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Teacher Perceptions Of Parent-Teacher Communications And Practice

Misty Rose Tomchuk

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TEACHER PERCEPTIONS OF PARENT-TEACHER COMMUNICATIONS
AND PRACTICE

by

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DEDICATION

To my children, Trenton & Oscar.

ABSTRACT

It has been established in prior research that parent involvement and school-family partnerships have the potential to positively impact student achievement; however, creating and maintaining positive and productive parent-teacher communication can be difficult. Since teachers function as the link between school and the home, there is an increased need to study the perspectives and experiences of teachers. The purpose of this study was to examine the relationship between teacher perceptions of parent-teacher relationships, teacher conversation competence, and teacher communication frequency with parents.

This study involved an online survey distributed to 234 participants via Amazon Mechanical Turk. The following results were found to be significant: teacher relationship beliefs and the presence of a teacher contact mandate had a negative correlation with communication frequency, and teacher conversation competence had a positive correlation with communication frequency. In regression analysis, relationship beliefs and contact mandate were suggested to be significant negative predictors of communication frequency, whereas conversation competence was a significant positive predictor. SEM analysis suggested that only conversation competence was a significant predictor of communication frequency, which raises questions about the potential for mediation.

The major limitation of this study was the lack of convergent validity, which could have arisen due to issues with individual measures and exacerbated by a heterogeneous and potentially uncommitted online sample pool. Potential implications of this study include providing information to inform current teaching practice and improving teacher education and professional development. If teachers feel more prepared entering into parent-teacher dialogue, student achievement could be improved.

CHAPTER I: INTRODUCTION

There is a large body of research suggesting that increased parent involvement can positively impact student academic performance (Cattermole & Robinson, 1985; Dauber & Epstein, 1989; Henderson & Mapp, 2002; Jeynes, 2012; McCoach et al., 2010; Munn, 1985; Powell, 1978; Seitsinger et al., 2008; Stringer & Hourani, 2013). Traditionally, it has been the responsibility of teachers to initiate communication with parents to help facilitate their involvement. The theory of overlapping spheres of influence states that “students learn more and succeed at higher levels when home, school, and community work together to support student learning and development” and goes on to explain “how educators, families, and communities can connect to support student learning and success” (Epstein & Sanders, 2006; p. 87). Teachers play a crucial role in connecting the academic lives of students with the home environment.

It was noted in Epstein’s (1986) foundational article on parent-teacher relationships that “teachers have strong opinions on parent involvement” (p.277), which impact how they interact with and relate to parents. Despite the increase in research into the field of parent-teacher communication since the late 1980’s, very little is known about how teachers perceive these partnerships and if their beliefs truly impact efforts to reach out to parents (Seitsinger et al., 2008). Given that the teacher is the bridge between student academic performance and the home, it becomes important to better understand the relationship between teacher attitudinal beliefs and teacher behavior when it comes to communicating with parents. Two factors have come to light in the literature that could potentially affect the

frequency and classroom conditions that lead teachers contact to parents: relationship beliefs and perceived conversation competence.

Researchers found that teachers may feel inadequate and unprepared to initiate contact with parents (Ankrum, 2016; Westergard, 2013) and that they may have negative beliefs about parent-teacher relationships that prevent them from contacting parents (Lau & Ng, 2019). In addition to this, it has been revealed that if teachers are only reaching out to parents because of negative student behaviors, the parent-teacher relationship may become strained (Williams et al., 2011). This research conducted by Williams et al. (2011) provides evidence that the beliefs and actions of teachers play an important role in facilitating parent-teacher communication and can powerfully impact the academic success of their students. There are very few studies in the academic literature that investigate teacher perceptions of communication with parents. By better understanding teacher perceptions and practices regarding parent communication, program improvements and interventions could be made to enhance parent-teacher communication and improve student academic performance.

Purpose of Study and Research Questions

The purpose of this study was to examine a hypothesized structural model positing relationships between 1) teacher beliefs about parent-teacher relationships, 2) teachers perceived conversation competence when communicating with parents, and 3) the frequency of communication with parents regarding student issues (Figure 1). The covariates of teacher grade level, teacher educational level, the existence of a school contact mandate for teachers, and additional teacher training were also examined along with other demographic variables such teacher gender, age, type of school, years of experience, US region, subject taught, and race/ethnicity.

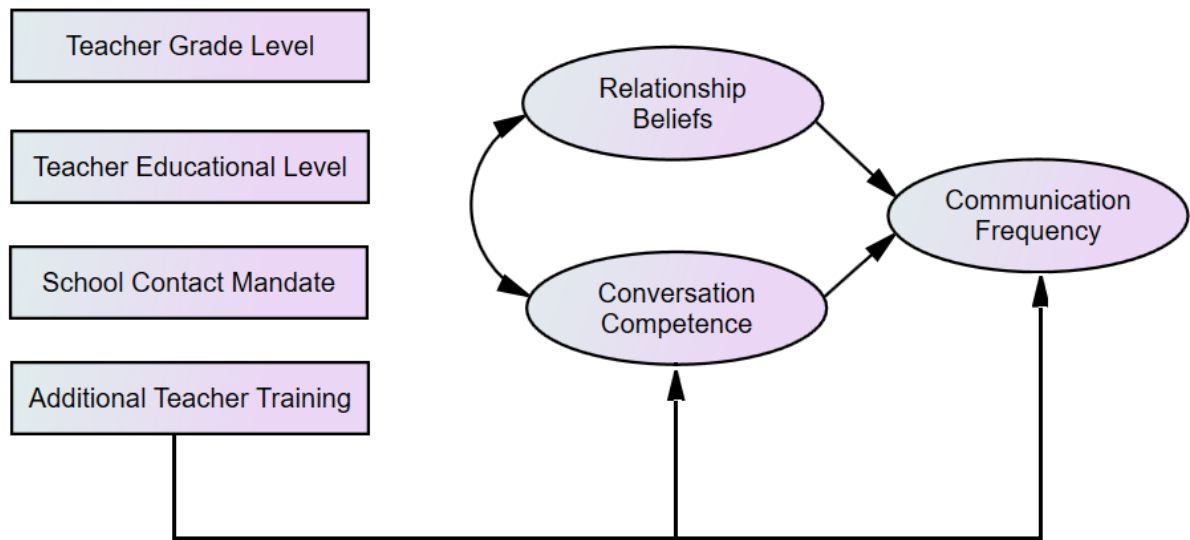


Figure 1. Structural model to examine the relationships between teacher perceptions and practice regarding communication with parents.

RQ1 – Do teacher beliefs about parent-teacher relationships correlate with their contact frequency?

RQ2 – Do teacher beliefs about parent-teacher relationships correlate with teachers’ own perceived conversation competence with parents?

RQ3 – Does a teachers’ own perceived conversation competence correlate with parent-teacher contact frequency?

Significance

Investigating teacher perceptions of parent-teacher relationships, conversation competence with parents, and the frequency of teacher communication with parents has powerful implications not only for improving parent-teacher relationships and student achievement, but teacher education and professional development practice as well. Increased

parent-teacher communication has been shown to positively impact student achievement by increasing parent involvement and school-family partnerships (Cattermole & Robinson, 1985; Dauber & Epstein, 1989; Jeynes, 2012; McCoach et al., 2010; Munn, 1985; Powell, 1978; Seitsinger et al., 2008; Stringer & Hourani, 2013). By better understanding teachers' beliefs regarding parent communication, their perceived communication competence, and communication frequency, new methods of training teachers can be developed.

Definitions

Theory of Overlapping Spheres of Influence: Students learn more and succeed at higher levels when home, school, and community work together to support students' learning and development and is used to explain how educators, families, and communities may connect to support student learning and success (Epstein & Sanders, 2006; p. 87).

Parent Involvement: specific action that parents take to become involved in the education of their children (Epstein, 1987).

Family Engagement: Programs and interventions that engage families in supporting their children's learning at home (Henderson & Mapp, 2002: p. 25).

School-Family Partnerships: focus on the role of school personnel and the interactions between parents and school systems (Williams et al., 2011; p. 689).

Teacher Communication Competence: A system of knowledge, skills, abilities, motivational disposition, attitudes and properties in teaching communication and social interaction; the essential competence of teachers (Zlatic et al., 2013; p.606).

Parent-Teacher Communication: one of Epstein's six types of involvement between parents and teachers regarding school programs and student progress (Epstein, 1995).

Teacher Relationship Beliefs: teachers attitudes toward parent-teacher communications (Epstein & Sanders, 2006)

Delimitations

The sample of this study is limited to a population of persons with K-12 teaching experience on Amazon's Mechanical Turk (MTURK).

Limitations

This study is limited to a general educator population on MTURK. The survey responses are subjective to their individual experiences and will not be specific to a school or district. The participants may not have actual experience in K-12 teaching, but claim to do so to get paid for survey participation.

Assumptions

This survey will be available in an online format. The assumptions made for this survey are 1) that the participants are actual teachers or have had teaching experience, 2) that the participants are truthful, and 3) that the participants understand the questions being asked.

Summary

This study seeks to test the hypothesized model (Figure 1, Appendix A) to examine the relationship between teacher perceptions of parent-teacher communication and teacher practice when initiating parent contact in the areas of 1) relationship beliefs, 2) conversation competence, and 3) communication frequency.

Chapter I has outlined the need, purpose, research questions, theoretical context, significance, delimitations, limitations, and assumptions for this study. An overview of the literature on overlapping spheres of influence, parent involvement, school-family partnerships, teacher conversation competence, and teacher attitudes surrounding parent-teacher relationships is provided in Chapter II. Chapter III is an explanation and context for this methodology, population, and data collection procedures. Chapter IV will provide empirical analysis of the results as they apply to the specified research questions. Chapter V will provide a discussion of the results and how they could be used to improve parent-teacher communication and positively impact teacher training programs in that area.

CHAPTER II: LITERATURE REVIEW

Parent-teacher communication has been hailed as being a crucial factor impacting student achievement for well over three decades and has become a major issue in educational reform initiatives (Cattermole & Robinson, 1985; Dauber & Epstein, 1989; Jeynes, 2012; McCoach et al., 2010; Munn, 1985; Powell, 1978; Seitsinger et al., 2008; Stringer & Hourani, 2013). Although initial research on parent-teacher communication sought to measure its value on student success and achievement (Epstein, 1985), once established, more recent efforts have focused on studying specific forms of parent-teacher interactions, the ways in which bi-directional communication occurs between these different levels of stakeholders, and stakeholder perceptions of parent-teacher communication (Bennett-Conroy, 2012; Epstein & Dauber, 1991; Harris & Robinson, 2016; Heath et al., 2015; Helling 1996; Higgins & Cherrington, Ho et al., 2013; Jeynes, 2012; Kraft & Rogers, 2015; Olmstead, 2013; Seitsinger et al., 2008; Sheridan & Wheeler, 2017; Strom & Strom, 2002; Thompson & Mazer, 2012; Thompson et al., 2015). The significance of parent-teacher communication has even caught the attention of national governments in the United States, Canada, and United Arab Emirates, further emphasizing the critical role communication plays in closing learning gaps and fortifying student learning outcomes (Bennett-Conroy, 2012; Epstein & Sanders, 2006; Gartmeier, Gebhardt, & Dotger, 2016; Hamlin & Flessa, 2018; McCoach et al., 2010; Stringer & Hourani, 2013).

The value of parent-teacher communication is clearly documented and grounded in the theories of parental involvement and partnerships between the school and home (Ankrum, 2016; Bennett-Conroy, 2012; Helling, 1996; Kraft & Rogers, 2015; Manz et al., 2004;

Marockie & Jones, 1987; Olmstead, 2013; Vickers & Minke, 1995; Williams et al., 2011). Yet, during the 2015-2016 school year the Parent and Family Involvement in Education (PFI) Survey of 51,162 K-12 children in the United States reported on average only 62% of parents received school-initiated communication in the form of notes or e-mail about a student and only 42% received a telephone call (McQuiggan & Megra, 2017). Despite a clear, identifiable need for parent-teacher communication reform, there are no set standards or tools to help facilitate this form of interaction. Lack of adequate teacher training (Gartmeier et al., 2016) and parental abilities, values, and perceptions about school (Li, 2006; Schneider & Arnot, 2018; Semke et al., 2010; Williams et al., 2011) appear to be the major obstacles to improving parent-teacher communications and their frequency. And, many efforts to improve interactions between the school and home have been studied with varied impacts, with efforts ranging from exploring parent perceptions of communication (Blakely, 1983; Cattermole & Robinson, 1985; Epstein, 1986; Li, 2006; Munn, 1985; Schneider & Arnot, 2018), to teacher self-reflection and training (Bauer et al., 2018; Gartmeier et al., 2016; Symeou et al., 2012), to utilizing new teaching methods (Arriaga & Longoria, 2011; Bennett-Conroy, 2012; Kraft & Rogers, 2015; LeBel et al., 2012), and incorporating new forms of technology into communication initiatives (Heath et al., 2015; Higgins & Cherrington, 2017; Ho et al., 2013; Kervin, 2005; Olmstead, 2013; Strom & Strom, 2002; Thompson, 2008; Thompson et al., 2015).

Sociological Theory

Theory of Overlapping Spheres of Influence. The theory of overlapping spheres of influence states that the school and the home are not separate domains in which students spend their time, but rather that they overlap with the student at the center of both of these

organizations. For students to be successful, these two institutions must communicate with each other and collaborate (Epstein, 1987). The extent of the overlap depends on three forces: time, the characteristics, philosophies, and practices of the family, and those of the school. It has been theorized that the interactions of these forces, particularly of the family and school, can either push these spheres together to benefit the student or be pulled apart (Epstein, 1987). In order for students to be successful, teachers and parents must come together to share information about student progress, show support for one another, and work together (Epstein & Sanders, 2006).

Parent Involvement. Parent involvement, when stated in its most simple form, is the specific action that parents take to become involved in the education of their children. Well known researchers such as Epstein (1987), Eccles and Harold (1993), and Hoover-Dempsey and Sandler (1995) have all attempted to define and create various models of parental involvement, and large bodies of research have accumulated as a result of their efforts impacting educational practices. In the 2002 study of 58 academic articles on the impact of parent involvement on student achievement, Henderson & Mapp (2002) called for educational researchers to “design and conduct research that is more rigorous and focused, and that uses more culturally sensitive and empowering definitions of parent involvement” (p.69), and continued to use the term family engagement to describe parent involvement throughout that publication. Despite the compelling argument to use the term family engagement, parent involvement is often used alongside family engagement in the academic literature and educational law.

It is useful to include meta-analysis to emphasize the amount of research that has been conducted on parent involvement and the powerful impact that parent involvement has on

student achievement. It has been generally accepted that parent involvement positively impacts student achievement, and to support this claim, Hill and Tyson (2009) found in their meta-analysis of 50 studies that when averaged parent involvement had a small positive association with achievement, and that academic socialization had the strongest association with achievement with a medium positive association. Jeynes (2012) performed a similar meta-analysis of 51 studies on the different types of parental involvement programs and discovered that there is a “significant relationship between parental involvement programs and academic achievement” in urban populations with a medium average effect size (p.706). It is undeniable that getting parents involved helps improve student success outcomes for all students. Despite the powerful impact parental involvement has on students, getting parents involved is more difficult than it seems.

A multitude of social and societal factors come into play when exploring parent involvement. Despite parent desire and willingness to be involved in their children’s education, there are obstacles that prevent them from doing so. Epstein (1985) brings forward the concept of overlapping spheres of influence, home, community that impact parent involvement- and that three forces: 1) time, 2) family beliefs and characteristics, and 3) school beliefs and characteristics can either help or hinder the parent involvement process. With more and more parents of both genders working outside of the home, pressures to have children involved in an increasing number of extracurricular activities, and changing communication technologies, the way to increase parent involvement has become quite complex for mainstream families (Thompson, 2008; Ho et al., 2013). Furthermore, as culturally diverse populations become more prominent in school communities, cultural misconceptions by schools, and a lack of understanding of the school system by parents, can

negatively impact parent involvement in minority and low-socioeconomic status households (Williams & Sanchez, 2012). It has become apparent that both facilities, home and school, need to come together to meet the educational needs of their students.

The half-century long divide between information that should be learned “at home” versus information that should be learned “at school” is no longer suitable, as parents and educators realize that shifting blame back and forth for lack of adequate student progress, is ultimately undermining student education as a whole (Rosenthal & Sawyers, 1996).

According to United States Code of Law §7801 (39), parental involvement describes the “participation of parents in regular, two-way, and meaningful communication involving student academic learning and other school activities”. The significance of this definition lies in its directionality and intention, “two-way” specifically indicates that both stakeholders, parents at home and teachers/administration at school, need to come together and communicate to figure out how to best educate students. “Meaningful” is significant in that the interactions between parents and teachers/administration need to be focused on student learning or other activities, their communications can no longer be superficial or shallow. Simply remembering parent or teacher names, acknowledging each other in social situations, or even merely just being polite during interactions no longer constitute the home-school/teacher communication necessary to help students learn.

Despite the clear value of the foundational work completed by Epstein (1985), Eccles and Harold (1993), and Hoover-Dempsey and Sandler (1995), modern researchers are calling for modifications to the long upheld, existing models of parent involvement, which focus on different parent involvement domains or types: parenting, communicating, volunteering, learning at home, decision-making, and collaborating with community. According to Epstein

(2010), communicating is one of the six basic types of parental involvement activities. Goodall and Montgomery (2014) state that because different schools participate in different parent involvement activities with different groupings of parents, parent involvement needs to exist on a continuum working toward parental engagement with children's learning, where parents take more active roles. Research applying Epstein's typology finds that modern parents from different settings face different obstacles to parent involvement, which have not been identified by prior models (Hamlin & Flessa, 2018). And finally, Harris and Robinson (2016) argue that parental involvement does not operate through previously proposed channels and the current models need revision.

Over time different models and programs have emerged to define and describe the mechanisms behind parent involvement. But one fact remains clear, engaging parents in conversations about the academic success of their children, and inviting parents to participate in learning activities will only help unify parents and schools on the task of improving student performance. Parent involvement has been demonstrated as having profound positive impacts on student achievement for not only mainstream students, but for diverse types of student populations as well. Efforts to better understand and improve parent involvement are and will continue to be current and relevant areas of interest for educational practitioners and academic researchers alike.

School-family partnerships. There has been a significant shift in parent versus teacher roles in the education of students due to recent social changes, the structure of family, and access to technology (Seitsinger et al., 2008). The concept of school-family partnerships stems from studies performed on parent involvement. School-family partnerships are similar to parent involvement, which focuses on activities that parents can do to help their students

learn. The defining factor differentiating these terms is the focus of school-family partnerships “on the role of school personnel and the interactions between parents and school systems” (Williams, et al., 2011: p.689) and has roots in ecological perspectives. In school-family partnerships, the schools must take an active role in facilitating parent involvement.

The ecological approach involves four principles: interdependence, cycling of resources, adaptation, and succession.—Paradeck (1988) states that this ecological approach is beneficial for problem solving because it acknowledges that human problems arise from complex interactions between psychological, social, economic, political, physical, and environmental factors. With this understanding a practitioner can treat systemic problems and address the needs of various levels including the individual, family, small group, and the larger community. Work done by Williams et al. (2011) further explains these principles within the context of school-family partnerships. Interdependence states that school systems have interdependent components, and that changes in one lead to changes in another component. The cycling of resources emphasizes that both the school and the family are and contain resources that help students learn. Adaptation describes the fit of a person or student within the school environment, as a person acclimates to their environment change occurs both to that person and also to the environment. And finally, succession implies that school-family partnerships are always changing and growing to meet the needs of the students.

Rather than just focusing on the singular factor of parent involvement, which can take many different forms, family-school partnerships have become an emerging field of research. “School-family partnerships bring together the concepts of parental involvement and parental participation in their children’s educational development” (Daniel, 2011: p. 166). Daniel (2011) begins the conversation to shift parent involvement into pedagogical practice. Instead

of parent involvement being viewed as something done specifically by families outside or slightly within the walls of schools- parent involvement is something that teachers and schools actively strive for and plan for in their instructional strategies and school improvement plans.

Epstein's six types of parent involvement framework combined with ecological models help "structure research evidence in the field, has formed the basis for research programs, and the development of policy in schools" (Daniel, 2011: p. 168). Additional work by Sheridan and Wheeler (2017) attempts to inform school/teacher based decision making and efforts in the area of parent involvement by translating the body of research into useful implications for teaching practice. Work done by scholars of school-family partnerships attempt to close the gap between the empirical evidence obtained from academic research, and transform that often confusing information into useful school level and classroom strategies that positively impact student achievement.

In summary, the concept of school-family partnerships arose out of, and is still heavily reliant on, the concept of parent involvement. School-family partnerships focus on how the school can improve its efforts to involve parents and families in positive interactions that promote student success. Schools have become microcosms of student learning, seemingly isolated from the world beyond their walls and practice fields. Individual schools develop their own customs and culture that can make infiltrating this system challenging for some parents, especially those of minority or low-socioeconomic status. By focusing on school-family partnership initiatives, academic research can combine with teacher practice, creating an open door for parent involvement.

Teacher conversation competence. Recent efforts to explore teacher understanding of their own communication abilities with parents have revealed that many teachers are unsure of how to best communicate with parents. An international review of literature “reflects that teachers are poorly prepared for the communication aspect of their professional work, especially regarding interactions with parents” (Gartmeier et al., 2016: p.207). Despite the importance of home-school/teacher communication, there is very little training for teachers on how to interact with parents beyond parent teacher conferences in teacher education programs and teachers are expected to learn as they go (Gartmeier et al., 2016). With the general parental ideology that no news is good news (Strom & Strom, 2002), teachers are often responsible for initiating contact with parents, and without the requisite tools and confidence to do so, these types of communications are not always being initiated when necessary, especially when dealing with at-risk students.

In-service teacher training has been suggested as a viable tool for overcoming pre-service and new teacher reluctance to initiate conversations with parents. Informal parent-teacher communications provide opportunities to share information and keep each other up-to-date with regard to current student issues. By utilizing training through communication and counseling skills, teachers became more professionally confident and secure (Symeou, et al., 2012). It is interesting to note that despite being willing to participate in the study by Symeou et al., “they [teachers] appeared hesitant in adopting skills that might threaten or cast doubt on their professional expertise, power, and status, and this maintained a distance from parents” (2012: p. 81). Another study by Bauer et al. (2018) looks at professional conversation training to bridge the gap in effective pre-service teacher communication practices found modest gains in teacher abilities.

These findings are significant in that teacher reflection revealed inadequacies in teacher education and continuing education programs. Without this insight, teacher reluctance to engage in conversations with parents would not be as well understood, and improvements in teacher education programs would not be attempted in this area. Continuing education programs that focus on communication between teachers and parents can have a positive impact on teacher confidence and willingness to participate in bi-directional communication. It is interesting to note, that although there is similarity in the findings between parent and teacher perceptions, a status related disconnect remains in the present day between parents and teachers, with some teachers choosing separation over cooperation to the detriment of their students (Symeou et al., 2012).

Teacher Relationship Beliefs. Teacher attitudes regarding the parent-teacher relationship are significant in determining the extent to which parents are involved in the academic lives of their students (Epstein & Sanders, 2006; Lau & Ng, 2019). Seitsinger et al. (2008) go on to state that “teacher’s beliefs play a strong role” in the level to which teachers reach out to parents (p: 501). Research on teacher competences has revealed that teachers exhibit a large variety of attitudes toward parent-teacher communications (Epstein & Sanders, 2006). It was suggested by Denessen et al. (2009) that teacher attitudes toward parent-teacher relationships are formed by personal biography rather than as a result of teacher training programs, and are heavily reliant on their own personal experience as students themselves. Students whose parents had high levels of involvement simply formed positive attitudes surrounding parent-teacher relationships once they became teachers themselves. Although seemingly insignificant, this result points to the lack of a clear link between “communication practice and theoretical and empirical knowledge about the value

and relevance of strong parent-teacher partnerships” in teacher education training programs (Denessen et al., 2009: pg. 30).

Summary

Research on parent involvement and school-family partnerships has revealed that increased communication between parents and teachers has positive effects on student achievement. Past and current interventions have also demonstrated positive improvements in communication between teachers and parents, but this body of research has yet to be transformed into useful teaching practice for educators in order to fully impact student achievement on a larger scale. It is important at this point when reviewing parent involvement, school-family partnerships, and the communication intervention literature, to recall an early statement issued by Cattermole and Robinson in 1985, as it seems to reveal sage advice with respect to technological innovations for communication, “home/school communication can be improved without spending large sums of money... if schools really want to communicate more effectively with parents, they have only to develop more fully the traditional modes of home/school communication that rely on direct, personal contact between educators and parents.” (p. 50).

If parent-teacher communication is the key to improving student success, the spotlight of inquiry must shift onto the teacher. As the gatekeepers of academic information and the primary points of contact within a school, teachers must become responsible for communication efforts with parents. By studying the relationship between teacher attitudes on parent-teacher relationships, their perceived conversation competence when facilitating parent-teacher interactions, and contact frequency, information can be gained to facilitate and support parent-teacher communication and improve student achievement.

CHAPTER III: METHODS

The purpose of this study was to examine a hypothesized structural model positing relationships between 1) teacher beliefs about parent-teacher relationships, 2) teachers perceived conversation competence when communicating with parents, and 3) the frequency of communication with parents regarding student issues. The covariates of teacher grade level, teacher educational level, the existence of a school contact mandate for teachers, and additional teacher training were also examined along with other demographic variables such as teacher gender, age, type of school, years of experience, US region, subject taught, and race/ethnicity.

Research Questions

RQ1 – Do teacher beliefs about parent-teacher relationships correlate with their contact frequency?

RQ2 – Do teacher beliefs about parent-teacher relationships correlate with teachers' own perceived conversation competence with parents?

RQ3 – Do teachers' own perceived conversation competence correlate with parent-teacher contact frequency?

Hypotheses

H1 – Teachers who perceive stronger relationships with parents will have more frequent contact with parents (Lau & Ng, 2019; Seitsinger et al., 2008).

H2 – Teachers who perceive stronger relationships with parents will have a higher degree of conversations competence with parents (Denessen et al., 2009).

H3 – Teachers with higher perceived conversation competence will have increased parent contact frequency (Westergard, 2013).

Survey Methodology

Utilizing a survey methodology has been demonstrated as being a common way to assess parent-teacher communications practice (Ankrum, 2016; Cattermole & Robinson, 1985; Epstein, 1986; Gartmeier et al., 2016; Helling, 1996; Kraft & Rogers, 2015; Powell, 1978; Seitsinger et al., 2008; Semke et al., 2010; Symeou et al., 2012; Vickers & Minke, 1995). Surveys allow for quick data collection from a larger sample population.

This survey was distributed online with Qualtrics, a cloud-based software platform for creating and distributing web-based surveys, and were accessed via a survey link on the MTURK website. Ethical permissions were obtained through the Institutional Review Board (IRB) at the University of North Dakota (UND) after the proposal was approved by the committee.

Research Procedures

Participants and Procedure

Participants were persons who had established themselves as K-12 educators on MTURK in the United States. A goal of recruiting 200+ persons was chosen because it is considered a critical sample size for structural equation modeling (SEM) (Garver & Mentzer, 1999; Hoelter, 1983). Utilizing MTURK was beneficial in that it allowed the researcher to have access to a large sample pool. The main drawback was that the participants could not be associated with a specific school or district, leaving the researcher with no way to compare the results to local policies or reform initiatives. After selecting for survey completion and data cleaning, 243 participants remained. The teacher K-12 grade level and geographical location in the United States was evenly mixed among respondents (see Table 1). The majority of the participants were White (63.3%) and men (59.7%). The disciplinary area was

primarily English (56.3%) and the majority of teachers were from urban traditional public schools (50.6%). The majority of teacher experience was in the 1 to 10-year range (54.0%) and teachers held a bachelors (55.0%) or masters level degree (42.9%). For comparison the United States Department of Education report on the Condition of Education 2021 (NCES 2021-144) for public schools in 2017-2018, reported the majority of teachers are White (79%) and female (76%), with 37% in the 1-9 year range and 40% in the 10-20 year range of teaching experience, and 58% holding a post baccalaureate degree (Irwin et al., 2021). Teachers reported that only 20.5% were required to contact parents outside of parent teacher conferences, and 14.6% did not have any parent contact requirements set by their school. Teachers received most of their training on how to communicate with parents in their teacher education coursework (45.0%) or master's degree coursework (22.7%).

The link to the online survey was posted in MTURK to a selected population classified as educators, with a financial incentive of \$1 per survey. The survey was created in Qualtrics and took approximately 15 minutes for participants to complete. The full survey can be seen in Appendix D. The informed consent statement was the starting page of the survey, and consent had to be indicated prior to moving further into the survey.

Measures

This study tested the hypothesized measurement model (Appendix A) to examine the relationship between teacher perceptions of parent-teacher communication and teacher practice when initiating parent contact in the areas of 1) relationship beliefs, 2) conversation competence, and 3) communication frequency using the following measures. A complete table of items for all measures with subscales can be found in Appendix C.

Relationship Beliefs

Teacher relationship beliefs were measured using fourteen items adapted from Vickers and Minke (1995) Parent Teacher Relationship Scale- II (PTRS-II) focusing on teacher perceptions of a collaborative global relationship with parents. A global relationship is a relationship where the teacher holds a belief that generalizes interactions with all parents rather than small groups or individual parents. The items were distributed over three subscales, which were selected from the six available subscales because they have factor loadings greater than 0.80 and were easily generalizable to all parents. The three subscales (1 = *Poor*, 5 = *Excellent*): affiliation and support (e.g., “We trust each other.”), availability and dependability (e.g., “The parents keep their promises to me”), shared expectations and beliefs (e.g., “We understand each other”).

Teacher Conversation Competence

Gartmeier, Gebhardt, and Dotger (2016) Parent-Teacher Conversation Competence Scale measured perceived teacher conversation competence when communicating with parents. Nine items were evenly distributed among three subscales (1 = *does not apply*, 4 = *fully applies*): interpersonal relationships (e.g., “I can accept constructive criticism from parents.”), structuring the conversation (e.g., “I involve parents in goal planning conversations.”), problem solving (e.g., “I write down solutions that I have developed with parents at the end of conversations”).

Teacher Communication Frequency

Contact frequency was measured using 16 items adapted for teachers from Thompson and Mazer (2012) Parental Academic Support Scale (PASS). Following the question, “In an average month, I communicated with my students’ parents about...” were 16 items

distributed unevenly between 5 subscales, between 2 and 7 items each (1 = *not at all*, 5 = *about everyday*): academic performance (e.g., "... a student's grades in class.), classroom behavior (e.g., "... to discuss solutions to address a student's behavior in class."), preparation (e.g., "... how a student was not bringing materials to class."), hostile peer interaction (e.g., "... a student being picked on by his/her classmate."), health (e.g., "... a temporary health issue that a student is experiencing.").

Teacher Demographics

Teacher gender (i.e., 1 = man, 2 = woman, 3 = LGBTQ+), grade level (i.e., 1 = K – 5, 2 = 6 – 8, 3 = 9 – 12), type of school (i.e., 1 = magnet, 2 = charter, 3 = urban, 4 = rural, 5 = high risk, 6 = parochial, 7 = military, 8 = boarding), level of education (i.e., 1 = bachelor's degree, 2 = master's degree, 3 = doctoral degree), years of experience (i.e., 1 = 1 – 5, 2 = 6 – 10, 3 = 11 – 15, 4 = 16 – 20, 5 = 21 – 25, 6 = 26+), US region (i.e., 1 = west, 2 = midwest, 3 = southeast, 4 = southwest, 5 = northeast), school mandate (i.e., 0 = no, 1 = yes only parent teacher conferences, 2 = yes parent teacher conference and other requirements), additional training or education in communicating with parents (i.e., 0 = no, 1 = yes teacher education coursework, 2 = yes masters level coursework, 3 = yes school/district level professional development, 4 = yes independent professional development, 5 = yes other or more than one option listed above), subject taught (i.e., 1 = elementary education, 2 = english, 3 = math, 4 = science, 5 = vocational, 6 = art, 7 = foreign language), and race/ethnicity (i.e., 1 = Asian, 2 = Black/African American, 3 = Hispanic/Latino, 4 = Native American/Alaska Native, 5 = Native Hawaiian/Pacific Islander, 6 = White/Caucasian, 7 = Other/Mixed Race) were also measured and results can be found in Table 1.

Explanation of Data Analysis

Data analysis in SPSS involved data cleaning and organization to facilitate analysis, as well as descriptive statistics, reliability, and correlations. Exploratory factor analysis (EFA) was performed for all the established scales using principle axis factoring with a direct oblimin rotation, selected for eigenvalues >1 , and choosing to suppress small coefficients below 0.30. More specifically factor analysis was completed with total variance and scree plots to verify item inclusion. Reliability ranges for Cronbach's alpha are as follows, adequate > 0.70 , good > 0.80 , great = 0.85 to 0.90, redundant > 0.95 (Warner, 2013). The CFA procedures were conducted on the combined scales. The purpose of CFA is to test the relations of the observed/measured variables to the latent/unmeasured variables using maximum likelihood estimation of the covariance matrix (Marsh, Byrne, & Yeung, 1999). An examination of loadings was performed to determine convergent validity. Confirmatory factor analysis and the testing of the structural equation model (SEM) were performed using IBM SPSS AMOS 25.

The SEM analysis focused on the latent variables of relationship beliefs, teacher conversation competence, and teacher communication frequency, each of which were directly measured with the respective, well-established scales. The use of SEM is often justified in the social sciences because of its ability to impute relationships between latent variables from observable variables. A path diagram of the measurement model was created and the goodness of fit was assessed with the following measurements to test construct validity. Chi-square is an absolute fit index with a desired $p > 0.05$, but is sensitive to large samples sizes. Standardized Root Mean Square Residual (SRMR) is another absolute fit index has a cutoff of ≤ 0.08 (Hu & Bentler, 1999), values of < 0.10 are considered favorable

(Kline, 2005), yet new research value recommendations are < 0.05 (Byrne, 2016). A parsimony fit index, Root Mean Square Error of Approximation (RMSEA) with values < 0.06 or less having a great fit (Hu & Bentler, 1999), 0.08-0.10 as mediocre fit, and > 0.10 poor fit (MacCallum, Browne, & Sugawara, 1996). Comparative Fit Index (CFI), an incremental fit index with values > 0.90 first considered to be a good fit (Bentler, 1992), and now > 0.95 is the new standard (Hu & Bentler, 1999). Tucker-Lewis Index (TLI) is another incremental fit index with preferred values > 0.95 (Hu & Bentler, 1999). In addition to this, multigroup invariance tests were completed for gender, years of experience, teacher grade level, teacher educational level, school contact mandate, additional teacher training when communicating with parents.

CHAPTER IV:

RESULTS

Descriptive Statistics and Reliabilities

When all the original items were included in the relationship beliefs and conversation competence scales, the normality and reliability were insufficient to warrant continuing analysis. This was especially true of the relationship beliefs scale, Cronbach's $\alpha = 0.514$ compared to the literature value of $\alpha = 0.98$ (Vickers & Minke, 1995), which could potentially be attributed to the confusing wording of the Likert scale, the use of good/poor vs agree/disagree. The conversation competence scale also had a very low Cronbach's $\alpha = 0.585$, with a literature value of $\alpha = 0.82$ (Gartmeier et al., 2016). This low reliability could be due unfamiliar language in the Likert scale or the fact that the literature sample was fairly homogeneous all of which being secondary math teachers from Germany. The differences in Cronbach's α was so severe that it was easy to discern that an Exploratory Factor Analysis (EFA) should be done on all scales and items would need to be removed to increase normality and reliability when warranted before they could be used in the SEM analysis.

The relationship beliefs scale was reduced to 7 items ("It is difficult for us to work together", "Communication is difficult between us", "We have different views of right and wrong", "When there is a problem with the student the parents are all talk and no action", "When there is a behavior problem I have to solve it without help from the parents", "We see the student differently", "I expect more from the parent then I get"). The factor analysis revealed 3 factors that did not align with the subscales in the literature. There were 7 items removed during factor analysis. "When things aren't going well it takes too long to work them out" was removed due to factor loading < 0.1 . Two items remained on the third factor

and they were eliminated, due to needing 3 or more items for a subscale (“The parents keep their promises to me”, “We have similar expectations of students”). The remaining items loaded cleanly onto two factors each with specific positive (4 items) vs negative wording (7 items). The descriptive statistics for the positively worded items did not meet the requirements for normality, so they were excluded. The resulting Cronbach’s $\alpha = 0.809$, which lies in the good range of values for internal consistency.

The conversation competence scale was reduced to 5 items (“I can accept constructive criticism from parents”, “I can remain objective, even in difficult conversational situations”, “When talking to parents, I can involve them in finding solutions”, “I write down solutions that I have developed with parents at the end of the conversation”, “I repeat important statements of parents in my own words so I can be sure to have understood them correctly”). The factor analysis of the original 9 items revealed 2 factors, neither of which aligned with the subscales in the literature. The second factor contained 3 items, one of which had to be removed because it was double loaded (“In conversations with parents, I can involve them in finding solutions”), and the remaining 2 had opposite correlations, 3 factors are needed for a subscale so they were also removed (“I find it difficult not to take critique voiced by parents personally”, “When communicating with parents, I structure parents’ statements, summarize them and paraphrase them in my own words”). The resulting Cronbach’s $\alpha = 0.625$, which was less than adequate and did not demonstrate internal consistency.

The initial test of the communication frequency scale gave Cronbach’s $\alpha = 0.866$ compared to the literature value of $\alpha = 0.74 - 0.87$ (Thompson & Mazer, 2012). The communication frequency scale was reduced to 7 items to in order to have the greatest number of items that align onto a single factor (“How a student can improve his/her grade”,

“Why a student was not completing assignments”, “To answer a question a parent had about an assignment”, “A student talking back to me”, “A students ability to make/maintain friendships with peers”, “How a student was not bringing materials to class”, “A temporary health issue that a student is experiencing”). The first attempt at factor analysis resulted in the items loading onto 3 factors. These factors did not align with the subscales in the literature. Three items were double loaded and removed (“why a student received the grade he/she did”, “a student goofing off in class”, “a major physical health issue that a student is experiencing”). This reduced the second factor to only 2 items, which did not meet the 3 item requirement and were removed (“a students grades in class”, “to explain more about homework assignments”). The remaining items on the third factor were all negatively correlated, whereas the 7 items selected were positively correlated and addressed issues that involve a great deal of conflict, and were also removed (“To discuss solutions to address a students behavior in class”, “A student being picked on by his/her classmates”, “A major classroom behavioral incident”). The resulting Cronbach’s $\alpha = 0.853$ was considered to be in the good range of internal consistency.

After removing items based on tests of reliability and factor analysis the remaining items showed sufficiently normal distributions (i.e., skewness less than 2.3; Lei & Lomax, 2005; kurtosis less and 7.0, Byrne, 2010). The remaining items were then averaged into scales (see Table 3).

Correlations

The correlations between the latent variables were all statistically significant at the $p < 0.01$ level (see Table 4). Relationship beliefs showed a small negative correlation with conversation competence and a medium negative correlation with communication frequency.

Conversation competence displayed a small positive correlation with communication frequency.

Regression

Simultaneous multiple regression analysis was performed by the researcher to be used as a comparison to the structural model analysis below. When compared to the analysis technique of multiple regression, SEM allows multiple independent and dependent variables to be examined simultaneously, the error is modeled allowing path estimates to be more precise, and it can provide for a more powerful test of mediation and moderation. With communication frequency held as the dependent variable, relationship beliefs were found to be a negative predictor, conversation competence was found to be a positive predictor, and the covariate of school contact mandate was a negative predictor of communication frequency even when grade level, educational level, and communication training were included (see Table 5). Being identified as a predictor variable is an important distinction in that it indicates that there is a linear relationship between the variables that has clear directionality and that changes in one will predict changes in the other. Twenty-eight percent of communication frequency can be accounted for by these variables combined. Neither grade level, educational level, nor communication training significantly predicted communication frequency.

A two-step regression was then used to examine the influence of the two psychological variables of relationship beliefs and conversation competence in Step 1, and the four professional education variables of teacher grade level, teacher educational level, school contact mandate, and communication training were added in Step 2, onto the dependent variable of communication frequency. As shown in Table 6, relationship beliefs and

conversation competence predicted communication frequency in Step 1. The addition of school contact mandate to the model in Step 2, resulted in a significant increment to R^2 : $F(2,200) = 12.46$, $MSE = 5.28$, $p < 0.001$. The effect of relationship beliefs was reduced while the effect of conversation competence increased although both stayed statistically significant.

Measurement Models

Using the AMOS 25 program, goodness of fit was assessed according to several criteria, Chi-square, RMSEA, CFI, and SRMR. The measurement model had sufficient goodness of fit to the data, $\chi^2(243) = 238.651$, $SRMR = 0.0624$, $RMSEA = 0.050$ (95% CI .038-.061), $CFI = 0.927$. This indicates good construct validity, which implies the model is adequately measuring the construct relationships.

Confirmatory Factor Analysis (CFA) was conducted on the three latent variables in a single model (relationship beliefs, conversation competence, communication frequency). Individual factor loadings were statistically significant with $p = 0.000$. Factor loadings ranged from .47 to .79, with the minimum acceptable value being .50 and the ideal $> .71$ (Hair et al., 2010). Conversation competence contained the three lowest loadings just below .50. The Average Variance Extract (AVE) was calculated for each construct: relationship beliefs = .39, conversation competence = .25, communication frequency = .46. Since the standardized loadings are in the low range of acceptable values and AVEs are slightly less than .50, and given that the construct reliabilities, SPSS Cronbach's alpha values were in the almost adequate to great range this CFA, they did not meet the criteria for convergent validity and shared common variance. This implies that the items are explained more by the error than the latent variable.

The average AVE for each pair of constructs is greater than their squared correlation coefficient: relationship beliefs-communication frequency = .4214 with $R^2 = .2704$, relationship beliefs-conversation competence = .3189 with $R^2 = .1444$, and communication frequency-conversation competence = .3546 with $R^2 = .1225$. This provides evidence of discriminant validity, which describes how different the measures are from each other (Fornell & Larcker, 1981).

Structural Model

A single structural model tested the hypothesized conceptual model (Figure 2). Using the latent variables established in the measurement model, regression paths were specified from relationship beliefs and conversation competence to communication frequency. The model included the covariates of teacher grade level, teacher educational level, school contact mandate, and additional communication training as well as demographics at the subgroup level rather than dichotomous groupings (gender, years of experience, subject, and US region), which were controlled for by loading onto the relationship beliefs, conversation competence, and communication frequency variables. The proposed structural model had sufficient goodness of fit to the data, $\chi^2(243) = 237.676$, SRMR = 0.0623, RMSEA = 0.050 (95% CI .038-.062), CFI = 0.927, TLI = 0.907, indicating good construct validity.

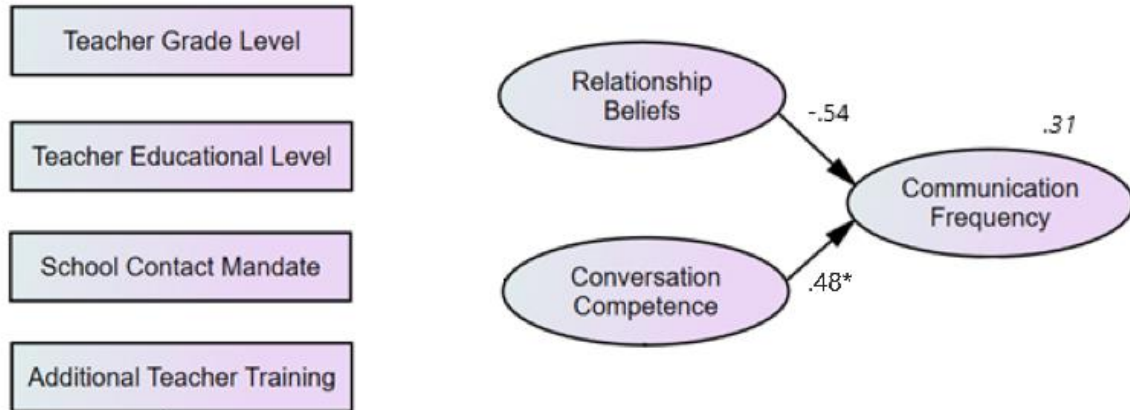


Figure 2. Structural model of relationship between relationship beliefs, conversation competence, and communication frequency. Significant paths at $p < .05$ are indicated with star (*). The coefficient of determination (R^2) is located at the right corner of the exogenous variable in italics.

Only conversation competence positively predicted communication frequency with significance. Relationship beliefs were not a significant predictor of communication frequency, having $p > .05$. This model explains 31% of the variance in communication frequency.

The structural model was also analyzed for specific groups, many of which had nonsignificant relationships with the model variables, yet some were significant and can be found in Table 7. Most notably, there were significant gender differences, suggesting potential moderation, which was not investigated in this study. Both teachers who had only a parent teacher conference contact mandate and those who received communications training

in teacher education programs had significant correlations for both relationship beliefs and conversation competence. No significant correlations were found for subject or US region.

Multigroup invariance tests were completed for gender, years of experience, teacher grade level, teacher educational level, school contact mandate, and additional teacher training when communicating with parents. For each group the test for metric invariance showed nonsignificant change to χ^2 , degrees of freedom, and CFI, and it was concluded that communication frequency was being similarly measured across all groups. In addition to this each group was tested for structural invariance, again all groups had nonsignificant change in χ^2 , degrees of freedom, and CFI, so it was concluded that communication frequency was similarly correlated across all groups.

In a late effort to better understand the relationship between the latent variables an additional structural model was tested (Figure 3). It is very similar to the prior model and has the same goodness of fit. The difference is that the regression paths were specified from relationship beliefs and communication frequency to conversation competence. It is interesting to note the correlations were small, yet equal and opposite, and both statistically significant. This model explains 17% of the variance in conversation competence.

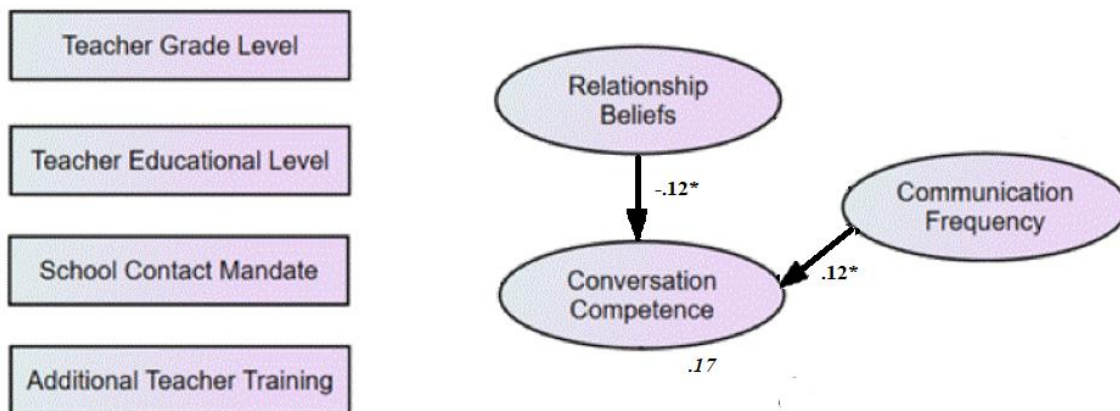


Figure 3. Alternate structural model of the relationship between relationship beliefs, conversation competence, and communication frequency. Significant paths at $p < .05$ are indicated with a star (*). The coefficient of determination (R^2) is located at the right corner of the exogenous variable in italics.

Mediational Models

The following mediation models were not planned in the original analysis proposal (Figure 4). This analysis was conducted as an effort to better understand the results of the structural models and the lack of significance of a direct effect of relationship beliefs on communication frequency. Sobel tests were performed to identify any potential indirect effects (Preacher & Leonardelli, 2001). Significant indirect effects were found for both relationship beliefs ($\beta = -.40, p < .001$) and conversation competence ($\beta = .14, p < .05$) as potential mediators in communication frequency. This indicates mediation by relationship beliefs and conversation competence on communication frequency. Contact mandate did not demonstrate any significant indirect effects.

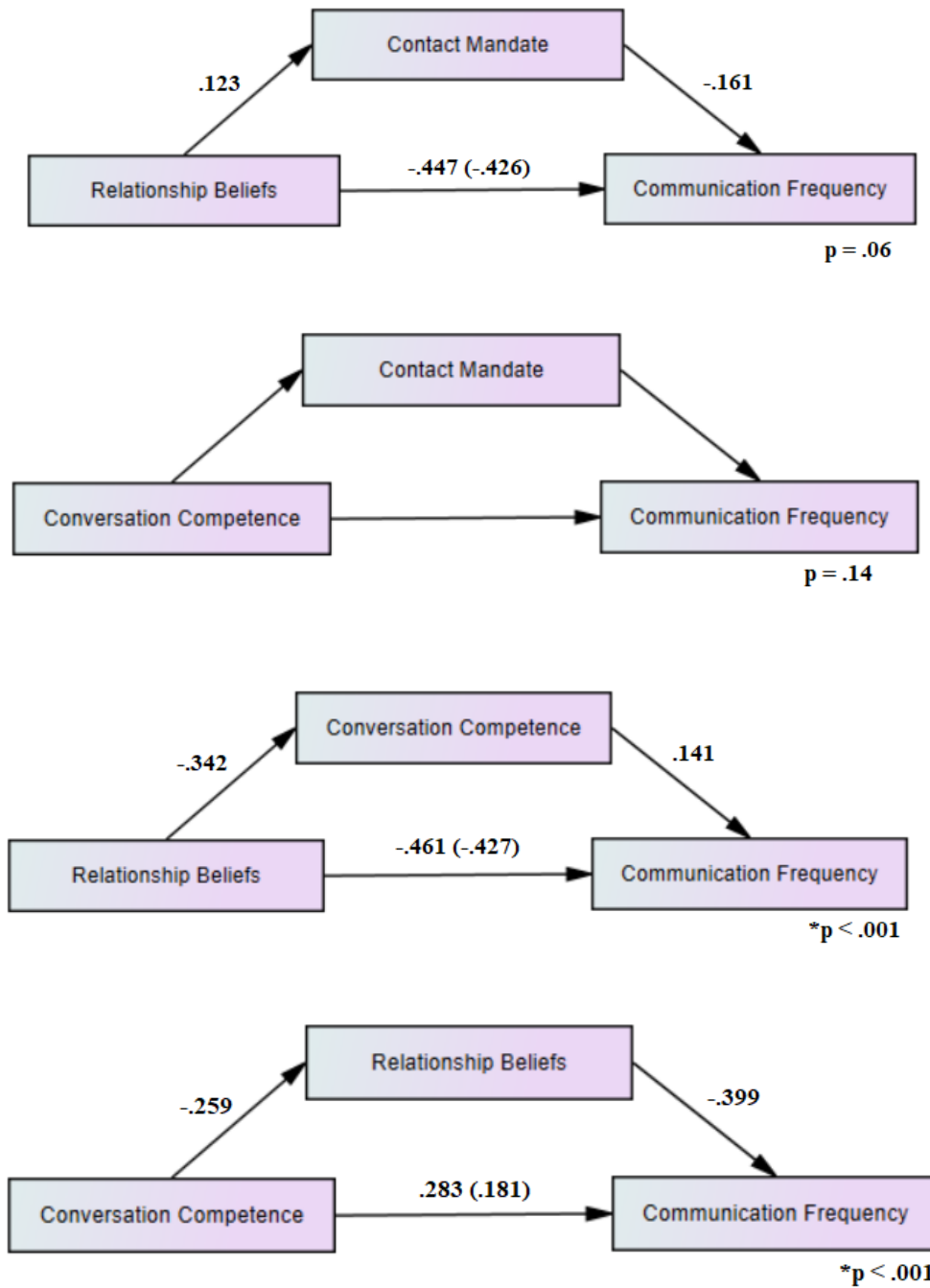


Figure 4. Mediational models of relationship between relationship beliefs, conversation competence, and communication frequency. Significant paths at $p < .001$ are indicated with star (*). The values were obtained by performing the Sobel test.

CHAPTER V:

INTERPRETATIONS, RECOMMENDATIONS, AND CONCLUSIONS

Research on parent-teacher relationships indicates that student academic performance is improved when parents become involved in the schooling of their children (Cattermole & Robinson, 1985; Dauber & Epstein, 1989; Jeynes, 2012; McCoach et al., 2010; Munn, 1985; Powell, 1978; Seitsinger et al., 2008; Stringer & Hourani, 2013). Although there has been a large effort to study parent involvement, there are very few studies that focus on teacher perspectives of parent-teacher communication (Seitsinger et al., 2008). This study was conducted to better understand how teacher beliefs and their perceptions of parent-teacher communication impact their communication frequency with parents. This was a national study, sampling teachers across the United States. The research questions were: 1) if teacher beliefs about parent-teacher relationships are correlated with their communication frequency?, 2) if teacher relationship beliefs and their own perceived conversation competence correlate with each other?, and 3) if the teachers' own perceived conversation competence correlated with their communication frequency?

When correlations between the variables were analyzed, relationship beliefs had a significant medium negative correlation with communication frequency. This suggests that teachers who hold more negative relationship beliefs reached out to parents more frequently than teachers who held more positive views of parent-teacher relationships. This finding did not support the hypothesis that teachers who perceive stronger relationships with parents will have more frequent contact with parents. It is also not in alignment with the existing literature, which suggests that teachers who had stronger relationship beliefs would have

more frequent contact with parents (Lau & Ng, 2019; Seitsinger, Felner, Brand, & Burns, 2008).

In addition to this, relationship beliefs had a significant small negative correlation with conversation competence suggesting that teachers who had less favorable relationship beliefs had higher perceived conversation competence. This finding was not in alignment with the hypothesis that teachers who perceive stronger relationships with parents will have a higher degree of conversations competence with parents. It is also not in alignment with the literature, which suggests teachers with stronger relationships with parents had a higher degree of conversation competence (Denessen et al., 2009).

Conversation competence was found to have a significant small positive correlation with communication frequency. This finding suggests that teachers who have higher perceived conversation competence communicated with parents more frequently and is in alignment with the hypothesis that teachers with higher perceived conversation competence will have increased parent contact frequency. This also finding supports the literature, which suggests that teachers with higher perceived conversation competence will have increased parent contact frequency (Westergard, 2013). Conversation competence also held a significant small positive correlation with teacher education level.

A few additional significant correlations were also discovered. For teachers in schools that had a parent contact mandate, there was a significant small negative correlation with communication frequency, which may suggest that teachers who were required to contact parents reached out to parents less frequently than teachers who were not required to contact parents. The presence of a school contact mandate had a significant small positive correlation with communication training.

Although regression analysis becomes redundant when used in combination with SEM techniques, it was useful in that it allowed the investigator to measure how the addition and ordering of different variables specifically impacted communication frequency. During this analysis it was revealed that teacher relationship beliefs were a medium negative predictor of communication frequency. Conversation competence was a small positive predictor of communication frequency. School contact mandate was a small negative predictor of communication frequency.

The hypothesized structural model, which specifically measured the impact of relationship beliefs and conversation competence on communication frequency was tested using SEM. In this analysis, conversation competence was found to be a significant small positive predictor for communication frequency. Unexpectedly, relationship beliefs were not found to be significant predictor of communication frequency. When the model was broken down into subgroup data, relationship beliefs were included as a significant predictor for specific populations in addition to conversation competence, but a negative association was indicated. These SEM findings support the theory of overlapping spheres of influence in that these results help explain how educators, families, and communities connect to support student learning and success (Epstein & Sanders, 2006). The theoretical implications of this study are that the theory of overlapping spheres of influence is suitable for explaining how teacher relationship beliefs and teacher conversation competence may impact the frequency in which teachers contact parents, which in turn could impact student achievement.

The disappearance of teacher relationship beliefs as a predictor of communication frequency during SEM was unanticipated because relationship beliefs had appeared as a significant negative correlation during early analysis and was identified as a predictor

variable during regression. One potential reason for this disappearance could be that with SEM all of the variables within the model are analyzed simultaneously, rather than individually as in regression. This raised questions within the researcher about the viability of other structural models and the possibility of mediation. To better understand this phenomenon, an alternative structural model was tested that focused on how relationship beliefs and communication frequency related to conversation competence. In this alternative structural model, both relationship beliefs and communication frequency were found to be significant small predictors, although they were equal in magnitude and opposite in direction, negative and positive respectively.

Motivated by the SEM results, four separate mediation models were proposed during analysis that included the variables of relationship beliefs, conversation competence, contact mandate, and communication frequency. Sobel tests were used to determine the existence of potential mediators. Both relationship beliefs and conversation competence were each suggested to be significant mediators of the other when measuring indirect effects on communication frequency.

Limitations and Future Directions

There are several limitations to this study, the first is that the measurement model did not meet the requirements for convergent validity. This was primarily due to issues with low factor loadings (AVE calculations). The conversation competence measure had particularly low AVE and Cronbach's alpha values, which could potentially be attributed to unclear Likert scale values. The second limitation was that the participant population was obtained from MTURK, which is a paid survey site. It is possible that the persons who took the survey only claim to be teachers and have little investment in education, this could have

impacted the outcomes of this study. The study was also conducted on a completely random national sample, and there is no link to regional or district reform efforts to validate participant responses.

Despite these limitations, the results of this study are significant in that they provide a solid starting point for further investigations. This study contributes to the body of research on the theory of overlapping spheres of influence, specifically in the area of parent-teacher communication. The strong link between parent-teacher communication and academic performance in the literature warrants future exploration in this area. The major finding of this study highlights the importance of teacher conversation competence in parent-teacher communications and is in alignment with previous studies (Westergard, 2013). By better understanding that teacher conversation competence plays a significant role in increasing the frequency of parent-teacher communications, curriculum can be developed for teacher education programs or for professional development to enhance the communication skills of teachers. The other significant correlations and predictive relationships indicate that more research is needed to fully unpack the complex connections between relationship beliefs, conversation competence, and communication frequency. Implications of this study could be to inform school and district level decision makers on best practice efforts when helping teachers bridge the gap between home and school.

Future directions for research would include improving the survey measures for conversation competence and relationship beliefs and retesting the proposed structural model on a more homogeneous and better identified population of teachers. Relationship beliefs could be unpacked further by better understanding how those beliefs impact communication frequency either directly or indirectly by mediating conversation competence. The

relationship between communication training, conversation competence, and communication frequency could also be explored further by utilizing a communication training scale and using a similar structural model. The relationship between mandating teachers to contact parents and communication frequency could also be better understood as an effort to align research with school improvement practices.

Conclusions

Despite these limitations, this study was successful in that it tested the correlations and predictive relationships between teacher relationship beliefs, teacher conversation competence, and teacher communication frequency with parents. Relationship beliefs had a significant medium negative correlation with communication frequency and a significant small negative correlation with conversation competence. Conversation competence was found to have a significant small positive correlation with communication frequency. Conversation competence was found to be a significant small positive predictor for communication frequency. Relationship beliefs appeared as a medium negative predictor of communication frequency during multiple regression, yet disappeared when SEM was used. In addition to this, the covariate of teacher contact mandate was found to be a small negative predictor of communication frequency. These findings may indicate that a more complex relationship exists between the variables than originally proposed.

Cattermole and Robinson (1985) stated that if schools want to communicate more effectively with parents and improve student achievement, the school should work at improving the traditional modes of communication that rely on direct, personal contact between educators and parents. In line with this ideology, several educational practitioners/researchers have combined their lifetime of experience working in schools with

parent involvement research to form practical guidebooks for K-12 education leadership and teachers that emphasize the importance of parent-teacher communication and relationships (Constantino, 2003; Hornby, 2011; Lawrence-Lightfoot, 2003; Mapp et al., 2017; Seeberg, 2021). This study adds to the academic literature and further informs teacher education practice by attempting to better understand some of the factors that potentially impact teachers' decision making when it comes to contacting parents.

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APPENDIX A

Table 1

Respondent Characteristics

	Count	Percent
Teaching Level		
High School Teacher (9 – 12)	84	35.0
Middle School Teacher (6 – 8)	79	32.9
Elementary Teacher (K – 5)	77	32.1
US Region*		
West	75	31.0
Midwest	56	23.1
Northeast	43	17.8
Southwest	34	14.0
Southeast	34	14.0
Type of School		
Urban- Traditional Public	122	50.6
Rural- Traditional Public	40	16.6
Charter School	20	8.3
Magnet School	18	7.5
High Risk/High Need/Alternative- Traditional Public	16	6.6
Parochial/Religious- Private School	12	5.0
Boarding- Private School	8	3.3
Military- Private School	5	2.1
Teaching Experience		
1 – 5 years	84	35.1
6 -10 years	69	28.9
11 – 15 years	53	22.2
16 – 20 years	21	8.8
21 – 25 years	7	2.9
26 + years	5	2.1
Disciplinary Area		
English	134	56.3
Math	39	16.4
Elementary Education	31	13.0
Science	23	9.7
Art	6	2.5
Foreign Language	4	1.7
Vocational	1	0.4
Gender Identity		
Man	141	59.7
Woman	94	39.8
LGTBQ+	1	0.4
Racial/Ethnic Identity		
Asian	45	18.8
Black or African American	20	8.3
Hispanic or Latino	13	5.4
Native American or Alaska Native	10	4.2
Native Hawaiian or other Pacific Islander	0	0
White or Caucasian	240	63.3
Other or Mixed Race	0	0
Level of Education		
Bachelors Degree	132	55.0
Masters Degree	103	42.9
Doctoral Degree	5	2.1

*individual state data available upon request

Table 2

Reliabilities and Descriptive Statistics.

Measure	range	<i>M</i> (<i>SD</i>)	α
<i>Relationship Beliefs</i>	1 - 5	2.66(.59)	0.81
<i>Conversation Competence</i>	1 - 4	2.94(.43)	0.62
<i>Communication Frequency</i>	1 - 5	3.35(.73)	0.85

* $p < 0.01$.

Table 3

Exploratory factor analysis on individual scales: relationship beliefs, conversation competence, and communication frequency.

Item	Factor Loadings		
RelationshipBeliefs_1	.60		
RelationshipBeliefs_2	.62		
RelationshipBeliefs_3	.65		
RelationshipBeliefs_4	.75		
RelationshipBeliefs_5	.51		
RelationshipBeliefs_6	.61		
RelationshipBeliefs_7	.56		
ConversationCompetence_1		.47	
ConversationCompetence_2		.50	
ConversationCompetence_3		.53	
ConversationCompetence_4		.47	
ConversationCompetence_5		.53	
CommunicationFrequency_1			.69
CommunicationFrequency_2			.60
CommunicationFrequency_3			.64
CommunicationFrequency_4			.65
CommunicationFrequency_5			.72
CommunicationFrequency_6			.63
CommunicationFrequency_7			.80
Eigen	3.30	2.00	3.73
% Var	38.57	25.13	45.69

Table 4*Correlations between latent variables and covariates.*

	1	2	3	4	5	6
1. Relationship Beliefs						
2. Conversation Competence	-.26*					
3. Communication Frequency	-.45*	.27*				
4. School Contact Mandate	.12	.10	-.20*			
5. Communication Training	.05	.00	.09	.30*		
6. Education Level	-.13	.20*	.08	.00	-.04	

* p < 0.01

Table 5*Relationship beliefs and conversation competence as predictors of communication frequency.*

Predictors	Communication Frequency		
	<i>B</i>	<i>SE</i>	<i>β</i>
Relationship Beliefs	-.51	.09	-.37*
Conversation Competence	.54	.15	.23*
Teacher Grade Level	-.01	.42	-.00
Teacher Educational Level	-.29	.65	-.03
School Contact Mandate	-2.10	.63	-.21*
Communication Training	.22	.32	-.04
<i>R</i> ²		.28*	

* $p \leq 0.001$

Table 6

Relationship beliefs and conversation competence as predictors of communication frequency.

Predictors	Communication Frequency	
	Step 1 β	Step 2 β
Relationship Beliefs	-.41**	-.35**
Conversation Competence	.17*	.22**
Teacher Grade Level		.02
Teacher Educational Level		-.03
School Contact Mandate		-.20*
Communication Training		.01
<i>Variance explained</i>		
R	.49	.53
R-square	.24**	.28**

* $p < 0.01$ ** $p \leq 0.001$

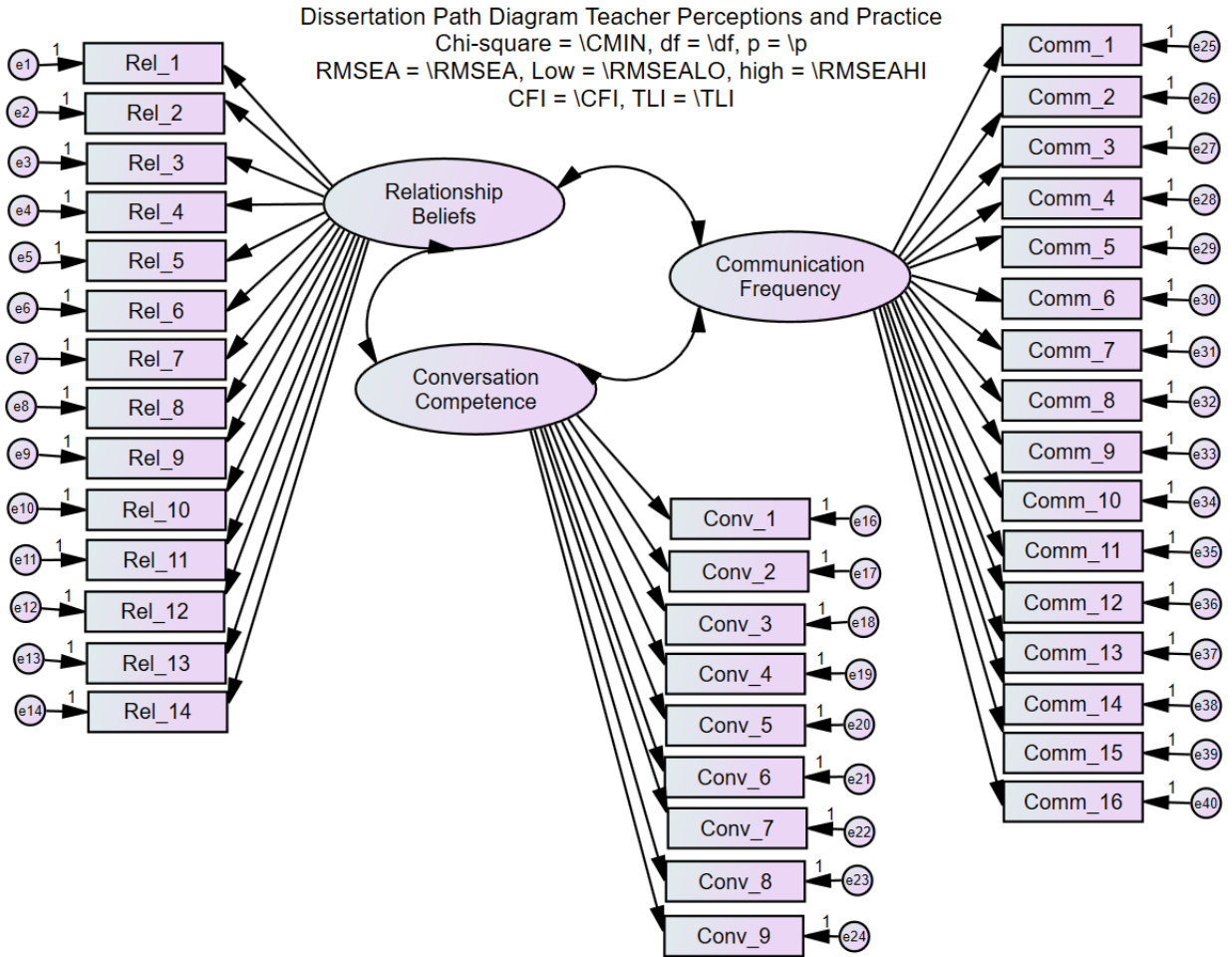
Table 7*SEM path coefficients from demographics and covariates.*

	Relationship Beliefs	Conversation Competence
Gender		
Man	-.40***	.27
Woman	-.75**	1.02
Grade Level		
Elementary	-.58	.13
Middle School	-.51*	.47
High School	-.52**	.55
Teacher Educational Level		
Bachelors Degree	-.48	.31
Masters Degree	-.48	.31
Doctoral Degree	na	na
School Contact Mandate		
None	na	na
Parent Teacher Conf Only	-.33 ⁺	.73**
More than Parent Teacher Conf	na	na
Communication Training		
None	na	na
Teacher Education	-.23*	.96**
Masters Level	na	na
School Prof Development	na	na
Independent Prof Development	na	na
More than One Type	na	na

⁺p = .06 * p < 0.05 ** p < 0.01 *** p ≤ 0.001 na: poor fit or model would not run

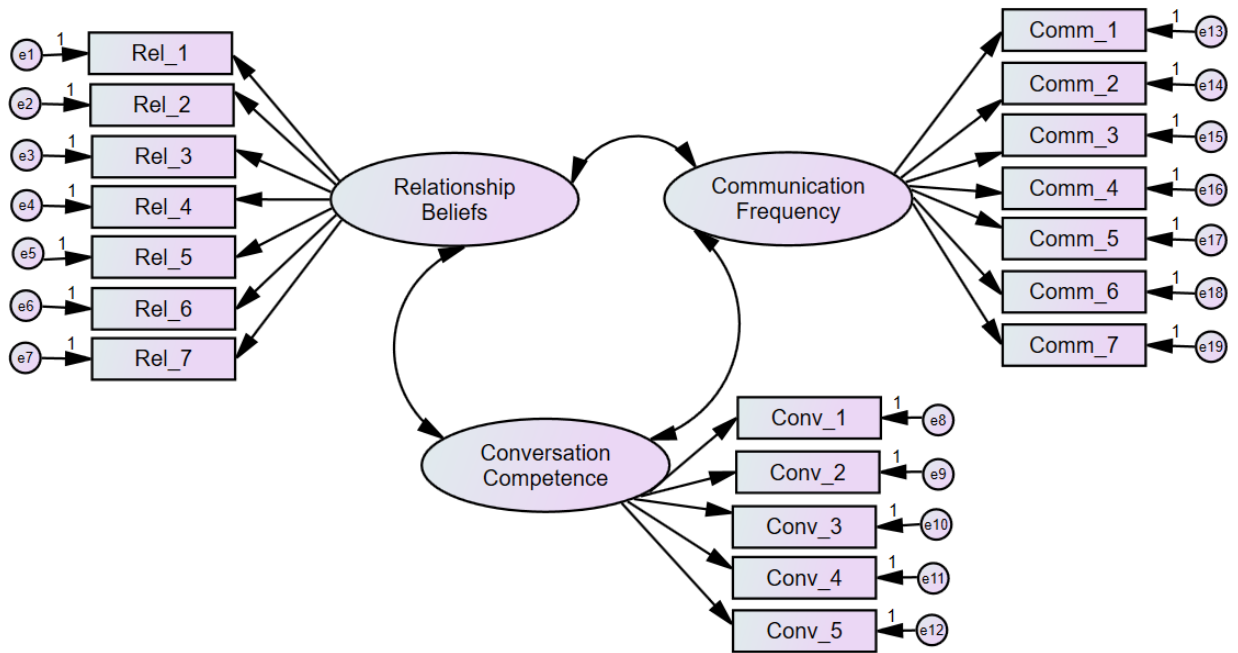
APPENDIX B:

Teacher Perceptions and Practice Measurement Model 1:



Teacher Perceptions and Practice Measurement Model 2:

Dissertation Path Diagram Teacher Perceptions and Practice
Chi-square = \CMIN, df = \df, p = \p
RMSEA = \RMSEA, Low = \RMSEALO, high = \RMSEAH
CFI = \CFI, TLI = \TLI



APPENDIX C:

Teacher Communication Survey Constructs

Teacher Relationship Beliefs Measure

Directions: Please answer the following questions about yourself.

How would you rate your global/overall relationship with parents? (1 = poor, 2 = somewhat poor, 3 = ok, 4 = good, 5 = excellent)

Item	Construct
(1) We trust each other.	PTR- FAS
(2) It is difficult for us to work together.	PTR-(R)- FAS
(3) Communication between us is difficult.	PTR-(R)-FAS
(4) I respect parents.	PTR-FAS
(5) Parents respect me.	PTR-FAS
(6) We have different views of right and wrong.	PTR-(R)-FAS
(7) When there is a problem with the student the parents are all talk and no action.	PTR-(R)-DAP
(8) The parents keep their promises to me.	PTR-DAP
(9) When there is a behavior problem, I have to solve it without help from the parents.	PTR-(R)-DAP
(10) When things aren't going well it takes too long to work them out.	PTR-(R)-DAP
(11) We understand each other.	PTR-SEB
(12) We see the student differently.	PTR-(R)-SEB
(13) I expect more from the parent than I get.	PTR-(R)-SEB
(14) We have similar expectations of students.	PTR-SEB

Adapted from Parent-Teacher Relationship Scale (PTRS-II) (Vickers and Minke, 1995)

Key: PTR = parent-teacher relationship, R = reverse coded item, FAS = feelings of affiliation and support, DAP = dependability and availability of both parties, SEB = shared expectations/beliefs about child and each other

Teacher Conversation Competence Measure

Directions: Please answer the following questions about yourself.

Please rate the extent to which the following statements apply to you when communicating with parents? (1 = does not apply, 2 = applies somewhat, 3 = applies, 4 = fully applies).

Item	Construct
(1) I can accept constructive criticism from parents.	CC-IRF
(2) I find it difficult not to take critique voiced by parents personally.	CC-(R)-IRF
(3) I can remain objective, even in difficult conversational situations.	CC-IRF
(4) In conversations with parents, I involve parents in the creation of goals.	CC-CSC
(5) When talking to parents, I can involve them in finding solutions.	CC-CSC
(6) When communicating with parents, I structure parents' statements, summarize them and paraphrase them in my own words.	CC-CSC
(7) I write down solutions that I have developed with parents at the end of the conversation.	CC-PSF
(8) At the end of conversations with parents, I make outcomes clear.	CC-PSF
(9) I repeat important statements of parents in my own words so I can be sure to have understood them correctly.	CC-PSF

Adapted from the teacher perceived Conversation Competence Scale (Gartmeier, Gebhardt, and Dotger, 2016).

Key: CC = communication competence, R = reverse coded, IRF = interpersonal relationship facet, CSC = teacher competence facet/structuring the conversation, PSF = problem solving facet.

Teacher Communication Frequency Measure

Directions: Please answer the following questions about yourself.

Rate the frequency of the following. In an average month, I communicated with my students parents about... (Using the rating scale 1 = not at all, 2 = once or twice a month, 3 = about once a week, 4 = several times a week, 5 = about everyday).

Item	Construct
(1) ... a students grades in class.	PTC-AP
(2) ... why the student has a missing assignment.	PTC-AP
(3) ... how a student can improve his/her grade.	PTC-AP
(4) ... why a student received the grade he/she did.	PTC-AP
(5) ... why a student was not completing assignments.	PTC-AP
(6) ... to explain more about homework assignments.	PTC-AP
(7) ... to answer a question a parent had about an assignment.	PTC-AP
(8) ... to discuss solutions to address a students behavior in class.	PTC-CB
(9) ... a student taking back to me.	PTC-CB
(10) ... a student goofing off in class.	PTC-CB
(11) ... a students ability to make/maintain friendships with peers.	PTC-P
(12) ... how a student was not bringing materials to class.	PTC-P
(13) ... a student being picked on by his/her classmate.	PTC-HPI
(14) ... a major classroom behavioral incident (fight, racial slur)	PTC-HPI
(15) ... a temporary health issue that a student is experiencing.	PTC-H
(16) ... a major physical health issue that a student is experiencing.	PTC-H

Adapted from Parental Academic Support Scale (PASS) adapted for teachers (Thompson and Mazer, 2012).

Key: PTC = parent teacher communication, AP = academic performance, CB = classroom behavior, P = preparation, HPI = hostile peer interaction, H = health.

APPENDIX D:

Qualtrics Survey:



**UNIVERSITY OF NORTH DAKOTA
Institutional Review Board
Informed Consent Statement**

Title of Project: Teacher Perceptions of Parent-Teacher Communications and Practice.

Principal Investigator: Misty Tomchuk, 701-799-3331, misty.tomchuk@und.edu

Co-Investigator(s): Virginia Clinton, Ph.D., 701-777-5793, virginia.clinton@und.edu

Purpose of the Study:

The purpose of this study is to examine teacher perceptions and habits of communication between teachers and parents.

Procedures to be followed:

You will be asked to answer survey questions about your perceptions of communications between teachers and parents.

Risks:

There are no risks in participating in this research beyond those experienced in everyday life.

Benefits:

This research might provide a better understanding of how teachers can improve communications between teachers and parents.

Duration:

It will take about 15 minutes in total.

Statement of Confidentiality:

The questionnaire does not ask for any information that would identify who the responses belong to. Therefore, your responses are recorded anonymously. If this research is published, no information that would identify you will be included since your name is in no way linked to your responses.

Right to Ask Questions:

The researchers conducting this study are Misty Tomchuk and Dr. Virginia Clinton. You may ask any questions you have now. If you later have questions, concerns, or complaints about the research please contact Misty Tomchuk at 701-799-3331 during the day.

If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at (701) 777-4279. You may also call this number with problems, complaints, or concerns about the research. Please call this number if you cannot reach research staff, or you wish to talk with someone who is an informed individual who is independent of the research team.

General information about being a research subject can be found on the Institutional Review Board website "Information for Research Participants" <http://und.edu/research/resources/human-subjects/research-participants.cfm>

Voluntary Participation:

You do not have to participate in this research. You can stop your participation at any time. You may refuse to participate or choose to discontinue participation at any time without losing any benefits to which you are otherwise entitled.

You do not have to answer any questions you do not want to answer.

You must be 18 years of age older to consent to participate in this research study.

Completion and return of the survey implies that you have read the information in this form and consent to participate in the research.

Please keep this form for your records or future reference.

- Agree
- Disagree



Please answer the following questions about yourself.

Are you currently or in the past were you a classroom teacher in a K-12 setting in the United States?

- Yes
- No



How would you rate your global/overall relationship with the parents? (1 = poor, 2 = somewhat poor, 3 = ok, 4 = good, 5 = excellent)

	Poor	Somewhat Poor	Ok	Good	Excellent
We trust each other.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is difficult for us to work together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication is difficult between us.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I respect parents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parents respect me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We have different views of right and wrong.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When there is a problem with the student the parents are all talk and no action.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The parents keep their promises to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When there is a behavior problem, I have to solve it without help from the parents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When things aren't going well it takes too long to work them out.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We understand each other.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We see the student differently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I expect more from the parent than I get.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We have similar expectations of students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Please rate the extent to which the following statements apply to you when communicating with parents? (1 = does not apply, 2 = applies somewhat, 3 = applies, 4 = fully applies)

	Does Not Apply	Applies Somewhat	Applies	Fully Applies
I can accept constructive criticism from parents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find it difficult not to take critique voiced by parents personally.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can remain objective, even in difficult conversational situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In conversations with parents, I can involve parents in the creation of goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When talking to parents, I can involve them in finding solutions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When communicating with parents, I structure parents' statements, summarize them and paraphrase them in my own words.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I write down solutions that I have developed with parents at the end of the conversation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At the end of conversations with parents, I make outcomes clear.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I repeat important statements of parents in my own words so I can be sure to have understood them correctly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Rate the frequency of the following. In an average month, I communicated with my students parents about... (Using the rating scale 1 = not at all, 2 = once or twice a month, 3 = about once a week, 4 = several times a week, 5 = about everyday)

	Not at All	Once or Twice a Month	About Once a Week	Several Times a Week	About Everyday
... a students grades in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... why the student has a missing assignment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... how a student can improve his/her grade.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... why a student received the grade he/she did.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... why a student was not completing assignments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to explain more about homework assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to answer a question a parent had about an assignment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to discuss solutions to address a students behavior in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... a student talking back to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... a student goofing off in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... a students ability to make/maintain friendships with peers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... how a student was not bringing materials to class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... a student being picked on by his/her classmates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... a major classroom behavioral incident (fight, racial slur).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... a temporary health issue that a student is experiencing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... a major physical health issue that a student is experiencing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Are you currently an active teacher/educator?

- Yes
- No

If you are NOT currently an active teacher/educator, how many years have you been retired? (Active teachers, indicate 0)

- 0 (still an active teacher/educator)
- 1 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- 26 +

In what level do/did you spend the majority of your time teaching?

- Elementary Teacher (K-5)
- Middle School Teacher (6-8)
- High School Teacher (9-12)

What state within the United States best describes the location in which you spent the majority of your time as a teacher?

- Did not teach in the United States
- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Florida

- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee

- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming

What type of school best describes the where you have done the majority of your teaching?

- Magnet School
- Charter School
- Urban - Traditional Public School
- Rural - Traditional Public School
- High Risk/High Need?Alternative - Traditional Public School
- Parochial/Religious - Private School
- Military - Private School
- Boarding - Private School

Have you ever been **required** to contact parents by your school or district?

- No
- Yes, but only for parent-teacher conferences.
- Yes, at parent teacher conferences and another requirement(s).

Have you ever received specific training on how to effectively communicate with parents?

- No
- Yes, in teacher education coursework
- Yes, in Masters level coursework
- Yes, in school/district professional development
- Yes, during independent professional development
- Yes, other OR more than one of the options listed above

How many years experience do you have as an educator?

- 1 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- 26 +

What is your primary teaching area?

- Elementary Education
- English
- Math
- Science
- Vocational
- Art
- Foreign Language

What is your gender?

- Male
- Female
- LGBTQ+

What is your racial/ethnic background?

- White or Caucasian (Non- Hispanic)
- Black or African American
- Asian
- Hispanic or Latino
- Native American or Alaska Native
- Native Hawaiian or other Pacific Islander
- Other or Mixed Race

What is your highest level of education earned to date?

- Bachelors Degree
- Masters Degree
- Doctoral Degree



We thank you for your time spent taking this survey.
Your response has been recorded.