/PBergman_10.4.12.pdf
- Butler, E., Uline, C., & Notar, C. (2008). The most effective approaches to increasing parental involvement. *Asian Social Science*. 4(5), 114-123.
- Castro, M., Expósito-Casas, E., López-Martín, E., Lizasoain, L., Navarro-Asencio, E., & Gaviria, J. L. (2015). Parental involvement on student academic achievement: A meta-analysis. *Educational Research Review*, 14, 33-46. doi:10.1016/j.edurev.2015.01.002
- Compton, A. N. (2016). *Strategies for increasing parental involvement for elementary school students* (Unpublished doctoral dissertation). Walden University, Minneapolis, MN.
Retrieved from
<http://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=3748&context=dissertations>
- De Nobile, J. (2015). The directive communication of Australian primary school principals. *International Journal of Leadership in Education*, 18(2), 239-258. DOI:
10.1080/13603124.2014.932437
- Glueck, C., & Reschly, A. (2014). Examining congruence within school-family partnerships
Definition, importance, and current measurement approaches. *Psychology in the Schools*, 51(3), 296-315. doi:10.1002/pits.21745
- Goodall, J. (2016). Technology and school-home communication. *International Journal of Pedagogies & Learning*, 11(2), 118-131.

- Gonida, E. N., & Cortina, K. S. (2014). Parental involvement in homework: relations with parent and student achievement-related motivational beliefs and achievement. *The British Journal Of Educational Psychology*, 84(Pt 3), 376-396. doi:10.1111/bjep.12039
- Hughes, J., & Kwok, O. (2007). Influence of student-teacher and parent-teacher relationships on lower achieving readers' engagement and achievement in the primary grades. *Journal of Educational Psychology*, 99(1), 39-51. doi:10.1037/0022-0663.99.1.39
- Jenson, W. R., Rhode, G., & Neville, M. H. (2010). *The tough kid parent book: Practical solutions to tough childhood problems*. Eugene, OR: Pacific Northwest Publishing.
- Kraft, M. A., & Dougherty, S. M. (2013). The Effect of Teacher–Family Communication on Student Engagement: Evidence From a Randomized Field Experiment. *Journal of Research on Educational Effectiveness*, 6(3), 199-222. doi:10.1080/19345747.2012.743636
- Kraft, M. A., & Rogers, T. (2015). The underutilized potential of teacher-to-parent communication: Evidence from a field experiment. *Economics Of Education Review*, 4749-63. doi:10.1016/j.econedurev.2015.04.001
- Mason, W. A., Fleming, C. B., Gross, T. J., Thompson, R. W., Parra, G. R., Haggerty, K. P., & Snyder, J. J. (2016). Randomized trial of parent training to prevent adolescent problem behaviors during the high school transition. *Journal of Family Psychology*, 30(8), 944-954. doi:10.1037/fam0000204
- Mathern, M. S. (2009). *The relationship of electronic-grade book access to student achievement, student attendance, and parent-teacher communication* (Doctoral dissertation). Seton Hall University Dissertations and Theses (ETDs). Retrieved from <http://scholarship.shu.edu/cgi/viewcontent.cgi?article=2697&context=dissertations>

- Mathis, E. T., & Bierman, K. L. (2015). Effects of parent and child pre-intervention characteristics of child skill acquisition during a school readiness intervention. *Early Childhood Research Quarterly*, 33, 87-97. doi:10.1016/j.ecresq.2015.07.002
- Olmstead, C. (2013). Using technology to increase parent involvement in schools. *Tech Trends*, 57(6), 28-37.
- Pakter, A., & Chen, L. (2013). The daily text: Increasing parental involvement in education with mobile text messaging. *Journal of Educational Technology Systems*, 41(4), 353-367.
- Pew Research Center. (2017). *Mobile fact sheet*. Washington, DC. Retrieved from <http://www.pewinternet.org/fact-sheet/mobile/>
- Porumbu, D. & Necsoi, D. (2013). The relationship between parental involvement/attitude and children's school achievements. *Procedia - Social and Behavioral Sciences*, 76 (706-710).
- Reece, C. A., Staudt, M., & Ogle, A. (2013). Lessons learned from a neighborhood-based collaboration to increase parent engagement. *School Community Journal*, 23(2), 207-225.
- Rhode, G., Jenson, W. R., Reavis, H. K. (2010). *The tough kid book*. Eugene, Oregon: Pacific Northwest Publishing.
- Salend, S. J., Duhaney, D., Anderson, D. J., & Gottschalk, C. (2004). Using the internet to improve homework communication and completion. *Teaching Exceptional Children*, 36(3), 64-73.
- Sayal, K., Taylor, J. A., Valentine, A., Guo, B., Sampson, C. J., Sellman, E., Daley, D. (2016). Effectiveness and cost-effectiveness of a brief school-based group programme for parents of children at risk of ADHD: A cluster randomized controlled trial. *Child: Care, Health and Development*, 42(4), 521-533. doi:10.1111/cch.12349

- Shirvani, H. (2007). Effects of teacher communication on parents' attitudes and their children's behaviors at schools. *Education*, 128(1), 34-47.
- Shute, V., Hansen, E., Underwood, J., & Razzouk, R. (2011). A review of the relationship between parental involvement and secondary school students' academic achievement. *Education Research International*, 2011, 10.
- Souto-Manning, M. (2010). Family involvement: Challenges to consider, strengths to build on. *Young Children*, 65(2), 82-88. Retrieved from <http://www.naeyc.org/yc/>
- Stormont, M., Herman, K. C., Reinke, W. M., David, K. B., & Goel, N. (2013). Latent profile analysis of teacher perceptions of parent contact and comfort. *PsycEXTRA Dataset*, 28(3), 195-205. doi:10.1037/e586622013-001
- Thompson, B. (2008). Characteristics of parent-teacher e-mail communication. *Communication Education*, 57(2), 201-223. doi:10.1080/03634520701852050
- Tobolka, D. (2006). Connecting teachers and parents through the internet. *Tech Directions*. (24-26).
- Wang, M., & Sheikh-Khalil, S. (2014). Does parental involvement matter for student achievement and mental health in high school?. *Child Development*, 85(2), 610-625. doi:10.1111/cdev.12153
- Wardlow, L. (N.D.) The positive results of communication: Teaching in a digital age. Retrieved from: http://researchnetwork.pearson.com/wp-content/uploads/DigitalAge_ParentCommunication_121113.pdf.

Appendix A

Student – Informed Assent

[Redacted]

Student Assent Form

November 12, 2017

Dear Student,

Mr. Van De Ven, enrolled in the M.S.E. in Special Education Program at the [Redacted] [Redacted] is conducting a study to determine the effectiveness of electronic school to parent communication. The study will consist of electronic communications, sent to parents through the Remind online communication program. Any data collected will be shared anonymously after the research, so no one will know you were a participant. We would appreciate your participation in this project because it will help us determine the most effective communication methods for high school-aged students.

We do not anticipate that your allowing us to use any of your data will present any medical or social risk to you or your family. As a participant in this study there may be minimal risk involved in completing home interventions which have a potential to cause tension between household members. This risk is not believed to be higher than what may be expected on a daily basis in the home. No additional testing will be conducted outside of that which is normally done. Information gathered in this study may benefit you and other students through the development of new communication strategies that foster positive gains in academic achievement and behavior.

The information we gather will remain confidential. We will not release the information we gather in any way that would identify you, your parents, or your school. You have the right to withdraw from the study at any time and to request that none of your data be used.

Once the study is completed we will be glad to share the results with you. In the meantime, if you have any questions, please contact:

[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]

If you have any complaints about your treatment as a participant in this study, please call or write:

[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]




Although the Chairperson may ask your name, all complaints are kept confidential.

I have received an explanation of the electronic communication student achievement study, and I understand that I will be a participant in a study allowing school information to be sent to my family electronically. I understand how my data will be used and agree to participate. I understand that participation in this study is strictly voluntary.

(participant signature)

(date)

It is anticipated that this research project will be approved by the  Institutional Review Board for Protection of Human participants for a four-year period from December 2017.

Appendix B
Parent – Informed Consent

[REDACTED]
Parent/Guardian Informed Consent

November 12, 2017

Dear Parent/Guardian,

Student Adam Van De Ven, enrolled in the M.S.E. in Special Education Program at the [REDACTED] is conducting a study to determine the effectiveness of electronic school to parent communication. This study will measure academic achievement and behavioral data results for students with Specific Learning Disabilities. The intervention will consist of 8 electronic communications, sent to parents through the Remind online communication program, intended to increase parental involvement in their student’s schooling. Adam Van De Ven would appreciate your willingness to participate in the study by allowing him to send electronic communication and allowing him to access your child’s grade and behavioral data. The data will be shared anonymously. The researcher will attach a code to the data so that no one outside of the school will know your student is included in the study. We would appreciate your participation in this project because it will help us determine the most effective communication methods for high school-aged students.

We do not anticipate that your allowing us to use any of this data will present any medical or social risk to you or your child. As a participant in this study there may be minimal risk involved in completing home interventions which have a potential to cause tension between household members. This risk is not believed to be higher than what may be expected on a daily basis in the home. No additional testing or communication with your student will be conducted outside of that which is normally done. Information gathered in this study may benefit your child and other children through the development of new communication strategies that foster positive gains in academic achievement and behavior.

The information we gather will remain confidential. We will not release the information we gather in any way that would identify you, your school, or your child. You have the right to withdraw from the study at any time and to request that none of your child’s data be used.

Once the study is completed we will be glad to share the results with you. In the meantime, if you have any questions, please contact:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

If you have any complaints about your treatment as a participant in this study, please call or write:

[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Although the Chairperson may ask your name, all complaints are kept confidential.

I have received an explanation of the electronic communication student achievement study, and I understand that I will receive 8 electronic communications regarding my student's school achievement and behavior to be used at my discretion. I understand how my and my student's data will be used and agree to participate. I understand that participation in this study is strictly voluntary.

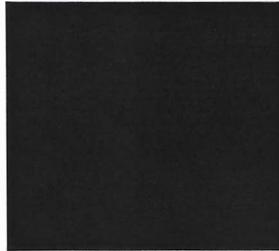
(participant signature)

(date)

It is anticipated that this research project will be approved by [REDACTED] [REDACTED] Institutional Review Board for Protection of Human participants for a four-year period from December 2017.

Appendix C

IRB Approval Form



Date: 12/20/2017

To: [Redacted]

From: [Redacted]

Protocol Title: The Effect of Directive Digital School-Parent Communication on Student Achievement and Behavior

Protocol Number: [Redacted]

Protocol Approval Date: 12/20/2017

Protocol Expiration Date: 12/19/2018

On behalf of the [Redacted] Institutional Review Board for Protection of Human Participants (IRB), I am pleased to inform you that your application has been approved. This approval provides permission to begin the human subject activities as outlined in the IRB-approved protocol and supporting documents.

Your research has been approved by the Full Board as NON-EXEMPT: Expedited Category 9

Non-exempt research is subject to compliance with federal regulations and [Redacted] policies regarding the use of human subjects as described in the IRB Application materials. In conducting research under this protocol, the researcher agrees to:

- Submit a Modification Request Form and secure approval before making any changes to the protocol.
- Submit a Continuing Review Form prior to the expiration date to extend the protocol beyond the end date.
- Report to the IRB any unanticipated risks the research subjects or deviations from the procedures as described in the protocol as soon as they are identified.
- Complete an IRB Closure Form when the research is completed.
- All IRB forms may be found on the Sponsored Programs and Faculty Development website, completed, and sent electronically to [Redacted]
- As required by [Redacted] record retention policy, please retain all research data and signed consent forms for seven years after completion of the study.

Please contact me if you have any questions [Redacted]

Sincerely,

[Redacted signature line]

[Redacted signature]

cc: [Redacted]

[Redacted footer line]

Appendix D

Electronic Communication Week 1

Dear Parent/Guardian,

Thank you for your willingness to participate in the communication initiative pilot study.

Research shows that **when parents are involved in their student's schooling, students perform better in school**. Specifically, research has shown that as schools and parents communicate regularly student academic scores increase and behavior improves.

As a first step to becoming more involved, the school recommends that all parents sign up for an Infinite Campus parent portal account (see attachment/handout: Infinite Campus Instructions for Parents). This account can be utilized to frequently check school information regarding your student. If you need a new parent portal Activation Key please email Barb [REDACTED] at [REDACTED]

Also attached is a current grade report for your student and attached staff directory. For the high school online staff directory click [here](#). Please take a moment to discuss the grade report with your student. It is recommended practice to offer praise for positive marks before questioning problems. Please feel free to contact any of his/her teachers with questions or concerns.

Research used for this and future messages comes from Jenson, Rhode, and Neville (2010) *The Tough Kid Book*. Thank you for taking the time to help your student maximize their success at school. ²

Attachments:

1. Infinite Campus Parent Portal Instructions (Appendix I)
2. Confidential grade report (Sample attached – Appendix J)
3. High School Quick Connect Phone Directory (Phone directory includes teacher name and number)

Appendix E

Electronic Communication Week 2

Dear Parent/Guardian,

How often does your student talk to you about school? Research shows that when, **on a daily basis, parents ask students about their day at school, use Infinite Campus/communicate with teachers to verify what students tell them, and help them create a plan for the homework they need to accomplish** student performance improves. (see attachment: How Parents Help Students Succeed)

Thank you for taking the time to help your student maximize their success at school. Please utilize the staff directory or attached quick connect phone directory to contact your student's teachers with questions/concerns.³

³ Attachments

1. How Parents Help Students Succeed (Appendix K)
2. Confidential grade report (Sample attached – Appendix J)
3. High School Quick Connect Phone Directory (Phone directory includes teacher name and number)

Appendix F

Electronic Communication Week 3

Dear Parent/Guardian,

Would your student rather spend time on their phone or with video games rather than doing homework? Research shows that **parents who allow students access to their privileges (phone, video games, TV, friends, etc.) on a daily basis after they have achieved their daily homework goals** help their student to achieve at higher levels. As you review the attached grade report with your student, please take a moment to sign a homework contract with them. (see attachment/handout: Student-Parent Homework Contract). If the homework contract attached does not match the needs of your student and yourself, please feel free to modify or make your own.

Thank you for taking the time to help your student maximize their success at school. Please utilize the staff directory or attached quick connect phone directory to contact your student's teachers with questions/concerns.⁴

⁴ Attachments

1. Student-Parent Homework Contract (Appendix L)
2. Confidential grade report (Sample attached – Appendix J)
3. High School Quick Connect Phone Directory (Phone directory includes teacher name and number)

Appendix G

Electronic Communication Week 4

Dear Parent/Guardian,

Do you ever feel like conversations about school with your student are a bummer? Research shows that **having positive conversations with your student about school** has a positive impact on their school performance. As you review the grade report this week, attempt to praise your student for the work they have completed so far in this process. According to Jenson, Rhode, and Hepworth-Neville (2010) consistent praise for positive behavior is one of the single most important factors in developing compliance. Attempt to incorporate multiple positive phrases in your weekly discussion about school and you will be likely to see a positive change in your student.

Here is a list of positive things you can say when your student follows through:

1. I'm so proud of you!	6. Spectacular!
2. Cool when you do that!	7. You are on your way!
3. Fantastic job!	8. How smart of you to do it that way!
4. Well done!	9. What fine work!
5. That's the best!	10. You really are amazing!

Thank you for taking the time to help your student maximize their success at school. Please utilize the staff directory or attached quick connect phone directory to contact your student's teachers with questions/concerns.⁵

⁵ Attachments

1. Confidential grade report (Sample attached – Appendix J)
2. High School Quick Connect Phone Directory (Phone directory includes teacher name and number)

Appendix H

Electronic Communication Week 5

Dear Parent/Guardian,

Would your student lose their head if it wasn't attached to their body? Research shows that when **students have and use a method for keeping track of their daily assignments** with a student planner, weekly assignment sheet, or use an electronic calendar/organization app their performance improves. Take a moment when reviewing the attached grade report with your student to agree on a method for keeping track of daily assignments, tests, and other obligations. To maximize positive results, check that they use an organizer weekly. (see attachment: Weekly Assignment Sheet)

Thank you for taking the time to help your student maximize their success at school. Please utilize the staff directory or attached quick connect phone directory to contact your student's teachers with questions/concerns.⁶

⁶ Attachments

1. Weekly Assignment Sheet (Appendix M)
2. Confidential grade report (Sample attached – Appendix J)
3. High School Quick Connect Phone Directory (Phone directory includes teacher name and number)

Appendix I

Electronic Communication Week 6

Dear Parent/Guardian,

Is your home always a constant buzz of activity? Research shows that when **parents provide students with a quiet place to complete their work free from distractions** performance improves. (The kitchen table usually provides a visible location where students can work and parents can periodically check on their progress.) When reviewing the attached grade report with your student, please take a moment to make a plan so that your student can have a quiet agreed upon time and place to study (see attachment: Daily Homework-Time Planning Form)

Thank you for taking the time to help your student maximize their success at school. Please utilize the staff directory or attached quick connect phone directory to contact your student's teachers with questions/concerns.⁷

⁷ Attachments

1. Daily Homework-Time Planning Form (Appendix N)
2. Confidential grade report (Sample attached – Appendix J)
3. High School Quick Connect Phone Directory (Phone directory includes teacher name and number)

Appendix J

Electronic Communication Week 7

Dear Parent/Guardian,

Do you ever feel like your student is constantly arguing with you? Research shows that when **parents follow the formula to make specific requests of their student, compliance improves and arguing decreases.** Before reviewing the attached grade report with your student, please take a moment to consider the attached Specific Requests Formula document. When the formula is used consistently, over long periods of time, students learn to argue less and follow directions sooner.

Thank you for taking the time to help your student maximize their success at school. Please utilize the staff directory or attached quick connect phone directory to contact your student's teachers with questions/concerns.⁸

⁸ Attachments

1. Specific Requests Formula (Appendix O)
2. Confidential grade report (Sample attached – Appendix J)
3. High School Quick Connect Phone Directory (Phone directory includes teacher name and number)

Appendix K

Electronic Communication Week 8

Dear Parent/Guardian,

Do you feel like no matter what you have tried your student is still struggling? Research shows that when students continue to struggle and **all adults in the home work together to create a plan (see attachment: ABC Problem Solver Plan) that is used with the student consistently, student behavior and academic progress improve.** Before reviewing the attached grade report with your student, please take a moment to consider the attached ABC Problem Solver Plan document. Utilizing this type of plan can help parents to discover the reasons why students struggle and help to develop a path to address the individual issues that might prevent students from maximizing their potential.

Thank you for taking the time to help your student maximize their success at school. Please utilize the staff directory or attached quick connect phone directory to contact your student's teachers with questions/concerns.⁹

⁹ Attachments

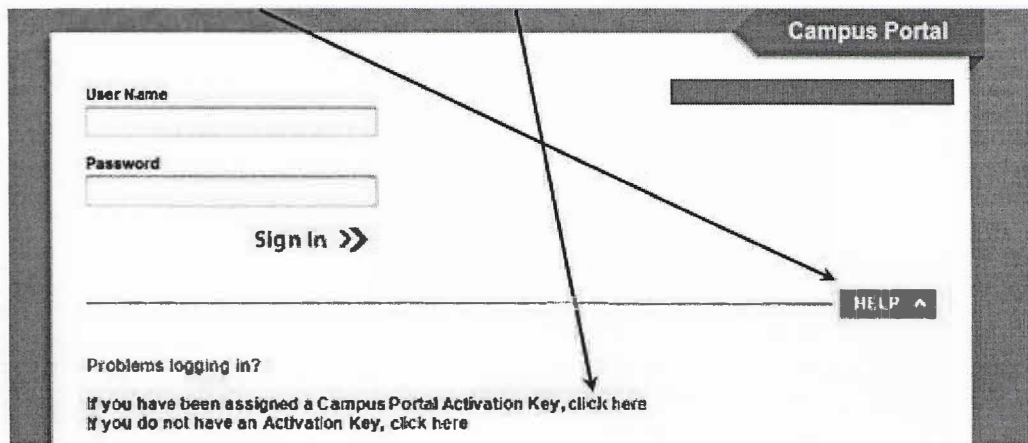
1. ABC Problem Solver Plan (Appendix P)
2. Confidential grade report (Sample attached – Appendix J)
3. High School Quick Connect Phone Directory (Phone directory includes teacher name and number)

Appendix L

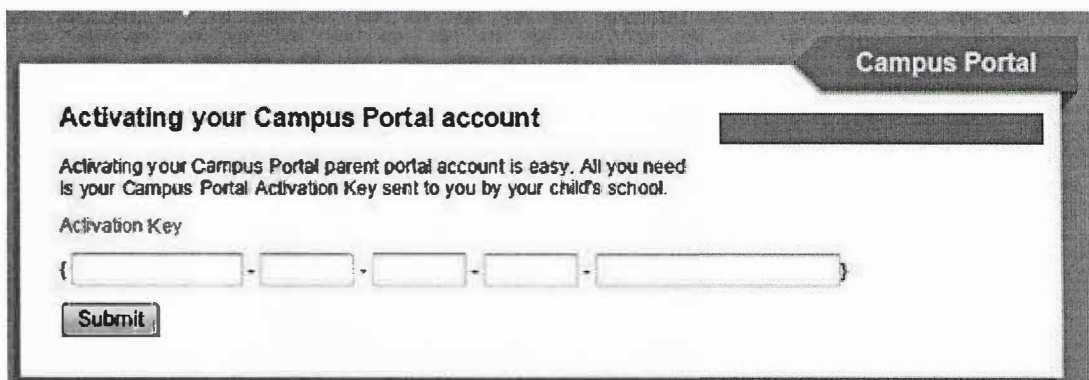
Infinite Campus Parent Portal Instructions

Log In Instructions

- Go to the [redacted] website: [redacted]
- See **QUICK LINKS (lower bottom right) – THEN SELECT INFINITE CAMPUS, then click on INFINITE CAMPUS FAMILY PORTAL**
- If you have an active account, enter your username and password here. If you do not have an account created and received an Activation Key (via email or a letter from school) click on the **Help** button and select this link.



- Enter the Activation Key that was provided to you exactly as it is written:



- Create your username and password
- You can now enter the Infinite Campus Parent Portal
In the future you can enter your username and password. (Your activation code can only be used once to create your account.)

Help your son/daughter create a list of incomplete assignments and create an after school study schedule. At the beginning of each study period ask them what they plan to complete, and have them show you each item they finish.

If your son/daughter tells you that the information in Infinite Campus is inaccurate or has not been updated please contact the teacher(s) by email or phone to clarify.

Example:

Parent: I checked Infinite Campus and it looks like you have several missing assignments in Math.

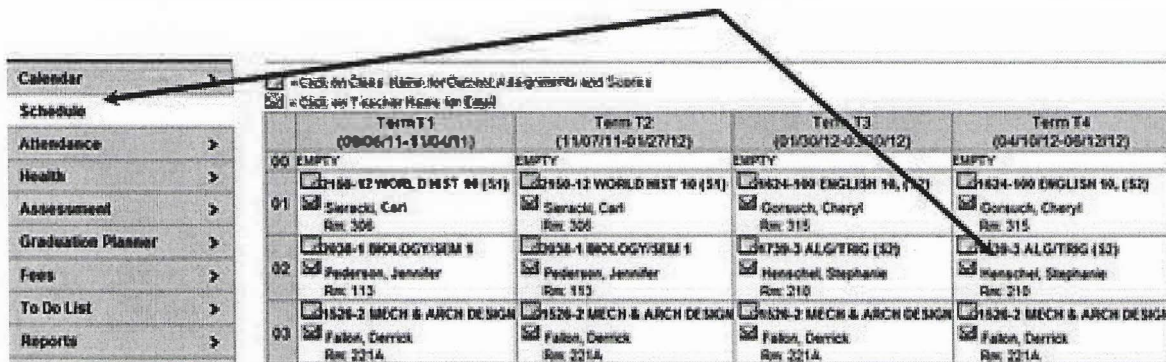
Student: Oh no, I turned those in today they just haven't put them in the computer yet.

Parent: OK, I'll just send your teacher an email and check to make sure they have them.

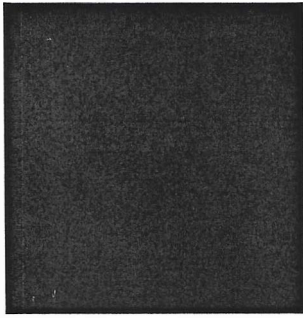
Student: ~~Uh-huh~~ Maybe I should check my backpack first!

**All teacher email addresses use the following formula:
 lastnamefirstinitial@mpsd.k12.wi.us (i.e. doej@mpsd.k12.wi.us)**

Another way to send an email is to select Schedule from the main menu and then click on the teacher's name.



Clicking on this link will open your default email program and will automatically list the teacher's email address.



Date: 12/20/2017

To: [Redacted]
From: [Redacted]

Protocol Title: The Effect of Directive Digital School-Parent Communication on Student Achievement and Behavior

Protocol Number: 973036

Protocol Approval Date: 12/20/2017

Protocol Expiration Date: 12/19/2018

On behalf of the [Redacted] Institutional Review Board for Protection of Human Participants (IRB), I am pleased to inform you that your application has been approved. This approval provides permission to begin the human subject activities as outlined in the IRB-approved protocol and supporting documents.

Your research has been approved by the Full Board as NON-EXEMPT.

Non-exempt research is subject to compliance with federal regulations and [Redacted] policies regarding the use of human subjects as described in the IRB Application materials. In conducting research under this protocol, the researcher agrees to:

- Submit a Modification Request Form and secure approval before making any changes to the protocol.
- Submit a Continuing Review Form prior to the expiration date to extend the protocol beyond the end date.
- Report to the IRB any unanticipated risks the research subjects or deviations from the procedures as described in the protocol as soon as they are identified.
- Complete an IRB Closure Form when the research is completed.
- All IRB forms may be found on the Sponsored Programs and Faculty Development website, completed, and sent electronically to [Redacted]
- As required by [Redacted] record retention policy, please retain all research data and signed consent forms for seven years after completion of the study.

Please contact me if you have any questions ([Redacted] or e-mail: [Redacted]).

Sincerely,



cc: [Redacted]

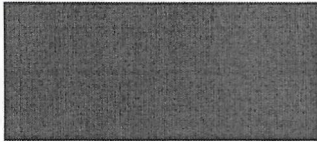
OFFICE OF GRANTS AND FACULTY DEVELOPMENT / INSTITUTIONAL REVIEW BOARD



An Equal Opportunity/Affirmative Action Institution [Redacted]

Appendix M

Sample Grade Report



2017 - 2018 FIRST QUARTER IN-PROGRESS
REPORT CARD

Grade: 11 Student ID: [REDACTED]

Counselor: [REDACTED]

GPA Summary:

	T1
Term GPA	2.0

Attendance Summary:

Terms:	T1		Total	
Period	Absent	Tardy	Absent	Tardy
00	0	0	0	0
01	1	0	1	0
02	1	0	1	0
03	1	0	1	0
WIN	1	0	1	0
04	0	0	0	0
05	0	0	0	0
06	1	0	1	0
07	1	0	1	0
08	0	0	0	0
ACT	0	0	0	0
Total	6	0	6	0

Grade Report

Course	Task	T1
02) 1650-300 ENGLISH 11	Quarter Grade	C-
06) 1733-810 INT. GEOMETRY - S1	Quarter Grade	D+
03) 2026-500 INT LIFE SCIENCE, S1	Quarter Grade	A-
04) 2150-700 WORLD HIST (S1)	Quarter Grade	D
05) 3848-1 FUND WELLNESS	Quarter Grade	A-

Appendix N

How Parents Help Students Succeed

If you are working to help your son/daughter in school here are a few helpful tips:

1. Check Infinite Campus on a regular basis to find out if your son/daughter is getting behind. This site can be used to get report cards, progress reports, attendance reports, missing assignments, and even immunization records.

(See “How to Use Infinite Campus” document)
2. Help your son/daughter organize their missing work. Using Infinite Campus help them create a list of missing work and create a weekly study schedule they can use to complete this work.
3. At the beginning of each study session ask them what they are planning to accomplish and have them show you each project they complete.
4. To improve communication, create a list of all of your child’s teacher’s email addresses. Teacher names can be found on Infinite Campus and their emails follow this pattern:

teacherslastnamefirstinitial 

5. Once a week (Wednesdays are good) send an email to all of your child’s teachers asking for an update.

ex: Hello Teachers, as the weekend approaches I would like to help my son/daughter get organized and stay on top of their work at school. Please email a list of any missing work they should focus on and upcoming projects or tests they should prepare for this weekend. Thanks for your help,

Email can also be a helpful tool when you receive conflicting information from school and your

student. For example:

Parent: I checked and it looks like you have several missing assignments in Math.

Student: Oh no, I turned those in today they just haven't put them in the computer yet.

Parent: OK, I'll just send your teacher an email and check to make sure they have them.

Student: Uhhhhhhh. Maybe I should check my backpack first!

Appendix O

Student Parent Homework Contract

This contract establishes the homework rules in your home. Personalize to suit what works best for you and your family. It is recommended that you review/revise the contract at the end of each quarter based on the student's report card.

This contract is between _____ (the student) and _____ (the parent).

The student agrees to:

1. Bring all homework and materials home from school. (Not having the necessary materials will require me to return to school or lose my privileges for the day).
2. Keep track of homework by using my electronic app, assignment notebook, or a Weekly Assignment Sheet. (See "Weekly Assignment Sheet")
3. Complete all of the assignments that are due the next day. If there is no assigned homework I will spend a minimum of 30 minutes reviewing notes or reading.
4. Do only homework during this time. No TV, loud music, games, or phone calls are permitted during homework time.
5. Create a weekly schedule of when you will be completing your daily study time. (If possible avoid scheduling homework as the last thing you do before bed.)
6. Access to my privileges _____ (i.e. visiting friends, TV, computer, phone, video games, car, etc.) will be granted after homework has been completed successfully.
7. Ask teachers or my parents for help when I need it.

The parent agrees to:

1. Communicate with teachers by email if I have a question about an assignment or my son/daughter's progress.
2. Provide a quiet, uninterrupted place for homework to be done. No TV, loud music, or phone calls are permitted in the same room. All other children not doing homework are to be kept occupied elsewhere.
3. Access Infinite Campus on a weekly basis to understand the student's current grades and the assignments/projects to be completed. (see "Infinite Campus Instructions")
4. Help organize and review assignments that need to be completed by the student before they start their homework and establish goals/projects they need to complete that day.
5. Provide the necessary tools for doing the assignments.
6. Be available to assist during homework time.
7. Review student's progress at the end of their homework time to ensure their goals have been met and the student has earned access to their privileges that day.

Signed _____ (student) Date _____

Signed _____ (parent/guardian) Date _____

Signed _____ (parent/guardian) Date _____

Homework Contract Daily Checklist

Student Responsibilities (Check off each completed task on a daily basis.)

Responsibilities	M	T	W	Th	F	S	S
I brought all the assignments & material I need home from school.							
I kept track of my homework by using my assignment notebook or a Weekly Assignment Sheet.							
I completed all of my daily assignments. If I had no homework today I will study or read for a minimum of 30 minutes.							

Access to my privileges _____ (i.e. visiting friends, TV, computer, phone, video games, car, etc.) will be granted after all tasks have been completed successfully.

Parent Responsibilities (Check off each completed task on a daily basis.)

Responsibilities	M	T	W	Th	F	S	S
At the beginning of study time, I helped my son/daughter establish the goals they needed to complete.							
I provided a quiet, uninterrupted place for homework to be done.							
I provided the materials needed to complete their assignments.							
I was available to provided help when it was needed.							
I reviewed my student's progress at the end of their homework time to ensure their goals were met. I acknowledged their accomplishments and confirmed if they earned their daily privileges							
I logged in to Infinite Campus and understand the assignments they need to work on and their progress in class. (at least once a week)	X	X	X		X	X	X
I communicated with teachers by email if I have a question about an assignment or my son/daughter's progress in class.							

Appendix P

Weekly Assignment Sheet

Assignment Sheet Name _____ For Week Beginning _____

Period	Class	Assignment(s)	Due Dates	Teacher's Initials/Comments	Long Term Assignments	Due Dates
1st		Mon:				
		Tues:				
		Wed:				
		Thurs:				
		Fri:				
2nd		Mon:				
		Tues:				
		Wed:				
		Thurs:				
		Fri:				
3rd		Mon:				
		Tues:				
		Wed:				
		Thurs:				
		Fri:				

Period	Class	Assignment(s)	Due Dates	Teacher's Initials/Comments	Long Term Assignments	Due Dates
4th		Mon:				
		Tues:				
		Wed:				
		Thurs:				
		Fri:				
5th		Mon:				
		Tues:				
		Wed:				
		Thurs:				
		Fri:				
6th		Mon:				
		Tues:				
		Wed:				
		Thurs:				
		Fri:				
7th		Mon:				
		Tues:				
		Wed:				
		Thurs:				
		Fri:				

Appendix Q

Daily Homework-Time Planning Form

1. My student's homework place will be:

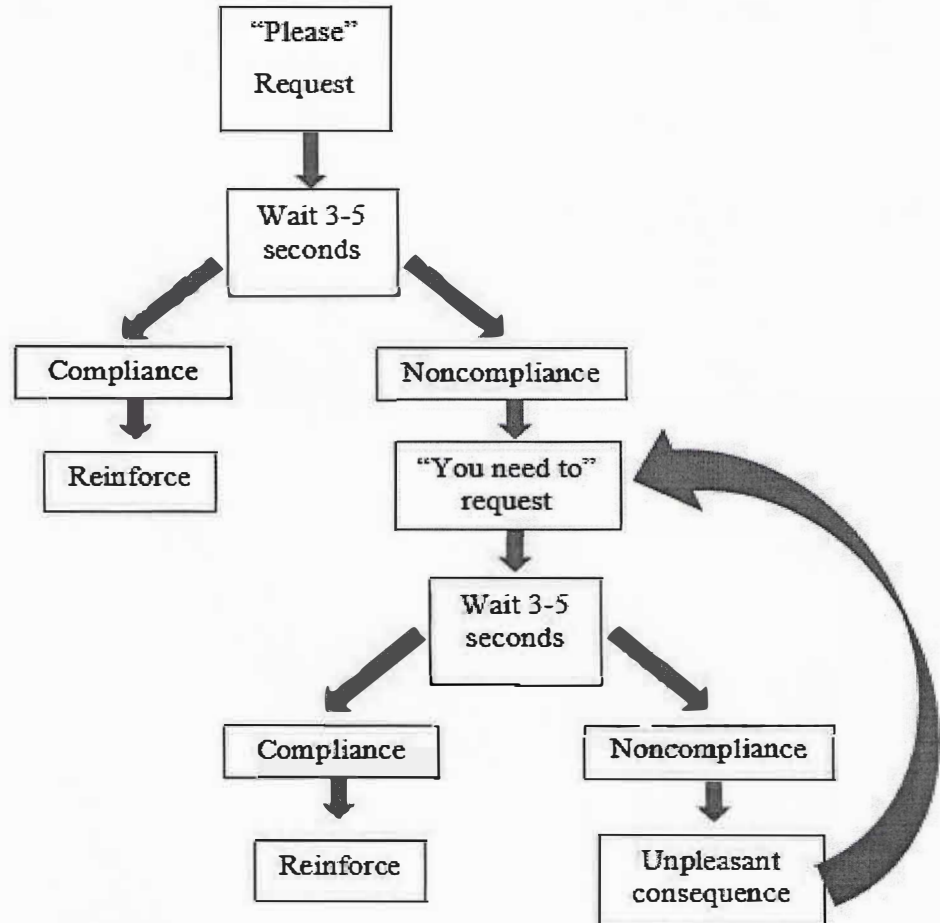
2. My student's homework time each day will be from

_____ to _____

3. I will use the following reward system(s) to reinforce my child's accurate homework completion:

Appendix R

Specific Requests Formula



From The Tough Kid Book (2nd Ed) by G. Rhode, W. R. Jenson, and H. K. Reavis, 2010, Eugene, OR: Pacific Norwest Publishing

Appendix S

ABC Problem Solver Plan

A. (Who, what, when, where)

B. (Define problem behavior)

C. (What Happens after problem behavior?)

1. What behavior do you want instead of the problem behavior?

2. The steps to solve the problem will be:

- a.
- b.
- c.
- d.
- e.

Appendix T

Recruitment Letter

Dear Parent/Guardian,

Do you feel like your student is reluctant to engage in school work or even discuss school at home? Consider participating in the 8-week electronic communication student achievement study. Study participants receiving the intervention will receive 8 weekly electronic communications (text message or email) from the school with student grade reports, teacher contact information, and researched based suggestions for working with your student at home. Participants will play an important role in determining the usefulness of a schools practice of electronic communication as a means of helping students and parents.

This form is not consent to participate in the study. This form will be used to gather a pool of potential candidates, and further consent will be requested.

Please indicate your preference to participate in the study by:

- 1. E-mailing [redacted] your name, phone number, email address and desire to participate.
- 2. Calling [redacted] and leaving your name, phone number, email and desire to participate.
- 3. Returning this form to [redacted] through mail (see below) or dropping it off in the main office of [redacted].

Name: _____

Phone number: _____

E-mail address: _____

Check one: _____ - YES I do desire to participate in the study.
_____ - NO I do not desire to participate in the study.

If you have any questions, please contact:

[redacted]
[redacted]
[redacted]
[redacted]
[redacted]
[redacted]