Perspectives of Teachers of Students with Learning Disabilities on Parental Involvement in Jazan, Saudi Arabia: Experience, Obstacles, and Attitudes

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Dedication

I dedicate this work to my family, which includes my father, Ahmed Mufareh Almalki, my mother, Jumah Jaber Almalki, my sisters, Ahlam, Suad, Ibtisam, and Somaiah, and my brothers, Khaled, Abdullah, and Abdrahman. They have supported me throughout the entirety of my Ph.D. program. Even though we were separated by a large distance, they were always in my thoughts.

Abstract

Parental involvement is an important component in education that is linked to positive outcomes in terms of academic performance and achievement. Much of the literature on parental involvement consists of studies located in the United States, while comparatively few studies pertain to parental involvement in the Gulf Nations, especially in the Kingdom of Saudi Arabia (KSA). To address the current gaps in the literature, the present study sought to investigate the current status of parental involvement, including obstacles to parental involvement and attitudes towards parental involvement and parental empowerment, from the perspectives of teachers in Jazan province, KSA. A comprehensive survey was distributed through the Department of Education in Jazan province to elementary school teachers who work with students with learning disabilities (LD) in the region, and 50 teachers completed the digital survey. Descriptive analysis and inferential statistics were conducted to answer the study research questions. Results suggested that digital communication through apps like WhatsApp represented the most common form of parental involvement experience reported by teachers in this study, whereas in-person and school-based forms of parental involvement represented the least common forms of parental involvement experience reported by these teachers. In addition, teachers rated parent-related obstacles (e.g., parents' limited knowledge of their own parental rights) as being substantially greater impediments to parental involvement compared to school/teacher-related obstacles (e.g., teachers' limited time). In terms of attitudes towards parental involvement and parental empowerment, teachers most strongly agreed with the belief that parental involvement is critical to the academic and behavioral development of children with LD, and parents should be included

in the decision-making process. Implications of these findings, as well as suggestions for future research, are discussed at-length in this study.

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Chapter 1

Introduction

Parental involvement can be defined as "parents' interactions with schools and with their children to promote academic success" (Hill et al., 2004, p. 1491). Parental involvement can take on many forms, such as collaboration with schools to support a healthy learning environment at home, enhancing communication between the school and family, providing opportunities for parents to participate in school activities, and inviting family input in educational decision-making (Epstein, 2001). Specific instances of parental involvement are present when parents help their child with homework, attend school functions, visit their child's classroom, speak as guests, and take on leadership roles in the school (LaRocque et al., 2011). Regardless of which form it takes, parental involvement is an important aspect of children's academic and developmental progress because of its impact on learning and achievement outcomes (Fan & Chen, 2001; Henderson & Mapp, 2002; Sheldon & Epstein, 2005).

Background

Impact of Parental Involvement on Student Performance and Achievement

Findings from the literature tend to overwhelmingly indicate the supportive effects of parental involvement on a variety of positive outcomes for school-aged children (e.g., Fan & Chen, 2001; Henderson & Mapp, 2002; Sheldon & Epstein, 2005). Parental involvement is particularly crucial in the earlier stages of schooling for children (e.g., elementary-level; Jeynes, 2005, 2007), and is significantly associated with improvements in grade retention and performance scores on standardized tests (McCoy & Reynolds, 1999; Topor et al., 2010). Indeed,

parental involvement at the earliest stages of schooling is a significant and reliable predictor of achievement outcomes in high school (Fan & Chen, 2001; Hill & Tyson, 2009). Nevertheless, parental involvement throughout the span of children's primary and secondary schooling tends to provide beneficial effects on salient academic outcomes (Jeynes, 2007).

The impact of parental involvement may be even more relevant in a discussion of students with disabilities and the effectiveness of special education programs. The Individuals with Disabilities Education Act (IDEA; 2004), enacted in the United States (U.S.), provided the first legal impetus for parents to be heavily involved in their child's education in the process of special education placement. For example, parents are argued to provide a key role in the process of designing an appropriate individualized education program (IEP), such as by providing consent for psychoeducational evaluations in response to a referral for special education and contributing to the production of pertinent academic, behavioral, and social-emotional goals. Part of parents' unique offering includes expertise on their child's unique strengths and needs, both of which are central to the process of valid disability identification, educational placement, and IEP design (Wolery, 1989).

Identifying Barriers to Parental Involvement

Despite the strong rationale for increasing parents' involvement in the special education process, as well as the plethora of general education evidence suggesting parental involvement positively impacts the academic outcomes of school-aged children, there are nevertheless substantial barriers undermining parents in the process of becoming involved in their child's education. For example, there may be a lack of understanding or knowledge regarding the special

education process, legal parent rights, or other aspects of the school system (Burke, 2013). If the goal is to increase parental involvement in special education, research is needed to better understand effective methods for doing so at both the school and community level.

Although experimental evidence of parental involvement's effects on students' academic outcomes remains scarce, likely because of the lack of careful control conditions in school systems, it is nevertheless feasible to consider the possible benefits that could be rendered by interventions designed to augment parental involvement. However, the literature thus far has produced mixed results in terms of identifying the effects of school efforts to increase involvement (Ma et al., 2014; Jeynes, 2005, 2007). Although these disparate empirical trends may be due to differences in sampling and statistical methodologies, there is nevertheless a substantial need for further research exploring the factors impacting parental involvement in order to better design school programs that foster greater levels of parental involvement in the future. Otherwise, program developers will be approaching this endeavor while being blind to the actual variables that are relevant to consider.

Parental Involvement in Rural Versus Urban Schools

Another important issue with the current status of research on parental involvement relates to potential differences in the manifestation and impact of parental involvement based on whether a school is located in an urban or rural community setting. Specifically, the majority of the empirical studies on parental involvement solely focus on urban schools, while there is scant research on this topic with respect to rural schools (Crocket et al., 2016; Semke & Sheridan, 2012). A common misconception held by researchers and practitioners alike is to view rural

communities as miniaturized, or condensed, versions of urban societies (Ratcliffe et al., 2016); however, this overly-simplified view falls apart upon examination of the actual cultural and psychosocial characteristics that commonly comprise rural communities.

Because of important differences between urban and rural communities, it is therefore implied that the form and impact of parental involvement may vary depending on which of these two types of settings a school happens to be located in. Nevertheless, there is hardly any research at all that includes an investigation of how parental involvement occurs, the likely barriers that prevent it from occurring, and other related variables in the specific context of rural schools. In order to better understand how parental involvement can be fostered in rural schools, and whether it is likely beneficial to students' academic achievement and performance, there is subsequently a considerable need for further research specifically focusing on rural communities in the investigation of this subject.

Parental Involvement in The Gulf Nations

Because research on the effects of parental involvement in the U.S. provides a promising picture, it is important to consider the potential benefits of parental involvement in schools located in other parts of the world. The Gulf Nations, for example, share several common features with the U.S., and would therefore be a feasible geographical candidate for studying the effects of parental involvement for students in that region (e.g., the implementation of IEP in special education; Alquraini, 2011; Gaad, 2019). Because of salient differences between the Gulf Nations and U.S., direct empirical study of this subject in the former region is necessary in order to identify potential differences in how parental involvement manifests and impacts students.

Although it remains a relatively new area of research, studies in the Gulf Nations seem to indicate a similarly beneficial trend of parental involvement on students' academic performance and achievement (Al Bahri et al., 2020; Al-Mahdi, 2010, 2020). However, there is an even greater gap in the literature pertaining to the Gulf Nations and the impact of parental involvement in rural schools when compared to the same topic of research in the U.S. In fact, there may be no published study empirically exploring the subject of parental involvement in any of the Gulf Nations at all. Without studies that include schools in rural areas in the Gulf Nations, it is impossible to determine how parental involvement occurs or impacts student outcomes in those regions and whether such phenomena occur similarly as in urban schools in the Gulf Nations.

Key barriers to parental involvement in the Gulf Nations have also been identified in the literature, including several that overlap with research on the U.S. By understanding the variables impacting the likelihood that parents will engage and communicate with schools and their child's education, schools and practitioners are better equipped to design programs that will foster increased parental involvement in the future. However, because of the lack of research focusing on parental involvement in rural schools in the Gulf Nations, it is not clear whether the barriers identified in the literature are equally applicable to schools in rural communities or not. Therefore, in addition to the need for a better understanding of how parental involvement occurs in rural Gulf Nation schools, there is also a substantial need for research exploring potential barriers to parental involvement in these same settings.

One final area of consideration that is worth including in this discussion is the importance of parental involvement for students with disabilities in schools in the Gulf Nations. Because the Kingdom of Saudi Arabia (KSA), in particular, follows a similar model of special education as that posed in the U.S., in that students with disabilities must be identified and provided with appropriate educational services, the importance of parental involvement is likely of equivalent magnitude in KSA. Despite the potential value of parental involvement in special education in KSA, some research indicates parents hold relatively little power or practice in the decision-making process (i.e., they are rarely included; Alobaid, 2018; Alqahtani, 2020). Therefore, research pertaining to parental involvement in KSA should also focus on students with disabilities as an important population warranting further understanding.

Statement of the Problem

Despite the likely importance of parental involvement for students' academic performance and achievement outcomes, there remains several critical gaps in the literature that must be addressed in order to move forward and make progress in this domain of education. One crucial gap pertains to the level of parental involvement currently taking place in schools in KSA, as well as current barriers to parental involvement. This gap is particularly glaring with respect to school settings located in rural regions in KSA. Additionally, there is a substantial need for research exploring this topic with respect to the student population identified as having a disability warranting the provision of specialized educational services. Without empirical investigation of these factors in this region of the world, educators and researchers alike will

continue to flounder in their efforts towards fostering adequate parental involvement in the process of educating children with disabilities in rural schools in KSA.

Significance of the Study

Although parental involvement with special education has been studied in some urban regions of KSA, no research has yet been conducted in Jazan province, a south region of KSA that includes urban and rural areas. Some research has been done in KSA and produced noteworthy findings to help explain parental involvement for students with disabilities from the perspectives of parents and teachers (Alobaid, 2018; Alqahtani, 2020; Alahmari, 2022). However, none of these studies included a comparative analysis of potential differences in parental involvement between schools in rural and urban areas. Therefore, this study will represent the first empirical examination of parental involvement in KSA which specifically assesses the nature of parental involvement and potential barriers to parental involvement in urban and rural schools.

Purpose of the Study

The purpose of this study was to examine the experience of teachers (*special and general education teachers of students with learning disabilities [LD]*) who work with students with Learning Disabilities (LD) with parental involvement, the obstacles preventing parental involvement, and the attitudes of teachers regarding parental involvement and parental empowerment in Jazan province, KSA.

Research Questions

This study sought to answer the following questions:

1. What is the experience of teachers (*teachers of students with learning disabilities and general education teachers*) with parental involvement with parents of students with LD in Jazan province, Saudi Arabia?
2. From the perspective of these teachers, what are the current obstacles preventing parental involvement?
3. What are the attitudes of these teachers toward parental involvement and parental empowerment?

Definitions of Key Terms:

Learning disabilities (LD): According to the Learning Disability Association of America, learning disabilities (LD) are "due to genetic and/or neurobiological factors that alter brain functioning in a manner which affects one or more cognitive processes related to learning. Learning disabilities range in severity and may interfere with the acquisition and development of one or more of the following: oral language (e.g., listening, speaking, understanding); reading (e.g., phonetic knowledge, decoding, reading fluency, word recognition, and comprehension); written language (e.g., spelling, writing fluency, and written expression); and mathematics (e.g., number sense, computation, math fact fluency, and problem solving)"

Urban areas in Jazan province: There is not a specific definition for urban areas in Jazan province, KSA, in the literature; however, for the purpose of this study the urban

area in Jazan province is the city of Jizan, *which is the capital of the province and the only city in it*.

Rural areas in Jazan province: For the purpose of the study, rural areas are defined as the other big and small towns and villages in Jazan province, and these rural areas are Sabya, Abo Arashi, Ahad Almasrah, Farasan island, Al Aridah, and Samtah.

Notes: parental involvement and parental empowerment terms are defined in detail in chapter 2.

Summary

This chapter covers the background and description of the present study, including the statement of problems with the current body of research, the purpose guiding the present study, and important research questions used to structure the methods and procedures for conducting the present research. Although parental involvement has been consistently identified as having a beneficial impact for students in both the U.S. and Gulf Nations, there remains a substantial gap in the literature specifically pertaining to parental involvement in regions that include schools in urban and rural areas in KSA. This includes a lack of empirical work examining potential barriers to parental involvement, as well as research focusing on parental involvement for students with LD. Without adequate scientific knowledge addressing how parental involvement is currently taking place, as well as which factors seem to impact parental involvement, it is unlikely that any progress will be made with regard to augmenting effective parental involvement practices in rural schools in KSA. Therefore, the present study seeks to help address this gap by examining these crucial areas of research.

Chapter 2

Literature Review

Parental involvement entails proactive engagement in a set of behaviors and/or activities for the purposes of promoting student learning and/or academic achievement. Parental involvement has been studied fairly extensively as a factor related to student achievement and performance outcomes in general education, although the precise mechanisms contributing to such outcomes remain uncertain. The following discussion details various definitions of parental involvement; theoretical frameworks related to parental involvement; evidence that parental involvement impacts general and special education student outcomes; the impact of parental involvement across rural and urban U.S. schools; the impact of parental involvement in the Gulf nations; and potential implications and/or suggestions for promoting parental involvement in rural regions of Gulf nation schools based on common barriers identified in the literature.

Defining Parental Involvement

Parental involvement as a concept has been studied for a considerable length of time; the construct itself seems to remain relatively elusive, in the sense that a clear, unanimous consensus has yet to be established regarding its definition. Moreover, the literature commonly contains several terms which seem synonymous with parental involvement, such as parental engagement, parental participation, and family involvement (e.g., Bacon & Causton-Theoharis, 2013; Epstein, 2001; LaRocque et al., 2011; Sheldon & Epstein, 2005). This speaks to the complexity of parental involvement, which can take many forms and may comprise a variety of behaviors (Epstein, 2001; McDonnall et al., 2012). Indeed, some researchers use the term parental

involvement when positing a framework of various practices, rather than a single, linear or unidimensional process (e.g., Epstein, 2001; LaRocque et al., 2011). Given these considerations, it is challenging to provide a single, concise definition of the term.

One definition, provided by the United States Department of Education, states "the participation of parents in regular, two-way, and meaningful communication involving student academic learning and other school activities" (No Child Left Behind Act, 2002, §9101). Dr. Nancy Hill, an experienced scholar on parental involvement, provides a somewhat broader definition consisting of "parents' interactions with schools and with their children to promote academic success" (Hill et al., 2004, p. 1491). Joyce Epstein (2001) also provides several useful examples of parental involvement, including: (a) collaborating with families to support the environment at home; (b) enhancing consistent family-school communication; (c) encouraging family-members to volunteer at school; (d) applying homework as a learning tool outside of school; (e) integrating family input in school-decision making; and (f) building parent-school connections via community collaboration. Extending on these examples, LaRocque and colleagues (2011) also discuss specific instances of "family involvement" (p. 116), which include school volunteering, helping children with homework, attending school functions, classroom visitations, guest speaking, taking on leadership roles in school, and participating in decision-making. Clearly, parental involvement can take place in a variety of ways, and there are many examples of unique as well as overlapping behaviors that seem to be representative, more or less, of this construct.

Given the breadth and complexity surrounding parental involvement in the literature, the definition provided by Hill and colleagues (2004; ***"parents' interactions with schools and with their children to promote academic success"***) seems to provide a sufficient level of specificity while avoiding a level of restrictiveness that could potentially preclude more diverse manifestations of this construct in research and practice. An additional parameter posited by McDonnall and colleagues (2012) may be useful for future research, which specifies whether parental involvement occurs at school (PIS) or at home (PIH). Although this distinction does not seem to be commonly used in the literature, it is included here both to acknowledge its potential utility in research (e.g., delineating potential differences in parental involvement, based on setting) and so PIH/PIS will be referenced later in this discussion. Additionally, the following discussion proceeds with the understanding that parental involvement may occur in a variety of ways, with the common underlying theme consistent with the Hill et al. definition that such interactions between families and schools intend to promote students' academic success.

The Impact of Parental Involvement: Evidence in General Education

Findings from the literature are overwhelmingly in support of the role parental involvement plays in promoting positive academic outcomes for students in general education (Fan & Chen, 2001; Henderson & Mapp, 2002; Sheldon & Epstein, 2005). Particularly in younger age groups (e.g., elementary level), parental participation in children's academic activities positively correlates with salient outcomes, such as reduced grade retention and increased performance metrics (McCoy & Reynolds,1999; Topor et al., 2010). Additionally, parental involvement in early grades consistently predicts higher achievement in later grades,

including high school (Fan & Chen, 2001; Hill & Tyson, 2009; Pomerantz et al., 2007). Despite being beneficial across all age groups, the impact of parental involvement tends to be strongest for early childhood and elementary students (Jeynes, 2005, 2007). Researchers posit some potential explanations for this disparate age effect, such as greater autonomy and independence in adolescence. In essence, this argument suggests adolescents are less tractable to parental influence, and instead prefer to exercise greater self-autonomy, independence, and/or look towards peers for social influence (Jeynes, 2007). Future research testing these hypotheses would help clarify the potential mechanisms contributing to this age differential in the effects of parental involvement.

Although intervention-based research in this domain is by no means conclusive, this trend suggests efforts towards augmenting parental involvement should target parents of early childhood and elementary students for maximizing benefits on achievement (Fan & Chen, 2001; Hill & Tyson, 2009; Pomerantz et al., 2007). Although intervention efforts may focus primarily on younger populations, parental involvement can nevertheless provide benefits in later childhood and adolescence. Indeed, parental involvement has also been shown to correlate positively with achievement measures for high school students (albeit these effects are attenuated relative to elementary-aged students; Jeynes 2005, 2007). Moreover, parental involvement may support positive behaviors for adolescent students, which can indirectly influence academic outcomes (Izzo et al. 1999).

Factors Affecting Parental Involvement

Parental involvement has been associated with desirable outcomes in student achievement, and factors related to such involvement have been studied in extant literature (Halsey, 2005; Sheldon & Epstein, 2005). A common preference expressed by parents is for teachers to provide personalized opportunities to communicate regarding their child's strengths, needs, and progress (Halsey, 2005; Sheldon & Epstein, 2005). Ma et al. (2014) showed that the frequency of school website updates, a form of indirect communication, was positively correlated with higher school-based performance, with daily updates having the strongest effect. However, limitations may be present with the sole use of school-based website updates for communication, as some parents may not have access to the internet (Thompson et al., 2015).

Parents' level of education and income have also been linked to parental involvement (Lee & Bowen, 2006). Lee and Bowen (2006) have reported that parents with higher degrees of education are more likely to attend school meetings and engage with their children regarding school-related issues. However, the results regarding this factor are mixed, as Baeck (2010) found that parents with higher degrees of education are less involved in their children's education due to a lack of time. By contrast, Pena (2000) indicated that parents with lower levels of education are more often involved in schools' activities than those with higher levels of education. Other authors have found that low-income parents tend to exhibit less involvement in their children's education, both in schools and at home, as compared to their counterparts with higher incomes (Delgado-Gaitan, 1991; Davis-Kean, 2005; Roksa & Potter, 2011; Cheadle & Amato, 2011).

Given these findings, more research is needed to understand the differential impact of various factors on parental involvement. For example, substantial limitations are likely present in situations where the sole means of communication with families is school-based website updates (e.g., parents who cannot access the internet to check website updates). However, school-based website updates may be valuable as one part of a multi-component communication repertoire. Moreover, the introduction of smart phones and various communication platforms also provides new opportunities for ingenuity in the approach of teachers and schools for communicating with parents (Thompson et al., 2015). Additionally, while parents' level of education and income have been linked to parental involvement, the current research findings are still mixed, and more research is needed.

Initiation of Parental Involvement

Given the implications of the results discussed previously, some researchers have attempted to understand and conceptualize effective approaches to integrating and/or augmenting parental involvement via programs and interventions. Unfortunately, studies investigating school-based efforts to promote parental involvement (i.e., school initiation), as opposed to parent-initiated involvement, have produced mixed results. For example, a study of over 7000 schools showed a negative relationship between school-initiated parental involvement and school-based academic achievement outcomes (Ma et al., 2014). These results would suggest it is best for initiation to occur by families in the community. In contrast, two meta-analyses by Jeynes (2005, 2007) showed an opposite trend: school programs designed to augment parental involvement showed positive effects on students' academic performance. Such results would

suggest schools can effectively augment parental involvement with programs and interventions. Clearly, more research is needed to understand the specific factors related to school-based initiation processes, subsequent changes in parental involvement, and student achievement outcomes. This would help practitioners design interventions to augment parental involvement that are more likely to be effective.

Parental involvement vs Parental empowerment

Parental empowerment can be defined as "the ability of parents to voice their concerns to school staff, contribute to school decision making through informal and formal channels, and exercise a degree of authority over the direction of their child's education" (Hamlin & Cheng, 2020, p. 646). In terms of distinction between empowerment and involvement, the former tends to be characterized by a greater degree of social influence and impact on key processes in the educational system and has been empirically assessed via self-rating measures of shared decision making, self-efficacy, perceived support on the part of the school for parent participation in school governance, and parent connectedness to the school (Kim & Bryan, 2017). Furthermore, student achievement and other performance-related outcomes have shown positive correlations with these indicators of parental empowerment (e.g., Griffith, 1996; Kim & Bryan, 2017), and schools with higher average student performance tend to foster higher rates of parent leadership opportunities (Leithwood & Mascall, 2008).

Given the seeming value of parental empowerment for potentially contributing to positive student and overall school outcomes, as well as the similarity and/or potential overlap with parental involvement at a conceptual and possibly practical level, inclusion of this construct in

the present study may be worth considering. It is possible, for example, that parental empowerment and parental involvement are positively correlated with each other, and that the former is therefore relevant to consider in a strategic program to augment the latter. Given the potential implications, I decided to include parental empowerment as a dimension to measure in the present study.

A brief history of special education in KSA

Although education was once a service only available to a privileged minority of the citizenry (i.e., those who were born to elite and wealthy parents), KSA has begun to quickly adopt an approach with a close resemblance to the U.S., which emphasizes free and appropriate education (FAPE) for every child. Thus, thousands of schools have been built, and children in all sectors of the society receive schooling that is completely subsidized by the government. Now, management of current and future educational institutions is handled solely by the Ministry of Education, the government body responsible for providing FAPE to youth in the KSA.

Until approximately the 1960s, children with disabilities which undermined learning and education were not enrolled in public schools, but rather remained the sole responsibility of their parents (Salloom, 1995). Change began in 1958, when students with visual impairments received education in specialized institutions (Salloom, 1995), representing the first instance in the KSA of specialized education services specifically for students with disabilities. Four years later, the Department of Special Learning was developed by the Ministry of Education, which focused on the provision of learning and rehabilitative services for students with "blindness, deafness, and mental retardation" (Alquraini, 2011, p. 150). The first institutes specifically dedicated to

students with visual impairments were created in 1964, while those designed for students with deafness and intellectual disability were established in 1972 (Al-Mousa, 1999). These events then led to legislative initiatives to establish educational rights for students with disabilities, as well as standards and improvements to the provision of educational services and training for teachers who work with this student population.

The field of studying and working with students with LD in KSA began in 1992, when the Special Education Department at King Saud University established a teacher training program which offered a sequence of courses pertaining to this subject. Teachers who enrolled in and completed this program would then obtain a bachelor's degree in LD (Sheaha 2004 & Al-hano, 2006). When the first group of teachers with this degree graduated, the main obstacle confronting them was the lack of knowledge in Saudi society about LD as a real phenomenon (Sheaha, 2004 & Al-hano, 2006). These professionals therefore worked diligently with the Ministry of Education to increase awareness of LD as a legitimate condition that some children had, and gain recognition that educating students with LD was concurrent with heightened international interest in the educational needs of schoolchildren with LD (Lemer, 2000 & Al-hano, 2006). As a consequence of this professional movement, the General Secretariat of Special Education (GSSE), a division of the Ministry of Education, created the Department of Learning Disabilities in 1995 for the purpose of administering, creating, and expanding LD programs in elementary schools across KSA (Al Mosa 1999 & Al-hano, 2006). Then, the category of learning disability (LD) as a formal type of disability was first introduced in the KSA educational system in 1996 (Al-hano, 2006).

The first official legal change in favor of individuals with disabilities came from the Legislation of Disability (LoD), which was enacted in 1987. LoD established equal rights for individuals with disabilities, including an imposition of sanctions on those who would violate or discriminate against those with disabilities. Further, the LoD laid the groundwork for the standards used for the assessment and identification of persons with a potential disability, catalyzing the institutional movement towards the enhancement of functioning for individuals with disabilities towards autonomy and independent living. Then, the Disability Code was passed in the KSA in 2000, thus providing people with disabilities free access to a variety of services via public agencies, including medical, psychological, social, rehabilitation, and educational (King Salman Center for Disability Research, 2004).

Further refinement of the legislative body regarding conceptualization of disabilities and provision of educational services for students with disabilities emerged in 2001 with the Regulations of Special Education Programs and Institutes (RSEPI). RSEPI was designed using the Education for all Handicapped Children Act (EHA) and Individuals with Disabilities Education Act (IDEA) in the U.S. as guiding frameworks. The RSEPI clarified the categories of disability for which the provision of special education is guaranteed, introduced the individualized education plan (IEP) as a central component to special education, and delineated the individuals who should participate in planning and providing an IEP. Importantly, it clearly states that parents are an integral part of the development of the individual education plan (IEP) and they should be included in the IEP team.

The Impact of Parental Involvement in Special Education

With regard to special education, parental involvement seems to play a key role in the outcomes of students with disabilities. For example, the Individuals with Disabilities Education Act (IDEA; 2004) in the U.S. provides a legal impetus for parents to become more involved in their child's education following special education placement. Parents play a critical role in the process of designing and approving their child's individualized education program (IEP), such as by providing consent for evaluations and contributing to the development of student goals. Parents also represent a useful source of information in helping special education team members (e.g., special/general education teachers, school psychologists) understand the nature of their child's strengths and needs. Regardless of a child's disability, parents contribute valuable input for identifying how to best create an IEP to meet their child's needs (Wolery, 1989).

Unfortunately, it is argued that lack of understanding and resulting intimidation stemming from the complexity of special education regulation and the eligibility determination process may limit the degree to which parents become actively involved in their child's IEP (Burke, 2013). In the absence of parental input, a student with a disability may be at risk of receiving inappropriate support and services (Fish, 2008). Thus, parental involvement may hold an elevated level of importance in special education compared to general education. The value of the parental role in special education is perhaps underscored by the demand for special education advocates, experts who serve to promote parents' ability to participate in their child's IEP (Goldman, 2020). Although this example may signal the importance of parental involvement in

special education, more direct empirical work is needed to assess potential effects of parental involvement on academic achievement.

Despite the implicit value of parental involvement in special education, surprisingly little research has explored its impact on students with disabilities. McDonnall and colleagues (2012) provided the only empirical study that could be identified investigating the effects of parental involvement on achievement for students with disabilities. In this study, mathematics performance was measured in students with visual impairment (VI) and/or cognitive disabilities and correlated with PIH and PIS. Both PIH and PIS measures were based on the frequency of parents' self-reported behaviors in each respective area of involvement. The results indicated PIS being positively correlated with student achievement, with effects being strongest in elementary and middle school, but not high school. Interestingly, a negative relationship between PIH and achievement was demonstrated, although student aptitude and/or skill may mediate this link. It is plausible that parents who have students with the greatest academic deficits engage in PIH more frequently, thus explaining the negative relationship between PIH and achievement shown in this study. That is to say, parents may be most involved at home with students who demonstrate the greatest need (e.g., cognitive), and this may explain the relationship between PIH, and achievement shown in this study.

The preceding discussion clearly highlights a need for further research investigating the impact of parental involvement, including PIS and PIH, on achievement outcomes for students

with disabilities. Particularly, insights into the specific components and processes of involvement and their influence on achievement for this population would be especially valuable in understanding potential causal pathways. In the absence of empirical evidence, there do appear to be some rational arguments for the role of parents in supporting the achievement of children with disabilities. For example, students with disabilities often experience difficulties with memory-related and/or organizational skills, which increase the likelihood of forgetting assignments, due dates, and struggling to plan in advance for homework completion (McDonnall et al., 2012). For such students, parents can provide external structure and guidance (i.e., PIH) to help with assignment completion outside of the classroom, studying, and test preparation (Bryan & Burstein, 2004). Moreover, parents can provide healthy expectations for their child and encourage skill mastery, knowledge acquisition, and achievement (Fan & Chen, 2001; Jeynes, 2005, 2007).

Overall, the literature on parental involvement in special education is disappointingly lacking. Although some promising evidence has been generated suggesting parents indeed play a beneficial role in promoting achievement in students with disabilities, there is a glaring need for further research with replicated study designs, a wider diversity of samples, and methodological approaches investigating potential causal pathways. Given that IDEA (2004) explicitly underscores the importance of opportunities for parents to participate in their child's IEP, an

empirical understanding of how parental involvement can be optimized should be highly prioritized.

Parental Involvement in Rural and Urban Community Settings

The nature and function of a community can differ substantially depending on its status as urban or rural. From the perspective of EST, a rural versus urban community setting can be thought of as a macrosystem-level factor. Given that the structure and function of the macrosystem thereby influences the nature of smaller systems (e.g., mesosystem; Rosa & Tudge, 2013), this means the impact of parental involvement may also differ depending on whether a community is urban or rural. Despite the potential differential impact of parental involvement across urban and rural settings in the U.S., the literature exploring this area of inquiry remains scarce (Crockett et al., 2016; Semke & Sheridan, 2012). Rural schools represent a sample that is particularly neglected in empirical studies, which means most research conclusions tend to be based on urban settings (Ma et al., 2014). Therefore, insufficiencies in the breadth and depth of empirical findings necessarily limit potential insights and interpretive themes; the following discussion, albeit tentative, may serve as a catalyst for future research and/or practice.

Despite the tendency for rural settings to be described as miniaturized versions of urban communities (i.e., simply shrunken in size and scale; Ratcliffe et al., 2016), researchers would be mistaken to conceptualize the cultural and psychosocial characteristics of rural settings in this way. Instead, rural settings carry unique features which enable the school system to manifest a distinct role in its representation, processes, and the experiences it provides for community

members. For example, rural community members tend to foster closer social relationships, broader social networks, and hold more traditional beliefs and/or values (McIntire et al., 1990). Among these unique qualities, the importance of the school system itself tends to be augmented in its function as a central social, institutional, and economic influence (Schafft, 2016). These distinctions warrant careful consideration when contemplating the role of parental involvement in rural versus urban settings.

Although two separate meta-analyses by Jeynes (2005, 2007) demonstrated the beneficial impact of parental involvement on students' achievement in urban settings, only one study could be identified as having included a comparative sample of urban and rural communities. Specifically, Ma and colleagues (2014) conducted an analysis using a large sample of urban, suburban, and rural schools to investigate the differential impact of involvement-related factors on school achievement between community settings. The results demonstrated parental involvement being positively correlated with better achievement outcomes, but the size of such effects was reduced amongst rural schools. In response, Ma and colleagues (2014) posited a ceiling effect hypothesis as a possible explanation for this discrepancy in effect size between urban and rural schools. Essentially, this hypothesis implies that the positive effect of parental involvement is greater in magnitude for schools that are underperforming, but that such effects are less detectable in well-performing schools. Indeed, the results of this study also showed a larger proportion of urban schools underperforming when compared to rural and suburban schools, which is why a ceiling effect could explain the comparatively large impact of parental involvement in formal settings when compared to the latter settings.

To clarify, the findings of Ma and colleagues (2014) do not necessarily imply that parental involvement cannot be beneficial in rural settings. Indeed, positive effects on school achievement outcomes were readily apparent across urban, suburban, and rural schools. Nevertheless, urban schools may be in greater need of supportive adult influences (e.g., holding high achievement expectations, communicating about activities), and parental involvement represents one source of such support. Future research investigating specific variables associated with the magnitude of parental involvement effect size on student achievement, such as teacher-to-student ratio and school performance level, may provide evidence to test this hypothesis.

Overall, limitations in the extant literature undermine any conclusive statements surrounding the differential impact of parental involvement between urban and rural schools. It is unknown whether significant differences in the impact of parental involvement would be replicated if more studies sampled both rural and urban schools. Such comparative analyses enable more valid conclusions regarding potential differences in the impact of parental involvement. Further research testing the possible ceiling effect of parental involvement in relation to urban and rural schools would be helpful for better understanding this discrepancy. Additionally, research exploring the characteristics of school-based parental involvement efforts (e.g., programs designed to encourage parents to become involved in their child's academic activities) and the efficacy of these factors (e.g., correlating with academic achievement, parents' perceptions of school efforts) is greatly needed to reconcile the mixed results of school-initiated parental involvement discussed previously.

Theoretical Frameworks Pertaining to Parental Involvement

The literature specifies at least four primary theoretical frameworks explaining the impact of parental involvement on students' achievement outcomes in school. These frameworks include social capital theory (Bourdieu, 1986; Coleman, 1988; Lareau, 1987), funds of knowledge theory (Moll et al., 1992), ecological theory (Bronfenbrenner, 1979, 2001; Yamauchi et al., 2017), and overlapping spheres of influence theory (Epstein, 1987, 1995, 2011). Each of these theories are introduced and discussed in the context of parental involvement, including the relative strengths and limitations of each.

Social Capital Theory

Social capital theory, which stems from the work of Bourdieu (1986), Coleman (1988), and Lareau (1987), posits social and cultural capital as being critical attributes affecting the life of the individual. Social capital refers to the social relationships between people and the resources which can be garnered from such relationships. An example of social capital would be having a vast social network of teachers, administrators, and community members who help facilitate parental involvement (Yamauchi et al., 2017). Families represent the core source of social capital in the process of parental involvement leading to improved academic and behavioral outcomes for school-aged students (Ferrara, 2015). The concept of cultural capital, on the other hand, refers to the practical value of culture on some outcome of interest. For example, a school environment that promotes a culture of open communication with parents and invitations to participate in students' academic activities would be an example of cultural capital which facilitates parental involvement (Reay, 2004). These concepts and mechanisms lend social

capital theory considerable credibility in terms of explaining the benefits of parental involvement, such as by demonstrating that the quantity and quality of social relationships predict the influence of parental involvement on students' educational outcomes (Yamauchi et al., 2017).

Despite the advantages of social capital theory, it is important to note this framework has its limitations, as well. For example, this theory focuses solely on the impact of social relationships or cultures on the quality-of-life or functioning of the individual, which is not necessarily sufficient or comprehensive enough to explain the impact of parental involvement on students' achievement and behavior outcomes. Other important factors, such as family demographic and socioeconomic background, need to be considered as relevant in terms of how parental involvement will impact the subsequent functioning and achievement of students.

Funds of Knowledge

The second major theoretical model described in the literature pertaining to parental involvement is termed funds of knowledge (Yamauchi et al., 2017). Briefly put, funds of knowledge refers to those factors influencing the child's current functioning, including developmental and household environment (e.g., educational materials and enrichment opportunities), socioeconomic status, culture, and religious upbringing. Each of these fundamental developmental components represent key sources of knowledge about the child which can be used to better support the child's learning and achievement through parental involvement at school and home (Szech, 2021). This framework essentially encourages educators to perceive and conceptualize families as representing critical sources of knowledge

which can facilitate parental involvement. Accessing parents and other relatives as wellsprings of critical information is particularly important when the family's background differs from the educators of a particular student (Moll et al., 1992). This framework also acknowledges the holistic nature of students' lives, such as time spent in environments other than the classroom specifically (Yamauchi et al., 2017). Given these elements, funds of knowledge theory provides a useful perspective for understanding the role of families in the process of facilitating parental involvement more effectively towards enhancing students' academic achievement and behavioral outcomes.

Although funds of knowledge represent a helpful framework by acknowledging the value of familial input in the process of parental involvement, several notable limitations exist. One of the more practical limitations of this theory can be described as the potential risk for educators to misunderstand "funds of knowledge" as a concept. Additionally, there does not appear to be sufficient explanation in the literature surrounding how different sources of knowledge interact with each other, and how this interaction might be implicated in practice (Yamauchi et al., 2017). There also appears to be insufficient explanation of what constitutes knowledge and how knowledge itself may take on different forms or be communicated through different mediums (e.g., verbal, mathematical, musical; source). Lastly, although knowledge is certainly an important component of parental involvement, there does not appear to be a thorough discussion in the literature pertaining to funds of knowledge theory on the topic of communication and understanding, especially in the context of interpersonal interactions (source). Each of these limitations seem to undermine funds of knowledge theory as a feasible primary framework for

conceptualizing and explaining parental involvement as a process enhancing students' academic and behavioral outcomes.

Overlapping Spheres of Influence

Initially posited by Epstein (1987), overlapping spheres of influence represents another eminent model discussed in the literature pertaining to parental involvement. This framework is structured based on three superimposed spheres, in the fashion of a Venn diagram, with the child placed in the center (i.e., where all spheres overlap completely with each other; Epstein, 1987). Each sphere represents a salient context where the child spends a significant amount of time and is therefore influenced by, including the family/home environment, school, and local community. One of the unique features of this model is the idea that greater overlap between different spheres (i.e., contexts) is equivalent to greater support and development for the child, thus leading to the enhancement of that child's learning and educational attainment. In other words, greater overlap means the distinction between two or more contexts becomes lessened, and the cohesive and potentially symbiotic nature of these systems therefore results in greater harmony for the child (e.g., less disruption and/or confusion experienced when transitioning from one sphere to another; Epstein, 2011). Under this model, it is argued the responsibility for the development, learning, and achievement of a child is shared between the community, school, and family (Yamauchi et al., 2017). Therefore, overlapping spheres of influence provides a useful framework for conceptualizing the importance of cooperation and cohesion between different systems and contexts for promoting optimal student growth.

Despite the utility of this model discussed previously, several important limitations should be considered when assessing the adequacy of this framework for understanding and explaining parental involvement and its impact on student learning, achievement, and behavior. For example, overlapping spheres of influence is arguably a derivation of Bronfenbrenner's (1979) ecological theory, the latter of which is largely considered more comprehensive and influential. Specifically, while overlapping spheres of influence consider the partnership between schools, families, and the community, it fails to acknowledge the impact of broader systemic factors, such as culture, politics, war, climate, and/or natural disasters (Yamauchi et al., 2017). Furthermore, severe criticisms of the overlapping spheres of influence model have been made regarding its sole concentration on school-based parental involvement at the expense of leaving home-based involvement unacknowledged (Auerbach, 2011).

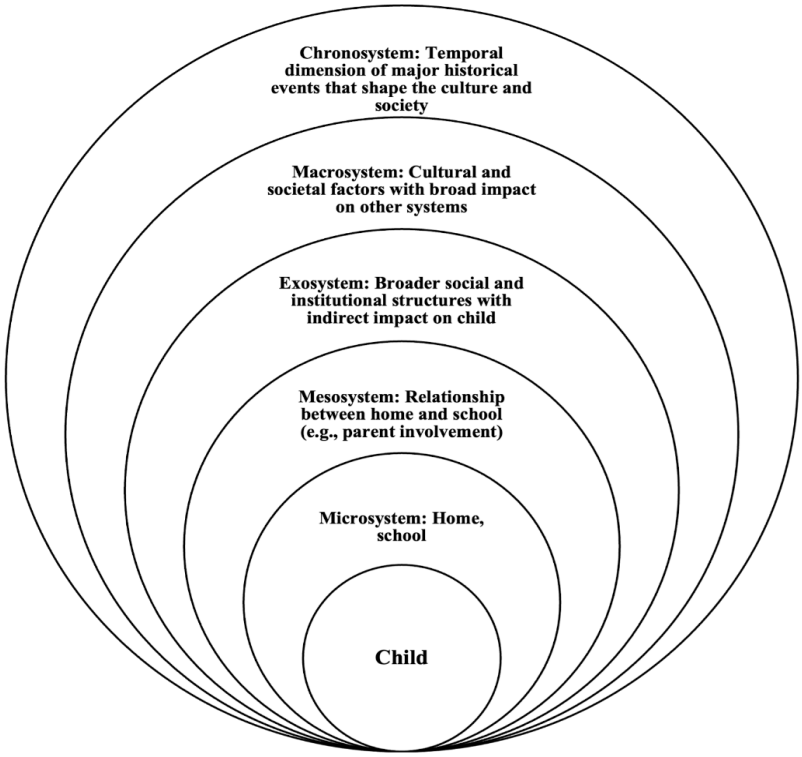
Ecological systems theory - ecological and contextual relationships

The final and most cited theoretical framework pertaining to parental involvement and student outcomes is the ecological systems theory (EST) framework (Yamauchi et al., 2017). This framework provides a useful method for conceptualizing several interactional systems embedded in a larger whole (i.e., microsystem, mesosystem, exosystem, macrosystem, and chronosystem), thus helping researchers understand interactions among schools, families, and institutions (Walker & Pattison, 2016). One of the most crucial elements of EST is its emphasis on the interactional nature of systems, rather than viewing systems and their influence as being entirely separate and isolated. As shown in Figure 1 and Table 1, the EST model of child development consists of five system levels, represented as concentric circles. At the center is the

microsystem, which represents a child's immediate context (e.g., home, school). The next concentric circle is the mesosystem, which represents an intermediate layer where various

Figure 1

Ecological Systems Theory (EST)



Note. Ecological systems theory views child development as a complex system of relationships affected by multiple levels of the surrounding environment, from immediate settings of family and school to broad cultural values, laws, and customs.

microsystems interact with each other and influence the child (e.g., parents and teachers). Next is the exosystem, which consists of broader social and institutional structures indirectly influencing the child (e.g., parents' place of employment), followed by the macrosystem, which consists of

cultural and societal elements affecting individuals to an even broader degree (e.g., socioeconomic status, ethnicity). Finally, the outermost concentric circle is the chronosystem, which represents a temporal dimension of major environmental changes occurring across history and the lifespan (e.g., developmental milestones or life transitions; Tudge et al., 2009).

Within EST, parental involvement may be best conceptualized at the level of the mesosystem, whereby development and educational experience for the child is enhanced via mutual interactions between the home and school micro-systems (Rosa & Tudge, 2013; Tudge et al., 2009). As EST became more sophisticated and mature, Bronfenbrenner progressively stressed the primary importance of consistent, synergistic interactions between salient influences in the child's proximal environments (Rosa & Tudge, 2013; Tudge et al., 2009). Therefore, parental involvement arguably represents one of the most important processes contributing to positive development and educational outcomes for children given that its essential nature involves the increase of interactions between the home and school environment.

Several papers used EST as a tool for conceptualizing the role of parental involvement in key developmental outcomes for children (e.g., Blandin, 2017; Duerden & Witt, 2010; Seginer, 2006). Although the intricacies associated with EST make precise mechanistic conclusions challenging, further research exploring the proximal processes associated with parental involvement may be useful for understanding subsequent impacts on student achievement.

Table 1

Description of the five systems in EST

System	Description
Microsystem	The system in which children live and interact is composed of their family, school, peer group, and community, representing their smallest and closest environment.
Mesosystem	The interaction between various systems such as family and school, taking place within the microsystem, is what makes up this system. An example of this could be the involvement of parents.
Exosystem	This system describes how social and cultural structures can affect an individual's growth and development, even if the individual is not an immediate participant in those structures.
Macrosystem	This system addresses the culture that is present and constantly changing, which has an impact on the environment that influences an individual's development.
Chronosystem	This system focuses on how the individual's development is impacted by their environment over time.

EST as the preferred theory for considering parental involvement

As alluded to earlier, Ecological systems theory (EST; Bronfenbrenner, 1979) represents perhaps the most comprehensive framework for understanding and structuring parental involvement in the context of multiple systems at different levels of analysis. Because of its comprehensiveness, EST is arguably the most appropriate and useful model for examining parental involvement, particularly in the context of rural areas in the Gulf nations, which remains understudied in the literature. The EST model represents a useful tool for understanding and describing the inter-system interactions that influence parental involvement in these regions of the world (Yamauchi et al., 2017). The five-level model of child development proposed in EST,

from smallest-to-largest, consists of the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. Thus, by considering each of these levels simultaneously, EST offers a comprehensive framework for examining the factors impacting parental involvement in the Gulf nations.

In addition, the EST framework provides an effective way to explore how parental involvement can optimize the child's mesosystem, the layer of mutual interactions occurring between various microsystems. In particular, the EST highlights the importance of consistent, synergistic interactions between salient elements in a child's proximal environments, which can be particularly relevant in the context of rural Gulf areas (Rosa & Tudge, 2013; Tudge et al., 2009). Research exploring the proximal processes associated with parental involvement, such as communication and parent-teacher interactions, can provide valuable insights into the specific factors that impact parental involvement in these regions.

Moreover, the EST is particularly relevant for examining parental involvement in the rural areas of Gulf nations, where social and institutional structures can have indirect effects on children's development. The exosystem level of the EST is particularly relevant, as it includes the broader social and institutional structures that indirectly influence the child, such as parents' place of employment, access to healthcare, and social services (Bronfenbrenner, 1979). In rural Gulf areas, these factors can be particularly salient, as families may have limited access to resources and support services.

Therefore, understanding the factors that impact parental involvement in rural Gulf areas requires a comprehensive approach that takes into account the interactions between systems and

the broader social and institutional structures that shape the child's environment. The EST provides a useful framework for examining these factors and understanding how parental involvement can be optimized to support children's development in these regions. By examining the various factors that impact parental involvement in rural Gulf areas, this approach can help to identify strategies for increasing parental involvement and improving outcomes for children in these regions.

Direct and Indirect Impacts of Parental Involvement on Student Achievement in The Gulf Nations

Although the present study concentrates on parental involvement in Jazan province, KSA, the literature review I conducted included a search for papers pertaining to parental involvement in any of the Gulf Nations. The reason for this discrepancy is two-fold: (1) the literature regarding parental involvement in KSA is incredibly limited, and there was a subsequent need to broaden the scope of my search for extant research on this subject; and (2) the Gulf Nations share many important characteristics in common (e.g., Arab culture, Islam), and therefore the results from a study on one area in the Gulf Nations is likely applicable to other regions.

Like research in the United States, few studies could be identified in the literature which investigate the direct academic impact of parental involvement in the Gulf nations. However, the available evidence thus far is promising, and tends to indicate parental involvement having a significant indirect impact on students' academic achievement. For example, Al-Mahdi (2010) explored the relationship between home-school relationship factors, including parental

involvement behaviors and attitudes towards education, and their association with mathematics learning. Along with positive relationships and attitudes, higher levels of involvement-related behaviors were shown to have a significant, positive influence on students' learning outcomes. Another study by Al Bahri and colleagues (2020) may provide some insight into the pathways through which parental involvement influences academic outcomes: two types of parental involvement, encouragement (e.g., parents encouraging their child to read) and positive modeling (e.g., parents reading an English book to their child), both significantly contributed towards more positive attitudes towards English reading for students. For English Language Learners (ELLs), this seems to provide evidence that parental involvement has a moderating effect on the amount of English reading that is engaged in at home, which could indirectly impact English reading proficiency in school. Specifically, if parents can augment more positive attitudes in their children towards practicing academic activities at home, this process could explain subsequent benefits in performance and/or achievement outcomes.

There is some evidence to suggest parental involvement also impacts multiple factors related to school climate. A later study by Al-Mahdi (2020) identified the impact of consistent and effective communication between parents and schools on multiple stakeholders. For example, students seemed to benefit from improved safety, emotional wellbeing, trust in schools, better identification of academic and/or behavioral needs, and increased academic motivation. Teachers were perceived to benefit by better understanding student backgrounds, building rapport with students and parents, and experiencing a sense of accomplishment as a result of developing closer relationships. Finally, parents were also perceived to benefit by building better

supportive skill sets and increased self-efficacy to help their child succeed academically, as well as better understanding the teaching and learning process at school.

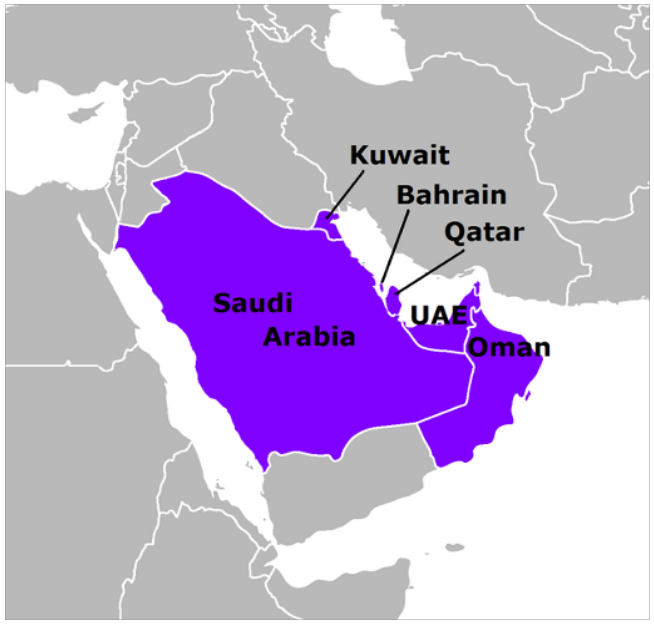
Despite the limitations associated with the scarce literature on direct academic impacts, several other facets related to parental involvement in the Gulf nations are worth consideration. The following discussion includes the following themes identified in the literature: relevant features associated with the Gulf nations compared to the U.S; levels of parental involvement based on a variety of behaviors; common strategies utilized by teachers and administrators to facilitate involvement; and current barriers to involvement. Lastly, suggestions for practice and future research are provided based on key trends in the literature.

Relevant Features of Gulf Nations

The Gulf Nations consist of Saudi Arabia, United Arab Emirates (UAE), Qatar, Bahrain, Oman, and Kuwait (see Figure 2). Of the characteristics pertinent to the context of any nation, these countries share many similarities, including practicing Islam as the dominant religion, using Arabic for verbal communication, being located along the Arabian (or Persian) Gulf, enforcing highly traditional cultural and social norms, and oil export as the main source of gross-domestic

Figure 2

Gulf Nations



Note. The Gulf Nations are situated in Southwest Asia.

product (GDP) and income. In terms of landmass and population size, KSA is the largest of the Gulf nations, consisting of 830 thousand square miles in area and approximately 34 million citizens. Bahrain, in contrast, consists of merely 303.7 square miles and is therefore the smallest of the Gulf nations in terms of landmass. Qatar, on the other hand, has the smallest population size estimated at around 2.8 million people (Gulf Research Center, 2020). Importantly, the Gulf nations tend to have the most urbanized societies in the world, such as in Kuwait and Qatar, where the entire citizenry resides in urban cities (Statista, 2020). However, KSA is not entirely composed of urban areas, with approximately 15% of its population living in rural communities instead (The World Bank, 2021). Approximately 13% of the populations in the UAE and Oman also reside in rural areas, rather than urban cities, as well.

In comparing and contrasting the education systems in the Gulf nations and the U.S., several similarities and differences exist. In the Gulf nations, key decision-making regarding curricula, materials, and other key school-related processes is made from a centralized entity, the Ministry of Education. The U.S., in contrast, tends to hold relatively limited centralized decision-making at the federal level, instead delegating a considerable amount of autonomy and independence to government entities at the State and District level (Bailey et al., 2021). Additional differences are found at the level of sex-based separation: while public schools in the Gulf nations include separate institutions for boys and girls (Alalami, 2021; Alahmari, 2022), whereas public schools in the U.S. integrate students of both sexes in the same buildings. In the realm of similarities, the use of individualized education plans (IEPs) for students with disabilities is a key shared feature between public schools in both the U.S. and Gulf nations

(IDEA, 2004; Al-Kahtani, 2015). The U.S. introduced IEPs initially under the All-Handicapped Children Act of 1975, whereas KSA first employed IEPs in 2001 (Alquraini, 2011; Murry & Alqahtani, 2015).

Because the Gulf nations based their IEPs on the U.S., tremendous overlap exists between schools in the Gulf nations and the U.S. in terms of the procedures involved in developing an IEP for a student identified with a disability (Alquraini, 2011; Gaad, 2019). The process of qualifying for special education, from beginning to end, requires a referral, evaluation, identification of a disability, and eligibility determination. Whether a student has been identified as having a disability and determined to qualify for specialized services, the results of an evaluation are discussed at an IEP meeting consisting of the student's parents/guardians, a general education and special education teacher, and other relevant school professionals, such as the school psychologist. This is specifically where the IEP is developed, which must include specific, measurable, achievable, relevant, and timely goals based on the unique profile of the student's strengths and needs that were identified via the results of the evaluation (Alquraini, 2011).

Current Levels of Parental Involvement and Educator Strategies in the Gulf Nations

Determining the level of parental involvement is challenging due to the wide range of different behaviors and practices that are categorized under this umbrella term. Specifically, parents tend to be mostly involved in some form of school-related communication or behavior, such as supportive learning at home (Ihmeideh et al., 2020; Moussa-Inaty & De La Vega, 2013);

however, other types of involvement, such as being included in the decision-making process for students, tend to be very low (Alobaid, 2018; Alqahtani, 2020).

There seems to be a glaring discrepancy between the perceived value of parental involvement and the actual level of such behaviors that occur (Alobaid, 2018). This deficit in active involvement practices seems to occur even when teachers and administrators rate parental involvement as being important (Baker & Hourani, 2014). Instead, parents are often only contacted when their child manifests academic or behavioral problems (Alqahtani, 2020). This leads parents to perceive themselves as passive members who hold little influence over the academic processes of their children (Moussa-Inaty & De La Vega, 2013). This self-perception may partially explain why parents perceive their relationship with schools less positively than teachers (Ihmeideh et al., 2020).

Because parental involvement is an integral part of student success, it may be important to understand how schools currently utilize strategies for facilitating this process. Al-Taneiji (2013) indicates administrators communicating with parents by providing information regarding student activities and/or behaviors. Al-Mahdi (2020) also identifies school-based methods for facilitating involvement, including regular communication, hosting open visitation days on campus, providing individual meetings with teachers/administrators, providing regular updates via phone calls/messages, and hosting social media pages or newsletters. However, it is unclear to what degree schools in the Gulf nations currently utilize one or more of these strategies.

Despite the promising evidence discussed previously related to the beneficial influence of parental involvement (e.g., Al Bahri et al., 2020; Al-Mahdi, 2010, 2020), the current literature indicates that involvement practices remain relatively underutilized. This trend seems to persist despite the perceived importance of involvement by both parents and educators. Although some strategies seem to be utilized by educators in order to facilitate more effective involvement, the literature consistently indicates deficits in participation and inclusion of parents in key academic processes. Although it is unclear to what degree current strategies are utilized or how effective such strategies are for increasing involvement behaviors, a glaring deficit in parental involvement seems to remain in Gulf nation schools. In order to better understand the factors undermining involvement practices and provide helpful recommendations for increasing involvement, the proceeding discussion focuses on current barriers identified in the literature.

Current Barriers to Parental Involvement and Possible Remedial Strategies

Numerous logistical, skills-based, and attitude/belief-related barriers to parental involvement seem present in the Gulf nations. Logistical barriers can be described as problems with coordinating and executing interactions between the family and school system; skills-based barriers relate to a lack of requisite knowledge or experience with parental involvement practices; and attitude/belief-related barriers relate to current perceptions or past experiences that undermine opportunities for parental involvement in the future. Despite their ostensible separation, these barriers are often overlapping and/or interrelated.

For example, it is a common expectation of parents that schools initiate involvement opportunities (Al-Mahdi & Bailey, 2022; Moussa-Inaty & De La Vega, 2013); However,

educators commonly reported a preference for parents to voluntarily seek involvement opportunities, such as communicating with schools (Al-Mahdi, 2020). As a result of these conflicting expectations, there is a high risk of misunderstanding and miscommunication between parents and teachers (Alalami, 2021; Ziad & Ahmad, 2018). This points to another prevalent barrier, which is a lack of negotiation and commitment between parents and educators towards clearly established roles and responsibilities related to parental involvement (Al Junaibi, 2018). For example, a lack of school-level parental involvement policy was indicated in Al-Mahdi's (2020) study as being the primary barrier to parents being more engaged and participating in their child's education.

A school-level policy could delineate the roles and responsibilities associated with various stakeholders, provide a list of suggested or approved practices and procedures for parents and teachers to use, and help clarify expectations regarding initiation of involvement opportunities. Such a policy could be particularly helpful for parents who are unfamiliar with the involvement process, another issue indicated in the literature (Al Sumaiti, 2012), because it could represent an accessible educational resource.

Logistical barriers are also very commonly reported in the literature, such as teachers being unable to facilitate parental involvement due to a lack of available time, energy, and/or resources due to current class loads and other professional responsibilities (Al-Mahdi, 2020). Similar logistical issues seem commonly experienced by parents as well, particularly by being unable to attend scheduled meetings with teachers due to employment or other life obligations (Al Sumaiti, 2012; Al Junaibi, 2018). Further research is needed to understand the extent to

which these logistical barriers preclude involvement, as well as strategies for addressing these issues.

Another barrier to parental involvement seems to be when parents experience negative interactions with teachers, or vice-versa (Ilmeideh et al., 2018; Al-Mahdi, 2020). Past negative experiences may dissuade parents and/or teachers from seeking future involvement opportunities, although it is not clear to what extent such experiences are common (Al-Mahdi, 2020).

Some parents may also experience low self-efficacy, or the belief that they cannot support or benefit their child's academic growth. This is particularly relevant when a language barrier is present (Al-Mahdi, 2020), such as non-English speaking parents whose child attends a primarily English-speaking school in UAE (Moussa-Inaty & De La Vega, 2013). Additional sources of low self-efficacy may be represented by the lack of parental inclusion in decision-making processes with educators, leading parents to be perceived as passive members in their child's education (Moussa-Inaty & De La Vega, 2013; Sellami et al., 2022). However, low self-efficacy is not limited to parents; some educators also report experiencing this problem, which may stem from a lack of experience with parental involvement practices (i.e., collaborating with parents; Al-Mahdi, 2020; Baker & Hourani, 2014).

There is also evidence that parents who are of low socioeconomic status (SES) or have low educational attainment are less likely to be involved in their child's education (Al-Fadley et

al., 2018). However, Al-Mahdi (2020) suggests that high SES and educational attainment factors may increase parental involvement, but it should not be generalized to all parents. Finally, there is a seeming barrier when a discrepancy between the parent's and child's biological sex is present. That is, because of the sex- separation policies in the Gulf nations, a parent whose biological sex is opposite to their child's cannot physically be present on the school campus (Alalami, 2021; Alahmari, 2022; Al-Taneiji, 2008). Obviously, this policy presents a salient barrier for some parents who would otherwise be involved physically with their child's school activities.

Implications for Research and Practice

As mentioned previously, the majority of studies in the Gulf nations focus on urban schools. Thus, the implications discussed here may only be appropriate for urban populations, and future research is needed to assess the degree to which they are applicable to rural schools. However, it is impossible to determine whether the themes discussed in this section can be applied validly to rural schools without additional research. Indeed, rural communities tend to carry distinctive features that could impact the nature of parental involvement, including more tight-knit communities, more traditional beliefs and values, and the school system itself tends to represent a more significant, central influence (Schafft, 2016). Nevertheless, some notable themes are likely worth exploring here to help practitioners and researchers with understanding and improving levels of parental involvement in schools throughout the Gulf nations.

Many of the barriers identified in the literature relate to a lack of knowledge, understanding, and/or conflicting expectations between parents and educators (e.g., Al Sumaiti,

2012; Al-Taneiji, 2008; Ihmeideh et al., 2020; Moussa-Inaty & De La Vega, 2013). It may be possible for many of these barriers to be effectively addressed by establishing a school-level parental involvement policy, where the roles, expectations, and guidelines regarding best practices are clearly delineated and accessible to stakeholders. Indeed, the need for a systemic strategy such as this has been identified by other researchers (e.g., Alqahtani, 2020; Al-Shammari & Yawkey, 2008). Future research involving the introduction of a school-level policy congruent with these parameters and evaluation of subsequent levels of parental involvement practices is needed to ascertain the feasibility and efficacy of this strategy.

Based on the literature, parents commonly report a general preference for consistent communication and feedback from teachers (Alahmari, 2022; Alnaim, 2018), although this form of involvement remains relatively lacking (Ziad & Ahmad, 2018). Given this emphasis, as well as the common expectation that schools serve as the initiators of involvement, it would seem helpful for teachers to prioritize some form of regular communication with parents regarding their child's academic progress. For example, there are a variety of mobile phone applications tailored towards educators which would allow parents to view daily updates regarding students' classroom activities, learning objectives, and other information relevant to parents regarding their child's education. Furthermore, teachers could send students home with learning materials and instructions for parents who are interested in participating in their child's learning outside of the classroom. This strategy would serve several purposes, including: providing parents with opportunities to become involved; helping parents stay informed regarding their child's academic progress; and demonstrating respect for the parental role in supporting student learning

and achievement. Evidence also suggests this strategy is likely to be feasible, based on several studies indicating parents are highly involved in their child's learning at home (Al-Harrasi & Al-Mahrooqi, 2014; Al-Mahrooqi et al., 2016). By fostering more active forms of involvement, this strategy could also address the issue of parents perceiving themselves as passive members who hold little influence over their child's education (Moussa-Inaty & De La Vega, 2013; Sellami et al., 2022).

An additional strategy for bolstering parental self-efficacy may be the inclusion of parents in educational decision-making for students, especially in cases where an IEP is present (Al-Hassan, 2020). Combined with regular and consistent communication, inviting input from parents could not only provide useful information regarding a student's strengths and needs, and thus increase the likelihood of developing and appropriate plan for that student, but would also help parents perceive themselves as influential members of their child's educational progress (Al-Harrasi & Al-Mahrooqi, 2014). Although this may represent a promising method for increasing active involvement by parents, more research is needed to determine the degree to which educational legislation in the Gulf nations can accommodate parental input in the educational decision-making process, as well as best practices for doing so. Additionally, some educators tend to view parental involvement in educational decision-making as less important than other areas of involvement (Al-Daihani, 2005). Therefore, future research should also investigate the extent to which this attitude precludes parental involvement in decision-making and possible methods for cultivating educator attitudes which are conducive to increased involvement in decision-making.

The literature also indicates some educators experience low self-efficacy with regard to facilitating parental involvement, likely due to a lack of training and experience with related techniques and practices (e.g., collaborating with parents; Al-Mahdi, 2020; Baker & Hourani, 2014). Therefore, the development and implementation of educational and training resources for educators to learn and experience parental involvement practices could help address this barrier. Nevertheless, additional research is needed to determine how to design these educational training resources and implement them to effectively reach a large number of educators. Afterwards, additional research assessing the impact of these training resources on educator self-efficacy and subsequent parental involvement practices would be useful.

Another common barrier identified in the literature is represented by logistical issues with conflicting parent-teacher schedules, limited time and energy, and preoccupation with other parenting, professional, and/or occupational responsibilities (e.g., Al-Hail et al., 2021; Al-Mahdi, 2020; Almazeedi, 2009; Al Sumaiti, 2012; El Shourbagi, 2017). For example, Junaibi (2018) indicated that parents often do not attend school engagement opportunities (e.g., teacher meetings) because of unsuitable timing, and strongly desire innovative strategies to circumvent these limitations. The introduction of technological social software, such as the Google Meets platform for virtual meetings and the Calendly app for scheduling, has provided considerable flexibility for stakeholders to communicate and remain engaged, despite geographical and/or physical constraints. Future research should consider the use of these tools to address current logistical barriers to parental involvement, such as providing parents with the option to meet virtually with teachers without needing to leave their home. This approach could also potentially

address the barrier associated with parent-teacher gender discrepancies, which prevents or reduces the degree to which parents meet in-person with teachers who are of the opposite sex (Alalami, 2021; Alahmari, 2022; Al-Mahdi & Bailey, 2022). Best practices for the integration of these digital tools and analyses of subsequent involvement outcomes would also be needed to determine whether such approaches effectively address the logistical barriers discussed previously.

An additional barrier in the literature is represented by the reduction in involvement-related behaviors for parents with low socioeconomic status (SES; Al-Fadley et al., 2018). Additional research shows educational attainment may play a mediating role between SES and level of involvement in student education (Al-Mahdi, 2020). Further research should explore possible reasons for this mediational relationship and identify possible methods for ameliorating the effects of low SES and low educational attainment on parental involvement.

Summary

Overall, considerable evidence garnered from the extant literature suggests parental involvement serves a valuable role in promoting positive academic performance and achievement for students in primary and secondary education. While parental involvement is considered critical in the process of special education evaluations and the development of IEPs, the body of empirical evidence related to parental involvement in special education and achievement outcomes for students with disabilities remains scarce. Nevertheless, the limited evidence that has emerged indeed suggests parental involvement can be beneficial for students in special education, and parents may play a particularly important role in ensuring students are

appropriately identified and provided with efficacious specialized services, as well as given reasonable and appropriate academic goals on their IEPs.

The body of literature is less robust in terms of distinguishing potential differences in parental involvement between urban and rural school communities. Of the limited evidence that has been produced, it is suggested that parental involvement may have a stronger impact for students in urban school settings compared to students in rural communities, although the precise reason for this discrepancy has not yet been parsed. Further research is greatly needed examining the potential factors explaining possible differences in the manifestation and impact of parental involvement between rural and urban school settings, and how the implications of such differences might shape program development and educational policy.

Although research on parental involvement in the Gulf Nations is relatively new compared to the body of literature pertaining to the U.S., the extant evidence suggests parental involvement in the former region of the world provides similar benefits as in the latter region. Although the body of literature pertaining to the KSA remains scarce, political and socio-cultural similarities between regions in the Gulf Nations provide confidence in the generalizability of studies in other countries in that region. That is, one can be relatively confident that the findings of a study in UAE hold relevance to the KSA because the level of similarity between these environments is so high. Nevertheless, current gaps in the literature were identified in this review and include: a lack of studies focusing on rural schools in the Gulf Nations; a lack of studies using elementary teachers of students with LD or other disabilities; and a lack of studies exploring parental involvement and parental empowerment using measures with psychometric

reliability and validity. Therefore, the present study seeks to address these gaps in the literature by developing a new survey to assess current levels of parental involvement and empowerment, perceived obstacles to parental involvement, and the attitudes of elementary teachers who work with students with LD in Jazan province, KSA.

Purpose of the study

The purpose of this study was to examine the experience of teachers (*teachers of students with learning disabilities (LD) and general education teachers*) who work with students with Learning Disabilities (LD) pertaining to parental involvement, the obstacles preventing parental involvement, and the attitudes of teachers regarding parental involvement and parental empowerment in Jazan province, Saudi Arabia.

Research questions

This study sought to answer the following questions:

1. What is the experience of teachers (*teachers of learning disabilities and general education teachers who have taught or are still teaching students with learning disabilities*) with parental involvement with parents of students with LD in Jazan province, Saudi Arabia?
2. From the perspective of these teachers, what are the current obstacles preventing parental involvement?
3. What are the attitudes of these teachers toward parental involvement and parental empowerment?

Chapter 3

Methods

The present research study was conducted using a quantitative design with descriptive and correlational features. I selected this design because it would allow the research questions to be sufficiently addressed by helping elucidate the current experiences of teachers of students with LD with parental involvement, the current obstacles undermining parental involvement, and the attitudes of these teachers in relation to the involvement and empowerment of parents with regard to their child's education. The advantages of the approach to the present study included the ability to access as many participants as possible remotely while still allowing for sufficient richness of the data to enable valid inferences and potentially inform the development of practical solutions to applied problems (Sykes et al., 2018).

Constructs

The research instrument for the present study was designed to assess three primary constructs: (1) experiences of parental involvement; (2) obstacles preventing parental involvement; and (3) attitudes towards parental involvement and parental empowerment. The instrument was specifically tailored towards measuring each of the constructs based on the responses of teachers who work with students with learning disabilities (LD). See Table 2 for definitions for each of these constructs, based on the American Psychological Association (APA) Dictionary of Psychology (2023).

Table 2

Blueprint of survey instrument

The construct/ components	Definition	Number of Survey Items
Experience	Occasions that the teachers of learning disabilities and general education teachers lived through that were related to the parents being involved with them regarding their child's education.	13
Obstacles	The problems that are preventing effective and efficient parental involvement from occurring between parents of students with LD and teachers of LD and general education teachers in Jazan province.	16
Attitude	A relatively enduring and general evaluation of parental involvement and parental empowerment, which could positively or negatively impact the teacher's involvement with parents.	15

Population of the study

The target population of interest in the present study consisted of special and general education teachers in elementary schools working with students with LD in Jazan province, KSA. Located in the southwestern region of KSA, I selected Jazan province as the population area of interest for two reasons: (1) no research has been conducted in this region specifically on the topic of parental involvement, despite similar studies being completed in other parts of KSA

(e.g., Riyadh; Alqahtani, 2020; Jeddah; Alahmari, 2022); and (2) Jazan province includes both urban and rural schools, the latter setting having not been included in studies of parental involvement in KSA. Therefore, the present study may provide the first empirical investigation of parental involvement in rural schools in KSA.

Participant sampling took place by contacting the Department of Special Education in Jazan province to obtain permission to conduct the present research study using teachers in that region. I shared a descriptive document containing details of the study and survey, both of which were written in Arabic (the primary language in KSA). These documents, along with the link to the Qualtrics survey, were then shared by the department with teachers via WhatsApp, the primary digital communication platform for teachers in KSA.

As depicted in Table 3, according to the Department of Education in Jazan province (2023), there are 597 male students and 243 students with LD in Jazan. In addition, there are 53 programs for males with LD and 11 programs for females with LD across the Jazan province region, and these programs are relegated entirely to elementary schools. LD programs in Jazan province typically consist of a single resource room with a teacher who specializes in LD. In total, there are 48 male and nine female teachers who specialize in LD in Jazan province. The number of general education teachers in schools with LD programs has not yet been ascertained.

Table 3

Number of LD students, programs, and teachers

Characteristic	*n*
Number of male students with LD	597 students
Number of female students with LD	243 students
Number of LD programs (classrooms) for male students in Jazan province	53 programs
Number of LD program (classrooms) for female students in Jazan province	11 programs
Number of male special education teachers specialized in LD	48 teachers
Number of female special education teachers specialized in LD	9 teachers
Number of general education teachers who work with students with LD	unknown

Research instrument

The research instrument developed for the present study involved a thorough review of the literature and the use of deductive methods to generate an inventory of items hypothesized to assess the three constructs described earlier (i.e., experiences, attitudes, and barriers). This inventory was then converted into a digital questionnaire using Qualtrics, which consisted of a survey with three sections, each of which is purposed to address one of the research questions. Thirteen items were developed to assess teachers' experience with parental involvement, focusing primarily on the frequency of parents' participation in relevant educational activities. Sixteen items were generated to assess common obstacles to parental involvement: seven of

these items focused on obstacles pertaining to parents/guardians, including a lack of knowledge regarding educational rights, limited education, and not valuing involvement; the remaining 9 items corresponded to obstacles located in the system (i.e., schools and teachers), including insufficient policy, low information or access to information corresponding to involvement opportunities, and infrequent or non-existent professional development trainings on parental involvement for teachers.

The final section of the survey consisted of 15 items intended to examine the attitudes of teachers in relation to parental involvement and parental empowerment, with seven items being allocated to parental involvement and eight items being allocated to parental empowerment. To derive an inventory of items designed to serve as indicators of parental empowerment, I formulated declarative statements implying parents having control or influence over their child's education, based on previous research collecting data on this construct using self-rating measures (e.g., Hamlin & Cheng, 2020). This included statements indicating: parents being free to voice concerns; invited to contribute to decision making regarding their child's education; teachers having a responsibility to foster parents' self-efficacy by increasing knowledge regarding their child's disability, education, and the importance of parents' involvement in the schools; teachers' support for parents' participation in IEP meetings by providing preparatory materials; and teachers' support for parent advocacy regarding their child's specialized educational services. Appendix (B) includes all the statements used to serve as indicators of parental empowerment from the perspective of teachers in the present study.

Data analysis (R software)

Data obtained from participants using the Qualtrics platform was converted into an Excel file, which I then imported into an R software package document for further analysis. Descriptive statistics were generated to provide a general picture of teachers' responses, including the mean and standard deviation at the level of each individual item and subscale. Mean trends pertaining to experiences, barriers, and attitudes of teachers pertaining to parental involvement and/or parental empowerment were assessed by calculating the mean score on the subscales. For example, in the domain of experiences, a high mean score indicates parents having a tendency to frequently engage in school-based involvement activities, whereas a low mean score indicates the opposite. In addition, on the obstacle subscale, a high mean score indicates a higher prevalence of issues that undermine parental involvement; On the attitudes subscales, a high mean score indicates participants have a positive view of parental involvement and parental empowerment.

Data cleaning consisted of finding missing data and using means imputation to replace missing responses from participants by using the mean score for a particular subscale (e.g., experiences with parental involvement). At a technical level, I used R to identify participants with missing responses and which subscale these missing responses corresponded to. These missing responses were replaced with the participant's specific mean subscale score, based on which subscale the missing item belonged to. This technique is also called a personal mean score imputation. There were no clear patterns of missingness, which meant a lower risk of biasing the results by using means imputation to replace missing values in the dataset.

Subsequent statistical analysis aimed to answer the research questions entailed using four individual multiple regression models with the primary constructs of interest (i.e., experiences, obstacles, and attitudes towards parental involvement and attitudes towards parental empowerment) as dependent variables and general or special education status, years of experience, sex, rural or urban school status, educational degree, grade-level taught, and number of students served as independent variables. Independent Welch's t-tests were also conducted for testing the significance of differences in means between two groups based on variables with only two levels (i.e., separating participants into no more than two groups, such as sex or school community), while the Kruskal-Wallis test was used as a non-parametric alternative to standard analysis of variance (ANOVA) for testing the significance of differences in means between more than two groups (i.e., separating participants into more than two groups, such as grade-level of teaching or degree held). These analyses were conducted to garner insight into potential factors impacting experiences, attitudes, and obstacles pertaining to parental involvement.

Validation Process

The validation process of the survey implemented in this study included three steps. First, the Arabic version of the survey was reviewed by professionals who are native speakers of Arabic to ensure statements had clarity and were free of grammatical and spelling mistakes, as well as being easily understood by the target population. The second step involved a think aloud protocol conducted with three professionals that work in the education field in KSA (a more detailed description of this process is provided below). The third step involved calculating

Cronbach's alpha coefficient using R software (a more detailed description of this process is provided below).

Validity

A think aloud protocol was conducted with three individuals who work in the education field in KSA. Two individuals were faculty members in separate Saudi universities specialized in special education and the third individual was the supervisor of the special education programs in Jazan province. All three think aloud protocol sessions were completed via Zoom.

The think aloud protocol was used to gather information on how participants interact with the survey items and establish content validity with the research instruments used in this study. The participants in this protocol were asked to verbalize their thoughts as they answer the survey items. Specifically, they were instructed to read each survey item and describe their thoughts as they decide on a particular response. Notes were taken by the researcher throughout the three sessions.

Feedback from the participants in the think aloud protocol included suggestions regarding the wording (e.g., *deleting some parts of some of the survey items, such as Regulations of Special Education Programs and Institutes, RSEPI in item one*) of some survey items, as all the survey was written in Arabic. For example, one suggestion was about item 1 in the attitude section as the item was written in this format (e.g., *parental involvement is critical to the development of students with disabilities*) and one of the think aloud participants thought the item was not clearly written and suggested it be divided into three items that include academic, behavioral, and social developments. Another suggestion from another participant was to add the *borderline*

intellectual functioning (BIF) disability as an option in the demographic and occupational information section because there are teachers in Jazan province who are specialized in this disability. All these suggestions were very helpful and subsequently incorporated into the current version of the survey employed in the present research study.

Reliability

To check the reliability of the survey *Cronbach's alpha coefficient* was implemented. R software was used to calculate the alpha coefficient. Inter-item consistency (i.e., reliability) values range between 0 and 1, with higher values indicating higher levels of reliability Shrestha (2021) suggests a Cronbach's alpha coefficient of 0.7 or greater represents an appropriate target for achieving high reliability.

Summary

To summarize, a quantitative design with descriptive and correlational features was chosen for the present research study because this methodology enabled data to be gathered remotely, current status related to parental involvement to be evaluated, and potential relationships between relevant contextual factors and parental involvement to be assessed using statistical tests and modeling techniques. Descriptive statistics were initially produced to enable general inferences regarding teachers' perceptions of current parental involvement and empowerment, attitudes towards involvement, and current barriers to involvement. Subsequent statistical analysis was employed to assess potential differences in mean ratings on these key

factors based on teacher-related variables (e.g., gender), as well as to assess potential relationships between salient factors and parental involvement and empowerment.

Chapter 4

Result

The purpose of this quantitative study with descriptive and correlational features was to explore current experiences with parental involvement, perceived obstacles to parental involvement, and attitudes towards parental involvement and parental empowerment from the perspectives of teachers who work with students with LD in the KSA. Participants for this research were drawn from the population of public-school teachers in Jazan province, KSA. This research was guided by three primary questions formulated to address important gaps in the literature identified earlier, including the lack of comparative research exploring parental involvement in rural vs urban areas and the lack of investigation into how parental involvement occurs with teachers in the KSA. For the purposes of organizing the results of the present research study, findings are presented according to the specific research question they pertain to. A brief description of the sample collected in the present study will be provided prior to reporting the results of subsequent data and statistical analysis.

Participant characteristics are provided in Table 4. A total of 50 teachers agreed to participate in the study and completed a majority of the survey (i.e., answered more than 50% of the items). Missing data was handled using means imputation in R, which substitutes any missing value with the mean of that participant's score on a particular subscale (e.g., experiences with parental involvement). Of the 50 participants in the sample, 33 identified themselves as special education teachers specialized in LD, while 13 identified as general education teachers working with students with LD.

For the purposes of inferential and descriptive analysis, both general education and special education teachers of students with LD were combined into a single sample. This decision was made for several reasons, including: (1) there was no significant difference in mean experiences with parental involvement reported between special education and general education teachers of students with LD; (2) special and general education teachers work collaboratively together as a team to develop students' IEPs and goals; and (3) combining both types of teachers into a single sample allow for stronger conclusions made from analyses than if analyses were conducted separately for each group of participants.

The sample consisted of 33 male and 17 female teachers; amongst participants who identified as special education teachers specialized in LD, 25 were male and 8 were female; amongst participants who identified as general education teachers working with students with LD, 8 were male and 9 were female. In terms of educational attainment, there were 31 participants who indicated holding a bachelor's degree, 7 with a diploma of special education, and 12 with a graduate degree (i.e., either master's or doctorate). In terms of the number of years working as a teacher, the largest proportions of participants indicated teaching for between 11 and 15 years (N = 17) and 5 years or less (N = 14), and between 6 and 10 years (N = 11). Six or fewer participants indicated teaching for the remaining lengths of time. With reference to the number of students with disabilities these participants worked with throughout their career, the majority of participants indicated having worked with 10 or fewer students (N = 17) and more than 50 students (N = 15). Additionally, nine participants reported teaching in urban schools, whereas 41 reported teaching in rural schools.

Table 4

Participant Characteristics

Participant Characteristic	*N*	*%*
Gender		
Male	33	66.0
Female	17	34.0
Type of Teacher		
Teachers of learning disabilities (LD)	33	66.0
Male	25	75.75
Female	8	24.24
General education teacher who is teaching or has taught students with learning disabilities (LD)	17	34.0
Male	8	47.05
Female	9	52.94
Degree Held		
Diploma	7	14.0
Bachelor's degree	31	62.0
Master's degree	10	20.0
Doctoral degree	2	4.0
Years of Teaching		
5 years or less	14	28.0

6 - 10 years	11	22.0
11- 15 years	17	34.0
16 - 20 years	2	4.0
21 years or more	6	12.0
Number of Students Taught		
10 or less	17	34.0
10 - 20	9	18.0
20 – 30	5	10.0
30 – 40	2	4.0
40 – 50	2	4.0
50 and more	15	30.0
City/ Town		
Jizan (Urban)	9	18.0
Sabya	15	30.0
Abo Arashi	7	14.0
Ahad Almasrah	8	16.0
Al Aridhah	0	0
Farasan island	0	0
Samtah	11	22.0

Instrument Reliability

Part of the data analysis process for the present research study involved assessing statistics which are indicative of adequate or inadequate performance in relation to the measurement instrument used to collect data. This consisted of calculating interitem consistency

using Cronbach's alpha coefficient for each of the subscales provided in the survey, which included the experiences subscale, the obstacles subscale, the attitudes towards parental involvement subscale, and the attitudes towards parental empowerment subscale. The results of each of these reliability analyses are included in Table 5. The experiences subscale consisted of 5 items, from which a Cronbach's alpha coefficient of 0.80 (rounded) indicated high interitem consistency. The obstacles subscale consisted of 16 total items, from which a Cronbach's alpha coefficient of 0.87 (rounded) indicated high interitem consistency. The attitudes towards parental involvement subscale consisted of 7 items, from which a Cronbach's alpha coefficient of 0.90 (rounded) indicated high interitem consistency. Lastly, the attitudes towards parental empowerment subscale consisted of 8 items, from which a Cronbach's alpha coefficient of 0.86 (rounded) indicated high interitem consistency. Given the high reliability of each of these subscales, it was concluded that the data collected from the research instrument was reliable and could enable confident conclusions during the preceding data and statistical analyses.

Table 5

Reliability Analysis

Scale	*Cronbach's alpha coefficient*
Experiences	0.80
Obstacles	0.87
Attitudes Towards Parental Involvement	0.90
Attitudes Towards Parental Empowerment	0.86

Research Question 1

What is the experience of teachers (*teachers of students with learning disabilities and general education teachers*) with parental involvement with parents of students with LD in Jazan province, Saudi Arabia?

Gathering information on teachers' current experiences with parental involvement is crucial for estimating the degree to which parental involvement is currently occurring in Jazan province, KSA. A variety of analysis techniques (*descriptive analysis and inferential statistics*) were utilized to understand current status in parental involvement, as well as the potential factors that could be influencing the degree to which parental involvement is occurring. Subsequent statistical analysis included investigation of potential differences in the average degree of parental involvement experience reported by teachers based on sex, degree held, special or general education status, years of teaching experience, grade-level of students taught, school location (i.e., urban vs rural), and the number of students with disabilities having served throughout one's career.

Descriptive Analysis

Descriptive Analysis of School Conferences and Volunteering Opportunities

Tables 6 and 7 present descriptive analysis of the availability of school conferences and volunteering opportunities. Several noteworthy findings are worth discussing here. For example, when asked whether school conferences were offered for parents at any time in the academic year, 41 participants responded with yes, whereas 8 participants indicated their school did not offer any conference to parents in the academic year (1 participant did not respond to this

question). The most common answer to how often the school offers conferences among both male and female participants was either once or twice. In addition, when asked if schools send invitations to parents to attend these conferences, most participants 39 (97.5%) indicated that their schools invite parents, whereas one male (2.5%) participant indicated that the school does not invite parents. When asked how often parents attend these school conferences, more participants indicated parents often attend (23 [57.5%]) than rarely attend (14 [35%]), and only three (7.5%) participants indicated parents always attend (1 participant did not answer this question).

With regard to offering opportunities for parents to participate in volunteer activities hosted at the school, more participants reported their school does not offer these opportunities (n = 27, 56.3%) than those who reported their school offers these opportunities (n = 21, 43.8%). Additionally, among participants who indicated volunteering opportunities were available for parents to participate in activities hosted at the school, 18 (90%) participants indicated their school sends out invitations to parents to participate in those activities, whereas two (20%) female participants indicated their school did not invite parents. Among the former group of 18 (90%) participants, 11 (27.5%) were male, and 7 (17.5%) were female. Furthermore, when asked how often parents volunteer in classroom activities, 4 (20%) participants (one male 5% and three female participants 15%) reported parents never participate in classroom activities, whereas 11 (55%) participants (eight male 40% and three female participants 15%) reported parents rarely participate in classroom activities. Of the 21 participants who indicated volunteering opportunities were available, when asked how often parents volunteer in extracurricular

activities, ten (50%) participants (6 male [30%] and four female participants [20%]) indicated parents rarely volunteer in extracurricular activities and 8 (40%) participants (four male [20%] and four females [20%]) indicated parents often volunteer.

Table 6

Responses to (yes or no) School Conferences and Volunteer Activity Questions in the Survey

Question	*Total n (Yes)*	*Total n (No)*	*Male (Yes)*	*Male (No)*	*Female (Yes)*	*Female (No)*
Does your school have school conferences during the academic year?	41 (83.7%)	8 (16.3%)	26 (53.1%)	7 (14.3%)	15 (30.6%)	1 (2%)
Does your school invite the parents to school conferences during the academic year?	39 (97.5%)	1 (2.5%)	24 (60%)	1 (2.5%)	15 (37.5%)	NA
Does your school organize volunteer activities so parents can participate in these activities?	21 (43.8%)	27 (56.3%)	12 (24.5%)	20 (40.8%)	9 (18.4%)	7 (14.3%)
Does your school invite the parents to volunteer for the activities?	18 (90%)	2 (10%)	11 (27.5%)	0	7 (17.5%)	2 (5%)

Table 7

Responses to School Conference Frequency and Parent Attendance to School Conferences and Volunteering Activities in the Survey

Question	*Overall*	*Male*	*Female*
How many times does your school hold school conferences during the academic year?			
One	22 (55.0%)	15 (37.5%)	7 (17.5%)
Two times	11 (27.5%)	7 (17.5%)	4 (10%)
Three Times	6 (15.0%)	2 (5%)	4 (10%)
Four Times	0	NA	NA
Five Times	0	NA	NA
More than five times	1 (2.5%)	1 (2.5%)	NA
How often parents attend school conferences during the academic year?			
Never	0	NA	NA
Rarely	14 (35%)	10 (25%)	4 (10%)
Often	23 (57.5%)	14 (35%)	9 (22.5%)
Always	3 (7.5%)	1 (2.5%)	2 (5%)

How often parents volunteer in classroom activities.			
Never	4 (20%)	1 (5%)	3 (15%)
Rarely	11 (55%)	8 (40%)	3 (15%)
Often	4 (20%)	2 (10%)	2 (10%)
Always	1 (5%)	0	1 (5%)
How often parents volunteer in extracurricular activities.			
Never	2 (10%)	1 (5%)	1 (5%)
Rarely	10 (50%)	6 (30%)	4 (20%)
Often	8 (40%)	4 (20%)	4 (20%)
Always	0	NA	NA

Descriptive Analysis of the Remaining 5-item Experience Subscale

Type of parental involvement overall

As table 8 shows, the most common experience of parental involvement was parents replying to WhatsApp messages pertaining to their child ($M = 3.05$, $SD = 0.55$). The next most common experience with parental involvement took the form of parents supporting their child with assignments at home (*parental involvement at home*; $M = 2.91$, $SD = 0.41$). By contrast, the two least common experiences of parental involvement were parents visiting school to ask about their child's academic progress ($M = 2.23$, $SD = 0.67$), and parents attending Individualized Education Program (IEP) meetings ($M = 2.00$, $SD = 0.68$).

Table 8

Experience with parental involvement

Item	*M*	*SD*
How often parents reply to my WhatsApp messages when communication is about their child.	3.05	0.55
How often do parents support their child with assignments at home.	2.91	0.41
How often parents initiate WhatsApp messages to me asking about their child's academic progress.	2.79	0.64
How often parents visit school to ask about their child's academic progress.	2.23	0.67

How often parents attend Individualized Education Program (IEP) meetings.	2.00	0.68

Note. The response options for these statements were: Never (1), Rarely (2), Often (3), Always (4)

Type of parental involvement by sex

As table 9 shows, ratings for the most and least common experiences reported amongst male teachers did not differ from those of female teachers and are similar to the overall results reported in Table 8.

Special and general education

As shown in Table 9, both groups (*special education teachers specialized in LD and general education teachers working with students with LD*) rated the types of parental involvement similarly and the rank order of types of involvement reflected that of the overall sample presented in Table 8.

Years of experience

As shown in Table 9, there was very little difference in the overall type of parental involvement experiences reported between teachers with different levels of experience, based on the number of years spent in the field of education. Specifically, all responses regarding type of parental involvement ranged from 2.21 - 3.08 on a scale of 1-4. The exception was teachers with more than 10 years of experience, who indicated the least common experience of parental involvement was parents attending IEP meetings.

Table 9

Means and standard deviations for type of parental involvement (items)by sex (male and female), role (general education teachers and special education teachers), and years of experience (up to 10 years and more than 10 years)

Items	*Sex*	*M*	*SD*	*Role*	*M*	*SD*	*Experience*	*M*	*SD*
How often parents attend Individualized Education Program (IEP) meetings.	Male	1.99	0.64	General	2.16	0.67	Up to 10 years	2.21	0.49
	Female	2.03	0.79	Special	1.93	0.67	More than 10 years	1.87	0.74
How often parents visit school to ask about their child's academic progress.	Male	2.27	0.71	General	2.11	0.32	Up to 10 years	2.24	0.71
	Female	2.13	0.53	Special	2.29	0.77	More than 10 years	2.23	0.65
How often parents reply to my WhatsApp messages when communication is about their child.	Male	3.03	0.61	General	3.00	0.00	Up to 10 years	3.02	0.40
	Female	3.13	0.34	Special	3.08	0.66	More than 10 years	3.08	0.63

How often parents initiate WhatsApp messages to me asking about their child's academic progress.	Male	2.79	0.69	General	2.76	0.43	Up to 10 years	2.93	0.53
	Female	2.79	0.47	Special	2.80	0.71	More than 10 years	2.70	0.69
How often parents support their child with assignments at home.	Male	2.88	0.38	General	2.96	0.37		2.86	0.51
							Up to 10 years		
	Female	3.13	0.46	Special	2.89	0.42	More than 10 years	2.93	0.32

Note. The response options for these statements were: Never (1), Rarely (2), Often (3), Always (4). M and SD are used to represent mean and standard deviation, respectively.

Urban vs rural location

The parental involvement experience of teachers in urban vs rural locations and the number of students with LD taught appear in Table 10. With respect to teachers working with students with LD in urban areas, there were some differences observed in terms of the most common experiences with parental involvement compared to teachers in the overall sample of teachers working with students with LD. The most common experience of urban teachers was parents initiating WhatsApp messages asking about their child's academic progress (M = 3.23, SD = 0.73). The next most common experience was parents replying to my WhatsApp messages when communication is about their child (M = 3.00, SD = 0.00). Parents supporting their child's schoolwork at home (parental involvement at home) represented the third most common experience of parental involvement (M =2.92, SD = 0.28). Like the other sample groups, the in-person forms of parental involvement, including asking in-person at the school about their child's academic progress (M = 2.84, SD = 0.99), and IEP meetings (M = 2.46, SD = 0.78) represented the least common forms of parental involvement experienced amongst these teachers. By contrast, the mean item rankings of the experience subscale amongst teachers of students with LD in rural schools were exactly the same as that for the overall sample (*parents replying to WhatsApp messages pertaining to their child, parents supporting their child with assignments at home, and parents initiating WhatsApp messages to me asking about their child's academic progress*).

Numbers of students with LD taught

As table 10 shows, both groups of teachers (*up to 30 students and more than 30 students with LD throughout their careers*), reported the same mean item rankings of experiences with the various forms of parental involvement. Similarly, both groups' ranking of types of involvement from most common to least common reflected the overall sample.

Table 10

Means and standard deviations for type of parental involvement (items) by community (rural and urban), and number of students taught (up to 30 students and more than 30 students)

Items	*Community*	*M*	*SD*	*Number of Students Taught*	*M*	*SD*
How often parents attend Individualized Education Program (IEP) meetings.	Urban	2.46	0.78	Up to 30 students	1.95	0.71
	Rural	1.96	0.65	More than 30 students	2.03	0.66
How often parents visit school to ask about their child's academic progress.	Urban	2.85	0.99	Up to 30 students	2.32	0.80
	Rural	2.18	0.61	More than 30 students	2.17	0.55
How often parents reply to my WhatsApp messages when communication is about their child.	Urban	3.00	0.00	Up to 30 students	2.90	0.64
	Rural	3.05	0.58	More than 30 students	3.16	0.45
How often parents initiate WhatsApp messages to me asking about their child's academic progress.	Urban	3.23	0.73	Up to 30 students	2.79	0.72
	Rural	2.74	0.62	More than 30 students	2.78	0.58
	Urban	2.92	0.28	Up to 30 students	2.79	0.41

How often parents support their child with assignments at home.	Rural	2.91	0.42	More than 30 students	2.99	0.39

Note. The response options for these statements were: Never (1), Rarely (2), Often (3), Always (4). M and SD are used to represent mean and standard deviation, respectively.

Degree held

As displayed in Table 11, regardless of the degree held, the least common experiences with parental involvement were in-person forms, including visiting the school to ask about their child's academic progress and attending IEP meetings. A number of differences between the teachers in terms of the most commonly rated experiences, on average, are worth noting. For example, teachers with a diploma in special education reported parents inquiring about their child's academic progress via WhatsApp as the second most common form of parental involvement, whereas teachers with a bachelor's degree reported the second most common form of parental involvement being parents supporting their child with assignments at home. Another difference was that teachers with a graduate degree reported parents inquiring about their child's academic progress via WhatsApp as the first most common form of parental involvement, whereas teachers with a diploma and a bachelor's degree reported parents replying to WhatsApp messages pertaining to their child as the most common parental involvement experience. In addition, teachers with a diploma degree and a graduate degree reported parents supporting their child with assignments at home as the third most common parental involvement experience, whereas teachers with a bachelor's degree reported parents inquiring about their child's academic progress via WhatsApp messages as the third common parental involvement experience.

Table 11

Means and standard deviations for type of parental involvement (items) by degree held (diploma, bachelor, graduate)

Items	*Diploma*		*Bachelor's degree*		*Graduate degree*	
	M	*SD*	*M*	*SD*	*M*	*SD*
How often parents attend Individualized Education Program (IEP) meetings.	1.72	0.96	2.03	0.65	2.39	0.57
How often parents visit school to ask about their child's academic progress.	2.11	0.76	2.19	0.55	2.05	0.86
How often parents reply to my WhatsApp messages when communication is about their child.	3.22	1.00	3.01	0.45	3.08	0.49
How often parents initiate WhatsApp messages to me asking about their child's academic progress.	3.11	0.76	2.57	0.50	3.16	0.68
How often do parents support their child with assignments at home.	3.00	0.00	2.86	0.45	2.97	0.37

Note. The response options for these statements were: Never (1), Rarely (2), Often (3), Always (4). M and SD are used to represent mean and standard deviation, respectively.

Grade levels

As displayed in Table 12, from first to sixth grade, teachers of students with LD reported similarly common experiences with the various forms of parental involvement across grade levels, at least in terms of mean item rankings on the experience subscale. The results reflect those of the overall sample.

Table 12

Means and standard deviations for type of parental involvement (items) by grade levels

Item	*First grade*		*Second grade*		*Third grade*		*Fourth grade*		*Fifth grade*		*Sixth grade*	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
How often parents attend Individualized Education Program (IEP) meetings.	2.15	0.75	1.97	0.63	1.96	0.65	1.86	0.69	2.00	0.69	2.16	0.69
How often parents visit school to ask about their child's academic progress.	2.25	0.55	2.14	0.64	2.19	0.74	2.21	0.73	2.27	0.67	2.42	0.69
How often parents reply to my WhatsApp messages when communication	3.10	0.55	3.07	0.53	3.07	0.55	3.03	0.57	3.08	0.56	2.95	0.62

is about their child.												
How often parents initiate WhatsApp messages to me asking about their child's academic progress.	2.80	0.62	2.83	0.66	2.78	0.64	2.76	0.64	2.77	0.65	2.79	0.71
How often parents support their child with assignments at home.	2.90	0.45	2.90	0.41	2.89	0.42	2.93	0.37	2.92	0.39	2.89	0.46

Note. The response options for these statements were: Never (1), Rarely (2), Often (3), Always (4). M and SD are used to represent mean and standard deviation, respectively.

Inferential Statistics

Findings From the Sample of Teachers Working with Students With LD

Likely due to restricted sample size, initial visual (see appendix A) and descriptive analyses of scores for all pertinent subscales (e.g., experiences) with participants who reported working with students with LD seemed to indicate considerable heterogeneity of variance in scores. Therefore, non-parametric tests (i.e., Welch's t-test or Kruskal-Wallis test, depending on the number of groups being compared) were elected to assess potential differences in experiences, obstacles (*second research question*), and attitudes (*third research question*) based on key variables of interest (e.g., sex, school location). The results of each of these tests are therefore discussed as evidence to further shed light on parental involvement and other pertinent factors for special education and general education teachers who work with students with LD in Jazan province, KSA. The findings appear in table 13.

Sex. A Welch's two sample t-test was used to compare mean scores for the experience subscale between female and male participants. Results from this test suggested no significant difference in average experiences with parental involvement were demonstrable between female and male participants ($p = .68$).

General/Special Education Teaching Status (Role). Similar to the previous variable, potential differences in experience based on participants' self-identified teaching role were assessed using a Welch's two sample t-test. Results from this test indicated there was no significant difference in average experiences with parental involvement reported between general education teachers

working with students with LD and special education teachers working with students with LD (p = .99).

Years of Teaching. Participants in the sample were categorized into one of two groups, based on years of teaching experience: one group with 10 years of teaching experience or less; and another group with more than 10 years of teaching experience. This was done to make the sizes of these groups more equal, because there were wide discrepancies in group size with the original increments (i.e., units of years of teaching, e.g., less than 5 years, 5 to 10 years), and creating groups with similar size increases the statistical power of the hypothesis test (Cohen, 1992). A Welch's t-test was used to assess potential differences in mean scores on the experience subscale between these groups of participants. Results from this test suggested the difference in average experiences reported between relatively new teachers and veteran teachers was not significant (p = .16).

Degree Held. In order to assess potential differences in experiences with parental involvement between teachers with different types of degree, a Kruskal-Wallis test was used as a non-parametric alternative to standard ANOVA to compare mean scores on the experience subscale between teachers of students with LD based on 3 different groups, separated by the type of degree they reported obtaining. Results from this test indicated the differences in average experiences with parental involvement reported between these groups were not statistically significant (p = .09).

Grade-Level Taught. In order to assess potential differences in experiences with parental involvement based on the grade-level they reported teaching, a Kruskal-Wallis test was selected

as a non-parametric alternative to ANOVA and applied to compare mean scores on the experience subscale between six groups, separated by grade level. The results of this test indicated there were no significant differences in average experiences with parental involvement reported between teachers of students with LD based on grade level ($p = .93$).

School Community. Average experiences with parental involvement for teachers of students with LD were also compared by the type of community (urban or rural) participants reported teaching in. A Welch's two sample t-test was selected as a non-parametric method for comparing mean scores on the experiences subscale between teachers who reported being located in urban schools and teachers located in rural schools. Results from this test indicated teachers from urban schools reporting significantly higher average experiences ($M = 14.46$) compared to teachers from rural schools ($M = 12.84$, $p < .05$).

Number of Students Taught. Similar to the decision to divide participants into one of two groups, based on years of experience, participants were also divided into one of two groups: those who worked with 30 students with disabilities throughout their career and those who worked with more than 30 students with disabilities throughout their career. This decision was made in order to make the size of each group as similar as possible, which strengthens the statistical power of the hypothesis test (Cohen, 1992). A Welch's two sample t-test was selected to compare mean scores on the experience subscale between these groups. Results from this test indicated there was no significant difference in the average experiences reported by teachers of students with LD based on the number of students they've worked with throughout their career ($p = .29$).

Table 13

Non- parametric analysis for sex, role, years of experience, degree held, grade taught, school community, and number students taught in relation to experience with parental involvement

Variable	*T Value*	*P Value*	*95% Confidence Interval (Lower Bound)*	*95% Confidence Interval (Upper Bound)*
Sex	0.41	0.68	-0.506	0.77
Role	-0.01	0.99	-0.55	0.54
Years of experience	1.40	0.16	-0.18	1.09
Degree	3.85	0.14	NA[a]	NA[a]
Grade Taught	1.34	0.93	NA[a]	NA[a]
School Community	2.54	0.02*	0.25	2.99
Number of Students Taught	1.07	0.28	-0.32	1.07

Note. Sex includes male and female. Role includes special and general education teachers. Years of experience includes up to 10 years and more than 10 years. Degree includes diploma, bachelor's degree, and graduate degrees. Grade taught includes from 1st grade to 6th grade. School community includes urban and rural areas. Number of students taught includes up to 30 students and more than 30 students. * indicates $p < .05$. [a] for variables assessed using the Kruskal Wallis t-test, confidence intervals could not be displayed due to formatting issues, as such tests produce more than one confidence interval.

Research Question 2

From the perspective of these teachers, what are the current obstacles preventing parental involvement?

Given the importance of parental involvement for student achievement and performance, as well as the particular interest of the present research endeavor, it seemed important to explore potential factors that could be undermining the processes associated with parental involvement. As such, two types of obstacles were explored in the survey, with one type representing common issues pertaining to parents, and the other type representing common issues pertaining to teachers and/or the school generally. Items hypothesized to measure these common issues were used to derive an obstacles subscale score, representing the overall level of obstacles to parental involvement perceived by each participant.

Descriptive analysis

Additional preliminary descriptive analysis of items pertaining to obstacles was conducted to evaluate which obstacles were most prevalent amongst teachers working with students with LD. The results of this descriptive analysis are outlined next.

Overall sample

In Table 14, the survey items are ranked based on mean ratings from the sample of teachers who reported working with students with LD, arranged in descending order (i.e., highest mean rating to lowest mean rating). The SD was also calculated for each item and included alongside the mean. The three highest ranked obstacles are regarding parents' lack of knowledge about their legal rights that would enable them to be involved with school ($M = 2.94$, $SD = 0.49$)

(a *parent-level obstacle*), followed by parents' limited education hinders their ability to become actively involved (M = 2.89, SD = 0.63) (a *parent-level obstacle*), and then the lack of school policy hinders parental involvement (M = 2.84, SD = 0.85) (a *school- teacher obstacle*). On the other hand, the lowest obstacles are regarding that schools do not provide information on communication channels for mothers seeking to contact their sons' teachers or fathers wanting to communicate with their daughters' teachers (schools are separated based on sex) (M = 2.24, SD = 0.56) (a *school- teacher obstacle*), followed by teachers lack knowledge of the legal rights that grant parents the ability to be involved with the school (M = 2.11, SD = 0.51) (a *school- teacher obstacle*), and then teachers perceive little value for parental involvement in the school (M = 1.90, SD = 0.53) (a *school- teacher obstacle*). Interestingly, the highest-ranking obstacles are related to parents and lowest ranking obstacles are related to schools and teachers.

Table 14

Ranking of the parent obstacles and school- teacher obstacles for the overall sample of teachers working with students with LD

Item	*M*	*SD*
1. Parents lack knowledge about their legal rights that would enable them to be involved with school (P)	2.94	0.49
2. Parents' limited education hinders their ability to become actively involved (P)	2.89	0.63
3. The lack of school policy hinders parental involvement (S)	2.84	0.85
4. Parents struggle to find sufficient time to increase their involvement with the school (P)	2.72	0.60

5.	The lack of professional development training for teachers hinders parental involvement (S)	2.72	0.72
6.	Parents face challenges in getting involved with the school due the lack of transportation, especially mothers (P)	2.68	0.50
7.	Teachers do not emphasize to the parents the importance of their involvement in the IEP development process (S)	2.67	0.65
8.	There is a lack of timely communication with parents prior to the IEP meeting (S)	2.65	0.58
9.	Teachers do not invite parents to the IEP meetings (S)	2.62	0.71
10.	Parents face challenges in getting involved with the school due to living far away from the school (P)	2.60	0.72
11.	Teachers struggle to involve parents due to their heavy workload and do not have enough time (S)	2.53	0.67
12.	Social obstacles such as divorce hinder some parents from being (P)	2.38	0.72
13.	Parents perceive little value in getting involved with the schools (P)	2.36	0.71
14.	Teachers do not provide information on communication channels for mothers seeking to contact their sons' teachers or fathers wanting to communicate with their daughters' teachers (*schools are separated based on sex*) (S)	2.24	0.56
15.	Teachers lack knowledge of the legal rights that grant parents the ability to be involved with the school (S)	2.11	0.51
16.	Teachers perceive little value for parental involvement in the school (S)	1.90	0.53

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). P and S are used to represent parent obstacles and school- teacher obstacles, respectively.

In general, obstacles presented by parents tended to be rated more highly among participants compared to obstacles that pertained more to the teachers or school. This could indicate a substantial number of the obstacles hindering parental involvement lie with the parents, or that teachers view obstacles as primarily related to parents rather than teachers or the

school per se. Among the school/teacher-level obstacle items, participants rated schools' lack of parental involvement policy the highest on average.

Male teachers

As Table 15 shows, among the sample of male teachers who specifically work with students with LD, the most common parent-related obstacle reported was parents' lack of knowledge about their legal rights that would enable them to be involved with school (M = 2.98, SD = 0.50), followed by parents' limited education (M = 2.79, SD = 0.47), and then parents' struggle to allocate sufficient time to become involved with the school (M = 2.79, SD = 0.57). In terms of school/teacher-related obstacles, the most common obstacle reported was a lack of school policy (M = 2.88, SD = 0.54), followed by a lack of professional development training for teachers (M = 2.71, SD = 0.68), and then teachers' lack of emphasizing to the parents the importance of their involvement in the IEP development process (M = 2.70, SD =0.73).

Female teachers

As Table 15 displays, among the sample of female teachers of students with LD specifically, the most common parent-related obstacle reported was parents' limited education (M = 3.18, SD = 0.69), followed by the lack of transportation, especially mothers, (M = 2.84, SD = 0.55), and then parents' lack of knowledge of their legal rights pertaining to their child's education (M = 2.81, SD = 0.46). In terms of school/teacher-related obstacles, the most common reported obstacle was a lack of school policy hinders parental involvement, as well as a lack of professional development training for teachers hinders parental involvement (two items have the same M = 2.74, SD = 0.76, 0.86), followed by teachers not inviting parents to the IEP meetings

and teachers not emphasizing to parents the importance of their involvement in the IEP development process (both items have the same $M = 2.66$, $SD = 0.94, 0.71$). The third highest school/teacher-related obstacle was teachers' heavy workload and lack of time precluding them from facilitating involvement ($M = 2.53$, $SD = 0.56$).

Special and general education

As shown in Table 15, the most common school-teacher related obstacles were similar between special education teachers specialized in LD and general education teachers working with students with LD: a lack of school policy. Several differences between the special education teachers specialized in LD and general education teachers working with students with LD in terms of the most common obstacles, on average, are worth noting. For example, the most common parent-related obstacle reported by special education teachers was parents' lack of knowledge of their legal rights pertaining to their child's education, whereas the most common obstacle reported by general education teachers was parents' limited education. Also, the second and third most common parent-related obstacles between special education teachers and general education teacher are different. For the special education teachers specialized in LD, the second-most-common parent-related obstacle was parents struggling to allocate sufficient time to become involved with the school, whereas for the general education teachers working with LD students, the lack of transportation, especially mothers, was the second common parent-related obstacle. In addition, the third common obstacle for the special education teachers was the parents' limited education, whereas general education teachers reported social obstacles, such as divorce, as the third most common parent-related obstacle.

Years of experience

As shown in Table 15, a couple of minor differences between the teachers with 10 years of experience or less and teachers with more than 10 years of experience in terms of the most common parent and school-teacher related obstacles, on average, are worth noting. For teachers with 10 years of experience or less, the most common parent-related obstacle was parents' limited education, whereas this obstacle was rated the third common obstacle for the group of teachers with more than 10 years of experience. The most common obstacle for teachers with more than 10 years of experience was parents' lack of knowledge of their legal rights pertaining to their child's education. In addition, the second most common obstacle for the group of teachers with 10 years of experience or less was parents' lack of knowledge of their legal rights pertaining to their child's education, whereas teachers with more than 10 years of experience reported parents' struggle to allocate sufficient time to become involved with the school was ranked as the second common obstacle.

With respect to school/teacher-related obstacles, the second most-common obstacle was teachers' heavy workload and lack of time precluding them from facilitating involvement for the group of teachers with 10 years of experience or less, whereas those with more than 10 years of experience reported teachers not inviting parents to the IEP meetings as the second-most-common school/teacher-related obstacle. In addition, for the group of teachers with 10 years of experience or less the lack of professional development training was the third-most-common school/teacher-related obstacle, whereas teachers not emphasizing to the parents the importance

of their involvement in the IEP development process was ranked the third-most-common school/teacher related obstacle for the group of teachers with more than 10 years of experience.

Table 15

Means and standard deviations for sex (male and female), role (general education teachers and special education teachers), and years of experience (up to 10 years and more than 10 years) related to perceived obstacles to parental involvement

Items	*Sex*	*M*	*SD*	*Role*	*M*	*SD*	*Experience*	*M*	*SD*
1. Parents lack knowledge about their legal rights that would enable them to be involved with school.	Male	2.98	0.50	General	2.82	0.39	Up to 10 years	3.00	0.46
	Female	2.82	0.46	Special	2.99	0.53	More than 10 years	2.90	0.51
2. Social obstacles such as divorce hinder some parents from being.	Male	2.35	0.60	General	2.64	0.48	Up to 10 years	2.52	0.50
	Female	2.50	0.51	Special	2.28	0.58	More than 10 years	2.30	0.61
3. Parents struggle to find sufficient time to increase	Male	2.79	0.47	General	2.64	0.53	Up to 10 years	2.67	0.51

	their involvement with the school.								
		Female	2.55	0.55	Special	2.76	0.49	More than 10 years	2.76	0.50
4.	Parents' limited education hinders their ability to become actively involved.	Male	2.79	0.57	General	3.22	0.70	Up to 10 years	3.12	0.73
		Female	3.18	0.69	Special	2.75	0.53	More than 10 years	2.75	0.51
5.	Parents perceive little value in getting involved with the schools.	Male	2.32	0.67	General	2.58	0.62	Up to 10 years	2.36	0.61
		Female	2.50	0.65	Special	2.28	0.67	More than 10 years	2.37	0.71
6.	Parents face challenges in getting involved with the school due to living far away from the school.	Male	2.56	0.71	General	2.64	0.48	Up to 10 years	2.91	0.39
		Female	2.71	0.65	Special	2.58	0.77	More than 10 years	2.40	0.77

7. Parents face challenges in getting involved with the school due the lack of transportation, especially mothers.	Male	2.63	0.75	General	3.00	0.52	Up to 10 years	2.95	0.69
	Female	2.84	0.55	Special	2.54	0.73	More than 10 years	2.51	0.67
8. Teachers lack knowledge of the legal rights that grant parents the ability to be involved with the school.	Male	2.13	0.56	General	1.98	0.15	Up to 10 years	2.05	0.51
	Female	2.08	0.36	Special	2.17	0.60	More than 10 years	2.15	0.51
9. Teachers perceive little value for parental involvement in the school.	Male	1.88	0.58	General	1.93	0.25	Up to 10 years	1.91	0.60
	Female	1.95	0.32	Special	1.89	0.61	More than 10 years	1.89	0.48

10. Teachers struggle to involve parents due to their heavy workload and do not have enough time.	Male	2.54	0.76	General	2.44	0.62	Up to 10 years	2.66	0.58
	Female	2.53	0.56	Special	2.57	0.74	More than 10 years	2.46	0.78
11. The lack of school policy hinders parental involvement.	Male	2.88	0.54	General	2.71	0.79	Up to 10 years	2.62	0.62
	Female	2.74	0.76	Special	2.90	0.50	More than 10 years	2.98	0.55
12. The lack of professional development training for teachers hinders parental involvement.	Male	2.71	0.68	General	2.60	0.75	Up to 10 years	2.60	0.56
	Female	2.74	0.86	Special	2.77	0.71	More than 10 years	2.79	0.81
13. Teachers do not invite parents to the IEP meetings.	Male	2.61	0.82	General	2.56	0.81	Up to 10 years	2.31	0.73

	Female	2.66	0.94	Special	2.65	0.87	More than 10 years	2.82	0.86
14. Teachers do not emphasize to the parents the importance of their involvement in the IEP development process.	Male	2.70	0.73	General	2.58	0.54	Up to 10 years	2.50	0.57
	Female	2.66	0.71	Special	2.73	0.79	More than 10 years	2.80	0.79
15. Schools do not provide information on communication channels for mothers seeking to contact their sons' teachers or fathers wanting to communicate with their daughters' teachers (*schools are separated based on sex*).	Male	2.27	0.55	General	2.16	0.52	Up to 10 years	2.31	0.60
	Female	2.16	0.59	Special	2.28	0.58	More than 10 years	2.20	0.54

16. There is a lack of timely communication with parents prior to the IEP meeting (e.g., reaching out to the parents only a week before the IEP meetings).	Male	2.68	0.63	General	2.36	0.57	Up to 10 years	2.52	0.63
	Female	2.32	0.62	Special	2.69	0.66	More than 10 years	2.63	0.66

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively.

Urban vs rural location

As shown in Table 16, the most common parent-related obstacle reported by both urban and rural teachers was parents' lack of knowledge of their legal rights (M = 3.00, 2.93, SD = 0.00, 0.52, respectively), followed by parents' limited education (M = 2.85, 2.90, SD = 0.80, 0.61, respectively). In terms of school/teacher-related obstacles, the most common obstacle reported by urban teachers was teachers' heavy workload and lack of time (M = 2.85, SD = 0.80), followed by the lack of school policy for parental involvement (M = 2.38, SD = 0.87), and then lack of timely communication with parents prior to the IEP meeting (M = 2.31, SD = 0.48). For rural teachers, the highest average rated school/teacher related obstacle was a lack of school policy hinders parental involvement (M = 2.88, SD = 0.56), followed by a lack of professional development training for teachers (M = 2.77, SD = 0.72), and then teachers not emphasizing to parents the importance of their involvement in the IEP development process (M = 2.73, SD = 0.72).

Number of students with LD taught

As presented in Table 16, some differences in the most common obstacles reported by teachers who have worked with more than 30 students with LD and those who have worked with fewer than 30 students with LD throughout their career are worth noting. For example, whereas the teachers who have worked with more than 30 students with disabilities reported parents' lack of knowledge of legal rights as the most common parent-related obstacle, teachers who work with 30 or fewer students with LD reported parents' limited education as the most common parent-related obstacle. In addition, the former group reported a lack of school policy as the most

common school/teacher-related obstacle to parental involvement, whereas the latter group reported teachers not emphasizing to the parents the importance of their involvement in the IEP development process as the most common school/teacher-related obstacle to parental involvement.

Table 16

Means and standard deviations for community (rural and urban), and number of students taught (up to 30 students and more than 30 students)

Items	*Community*	*M*	*SD*	*Students Taught*	*M*	*SD*
1. Parents lack knowledge about their legal rights that would enable them to be involved with school.	Urban	3.00	0.00	Up to 30 students	2.97	0.39
	Rural	2.93	0.52	More than 30 students	2.90	0.61
2. Social obstacles such as divorce hinder some parents from being.	Urban	2.46	0.48	Up to 30 students	2.33	0.60
	Rural	2.36	0.58	More than 30 students	2.46	0.53
3. Parents struggle to find sufficient time to increase their involvement with the school.	Urban	2.69	0.66	Up to 30 students	2.67	0.50
	Rural	2.75	0.48	More than 30 students	2.81	0.50

4. Parents' limited education hinders their ability to become actively involved.	Urban	2.85	0.80	Up to 30 students	3.15	0.56
	Rural	2.90	0.61	More than 30 students	2.54	0.53
5. Parents perceive little value in getting involved with the schools.	Urban	1.92	0.28	Up to 30 students	2.36	0.66
	Rural	2.41	0.68	More than 30 students	2.38	0.68
6. Parents face challenges in getting involved with the school due to living far away from the school.	Urban	2.46	0.52	Up to 30 students	2.69	0.56
	Rural	2.61	0.71	More than 30 students	2.48	0.84
7. Parents face challenges in getting involved with the school due the lack of transportation, especially mothers.	Urban	2.46	1.27	Up to 30 students	2.93	0.52
	Rural	2.70	0.63	More than 30 students	2.33	0.78
8. Teachers lack knowledge of the	Urban	1.54	0.52	Up to 30 students	2.25	0.46

legal rights that grant parents the ability to be involved with the school.						
	Rural	2.17	0.48	More than 30 students	1.92	0.52
9. Teachers perceive little value for parental involvement in the school.	Urban	1.54	0.52	Up to 30 students	1.99	0.44
	Rural	1.93	0.52	More than 30 students	1.78	0.61
10. Teachers struggle to involve parents due to their heavy workload and do not have enough time.	Urban	2.85	0.80	Up to 30 students	2.49	0.68
	Rural	2.50	0.70	More than 30 students	2.59	0.75
11. The lack of school policy hinders parental involvement.	Urban	2.38	0.87	Up to 30 students	2.85	0.58
	Rural	2.88	0.56	More than 30 students	2.83	0.64
12. The lack of professional	Urban	2.23	0.60	Up to 30 students	2.83	0.61

development training for teachers hinders parental involvement.						
	Rural	2.77	0.72	More than 30 students	2.57	0.84
13. Teachers do not invite parents to the IEP meetings.	Urban	1.69	0.75	Up to 30 students	2.86	0.73
	Rural	2.71	0.81	More than 30 students	2.29	0.89
14. Teachers do not emphasize to the parents the importance of their involvement in the IEP development process.	Urban	2.23	0.60	Up to 30 students	2.89	0.60
	Rural	2.73	0.72	More than 30 students	2.41	0.80
15. Schools do not provide information on communication channels for mothers seeking to contact their sons' teachers or fathers wanting to communicate with	Urban	2.08	0.49	Up to 30 students	2.30	0.55

their daughters' teachers (*schools are separated based on sex*).						
	Rural	2.26	0.57	More than 30 students	2.16	0.57
16. There is a lack of timely communication with parents prior to the IEP meeting (e.g., reaching out to the parents only a week before the IEP meetings).	Urban	2.31	0.48	Up to 30 students	2.67	0.54
	Rural	2.61	0.66	More than 30 students	2.48	0.76

Note. Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively

Degree held

As shown in Table 17, all groups converged in their agreement on the most prevalent school/teacher-related obstacle being a lack of school policy pertaining to parental involvement. Beyond this top-rated average obstacle, teachers with a diploma in special education reported teachers' not emphasizing to parents the importance of involvement in the IEP development process as the second most-prevalent school/teacher-related obstacle, whereas those with a bachelor's or graduate degree reported a lack of professional development trainings as the second-most-common school/teacher-related obstacle.

Table 17

Means and standard deviations for degree held (diploma, bachelor, graduate)

Items	*Diploma*		*Bachelor's degree*		*Graduate degree*	
	M	*SD*	*M*	*SD*	*M*	*SD*
1. Parents lack knowledge about their legal rights that would enable them to be involved with school.	2.67	0.49	2.88	0.48	3.21	0.41
2. Social obstacles such as divorce hinder some parents from being.	2.72	0.46	2.27	0.59	2.53	0.51
3. Parents struggle to find sufficient time to increase their involvement with the school.	3.11	0.47	2.70	0.48	2.61	0.50
4. Parents' limited education hinders their ability to become actively involved.	2.61	0.50	3.01	0.66	2.74	0.50

5. Parents perceive little value in getting involved with the schools.	1.83	0.71	2.41	0.68	2.50	0.51
6. Parents face challenges in getting involved with the school due to living far away from the school.	2.28	1.13	2.71	0.54	2.47	0.73
7. Parents face challenges in getting involved with the school due the lack of transportation, especially mothers.	1.94	0.80	2.84	0.59	2.63	0.71
8. Teachers lack knowledge of the legal rights that grant parents the ability to be involved with the school.	1.67	0.49	2.12	0.35	2.32	0.70
9. Teachers perceive little value for parental involvement in the school.	1.61	0.78	1.85	0.36	2.16	0.64

10. Teachers struggle to involve parents due to their heavy workload and do not have enough time.	2.33	0.97	2.49	0.67	2.74	0.64
11. The lack of school policy hinders parental involvement.	2.83	0.71	2.81	0.61	2.92	0.54
12. The lack of professional development training for teachers hinders parental involvement.	2.00	1.03	2.78	0.64	2.92	0.54
13. Teachers do not invite parents to the IEP meetings.	1.94	1.00	2.65	0.71	2.87	0.93
14. Teachers do not emphasize to the parents the importance of their involvement in the IEP development process.	2.44	1.15	2.64	0.57	2.92	0.78
15. Schools do not provide information on communication channels for mothers seeking to	2.11	0.90	2.23	0.50	2.32	0.53

contact their sons' teachers or fathers wanting to communicate with their daughters' teachers (*schools are separated based on sex*).						
16. There is a lack of timely communication with parents prior to the IEP meeting (e.g., reaching out to the parents only a week before the IEP meetings).	2.28	0.96	2.57	0.56	2.76	0.63

Note. Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively.

Grade levels

The mean and SD of obstacles reported by teachers at different grade-levels of teaching are displayed in Table 18. Across all grades levels, teachers reported the most common parent-related obstacle reported was parents' limited education or parents' lack of knowledge of their legal rights pertaining to their child's education. In terms of school/teacher-related obstacles, across all grade levels, teachers reported that among the three most commonly reported obstacles were a lack of school policy, teachers not emphasizing to the parents the importance of their involvement in the IEP development process, or teachers not inviting parents to the IEP meetings.

Table 18

Means and standard deviations for grade levels

Item	*First grade*		*Second grade*		*Third grade*		*Fourth grade*		*Fifth grade*		*Sixth grade*	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
1. Parents lack knowledge about their legal rights that would enable them to be involved with school.	2.85	0.37	2.97	0.50	2.93	0.47	2.93	0.53	2.96	0.53	3.00	0.58
2. Social obstacles such as divorce hinder some parents from being.	2.50	0.61	2.34	0.61	2.41	0.57	2.31	0.54	2.35	0.56	2.47	0.61
3. Parents struggle to find sufficient time to increase their	2.60	0.60	2.69	0.47	2.70	0.47	2.79	0.49	2.77	0.51	2.79	0.54

involvement with the school.	3.10	0.64	2.97	0.73	2.93	0.68	2.83	0.54	2.73	0.53	2.84	0.60
4. Parents' limited education hinders their ability to become actively involved.	2.15	0.75	2.41	0.63	2.41	0.64	2.34	0.67	2.38	0.64	2.47	0.77
5. Parents perceive little value in getting involved with the schools.	2.70	0.57	2.62	0.73	2.56	0.70	2.55	0.74	2.58	0.70	2.63	0.76
6. Parents face challenges in getting involved with the school due to living far away from the school.												

7. Parents face challenges in getting involved with the school due the lack of transportation, especially mothers.	2.90	0.64	2.69	0.76	2.67	0.78	2.59	0.68	2.65	0.63	2.63	0.76
8. Teachers lack knowledge of the legal rights that grant parents the ability to be involved with the school.	2.05	0.51	2.34	0.61	2.26	0.53	2.21	0.56	2.12	0.52	2.11	0.57
9. Teachers perceive little value for parental involvement in the school.	1.80	0.52	2.62	0.62	1.89	0.51	2.59	0.68	1.96	0.53	1.89	0.57
10. Teachers struggle to involve	2.50	0.76	2.52	0.69	2.56	0.70	2.66	0.72	2.58	0.76	2.32	0.67

	parents due to their heavy workload and do not have enough time.											
11.	The lack of school policy hinders parental involvement.	2.65	0.67	2.79	0.56	2.81	0.56	2.93	0.59	2.92	0.63	2.89	0.66
12.	The lack of professional development training for teachers hinders parental involvement.	2.55	0.76	2.76	0.69	2.78	0.70	2.79	0.73	2.73	0.72	2.63	0.83
13.	Teachers do not invite parents to the IEP meetings.	2.60	0.88	2.69	0.76	2.67	0.78	2.59	0.91	2.54	0.86	2.63	1.01
14.	Teachers do not emphasize to the parents	2.65	0.75	2.72	0.70	2.67	0.68	2.72	0.75	2.65	0.75	2.68	0.82

	the importance of their involvement in the IEP development process.											
15.	Schools do not provide information on communication channels for mothers seeking to contact their sons' teachers or fathers wanting to communicate with their daughters' teachers (*schools are separated based on sex*).	2.15	0.67	2.34	0.61	2.26	0.53	2.21	0.56	2.23	0.51	2.21	0.54
16.	There is a lack of timely	2.50	0.69	2.62	0.62	2.56	0.58	2.59	0.68	2.58	0.64	2.68	0.75

communication with parents prior to the IEP meeting (e.g., reaching out to the parents only a week before the IEP meetings).						

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively.

Inferential Statistics

Findings

Like the previous section on experiences with parental involvement, the process of statistical and data analysis also was conducted to assess potential differences in obstacles reported by both special and general education teachers who specifically work with students with LD. Initial visual (see appendix A) and descriptive analyses of participants' responses indicated considerable heterogeneity of variance in scores for the obstacles subscale, and non-parametric tests were therefore selected (i.e., Welch's t-test and Kruskal-Wallis test, depending on the number of groups being compared) to assess potential differences in perceived obstacles between participants based on relevant variables (e.g., sex, school location). The findings appear in Table 19.

Sex. A Welch's two sample t-test was used to compare mean scores for the obstacles subscale between male and female teachers who work with students with LD. Results from this test suggested there was no significant difference in average obstacles reported between female and male teachers who work with students with LD ($p = .90$).

General/Special Education Teaching Status (Role). A Welch's two sample t-test was used to compare mean scores for the obstacles subscale between general and special education teachers who work with students with LD. Results from this test suggested no significant differences in average obstacles were reported between general and special education teachers working with students with LD ($p = .96$).

Years of Teaching. Potential differences in mean scores on the obstacles subscale between relatively new and veteran teachers was assessed using a Welch's t-test of differences of means. Results from this test suggested the difference in average experiences reported between relatively new teachers and veteran teachers was not significant ($p = .76$).

Degree Held. The average level of obstacles reported by teachers of students with LD were also compared based on the type of degree they reported obtaining. A Kruskal-Wallis test was selected as a non-parametric alternative to ANOVA and used to compare mean scores on the obstacles subscale based on three groups of participants, separated by degree type. Results from this test suggested there was a significant difference between at least two groups. A post-hoc analysis of pairwise comparisons using Wilcoxon rank sum test with continuity correction indicated teachers with a graduate degree reported significantly higher average obstacles ($M = 42.61$) compared to teachers with a bachelor's degree ($M = 40.97$, $p < .05$). The difference in average obstacles reported between teachers with a graduate degree and teachers with a diploma in special education ($M = 36.39$) approached statistical significance ($p = .06$).

Grade-Level Taught. Average obstacles reported by teachers were also compared based on the grade-level of students participants reported working with. A Kruskal-Wallis test was selected as a non-parametric alternative to ANOVA to compare mean scores on the obstacles subscale between six groups of participants, based on grade-level taught. Results from this test indicated there were no significant differences in average obstacles reported between teachers at any grade-level of teaching.

School Community. The degree to which obstacles were reported by teachers of students with LD was also compared between participants who indicated working in urban schools and those who indicated working in rural schools. A Welch's two sample t-test was selected as a non-parametric method for assessing differences in means between these two groups, based on their mean scores on the obstacles subscale. Results from this test indicated teachers of students with LD reported significantly higher average obstacles in urban schools ($M = 41.23$) compared to teachers of students with LD in rural schools ($M = 36.69$, $p < .05$).

Number of Students Taught. A comparison in the average level of obstacles reported between teachers who worked with 30 or fewer students with disabilities throughout their career and teachers who worked with more than 30 students with disabilities was conducted using a Welch's t-test. The results of this test indicated teachers who worked with 30 students or fewer with disabilities or less reported significantly higher average obstacles ($M = 42.22$) compared to teachers who worked with 30 students with disabilities or more ($M = 38.92$, $p < .01$).

Table 19

Non- parametric analysis for sex, role, years of experience, degree held, grade taught, school community, and number students taught in relation to obstacles of parental involvement

Variable	*T Value*	*P Value*	*95% Confidence Interval (Lower Bound)*	*95% Confidence Interval (Upper Bound)*
Sex	0.13	0.90	-1.71	1.95
Role	0.06	0.96	-1.66	1.76
Years of Teaching	0.31	0.76	-1.63	2.23
Degree	8.36	0.02*	NA[a]	NA[a]
Grade Taught	0.33	1.00	NA[a]	NA[a]
School Community	2.43	0.03*	0.52	8.55
Number of Students Taught	3.31	0.001*	1.32	5.28

Note. Sex includes male and female. Role includes special and general education teachers. Years of experience includes up to 10 years and more than 10 years. Degree includes diploma, bachelor's degree, and graduate degrees. Grade taught includes from 1st grade to 6th grades. School community includes urban and rural areas. Number of students taught includes up to 30 students and more than 30 students. * indicates $p < .05$. [a] for variables assessed using the Kruskal Wallis t-test, confidence intervals could not be displayed due to formatting issues, as such tests produce more than one confidence interval.

Research Question 3

What are the attitudes of these teachers toward parental involvement and parental empowerment?

Part of understanding the current nature of parental involvement revolves around attitudes held by relevant individuals responsible for participating in and facilitating key

processes. Therefore, the attitudes of participants with regard to parental involvement, as well as the closely associated parental empowerment, served as key constructs used to understand how teachers in Jazan province, KSA, currently perceived parental involvement, how these perceptions and beliefs might influence current levels of parental involvement, and how other extraneous factors might impact these perceptions and beliefs.

Descriptive analysis

Additional preliminary descriptive analysis of items pertaining to teachers' attitudes toward parental involvement and parental empowerment were conducted for the special education teachers and general education teachers who reported working with students with LD. The results of this descriptive analysis are discussed next.

Overall sample

As presented in Table 20, the three highest-ranked items in the parental involvement subscale, based on average ratings, included *parental involvement is critical to the academic development of the student with LD* (M = 2.89, SD = 0.35), followed by *parental involvement is critical to the behavioral development of the student with LD* (M = 2.77, SD = 0.42), and then *teachers should facilitate parental involvement* (M = 2.70, SD = 0.46). The three lowest items regarding attitudes toward parental involvement included *teachers should initiate parental involvement* (M = 2.37, SD = 0.51), *parental involvement is critical to the social development of the student with LD* (M = 1.77, SD = 0.42), and then *parental involvement will help me as a teacher to effectively support students with LD* (M = 1.75, SD = 0.44) as presented in table 20.

With respect to parental empowerment, the three highest-ranking items for teachers' attitudes toward parental empowerment included *parents should be able to contribute to the decision-making process regarding their child's education* (*M* = 3.26, *SD* = 0.44), followed by *teachers should provide information to parents regarding their child's disability to enhance their self-efficacy about LD* (*M* = 2.75, *SD* = 0.47), and then *teachers should support parents to express their opinions about their child's education* (*M* = 2.67, *SD* = 0.47). On the other hand, the lowest three items pertaining to attitudes towards parental empowerment included *parents should be able to voice their concerns to me* (*M* = 2.33, *SD* = 0.52), followed by *teachers should support parents to advocate for their child with education rights* (*M* = 2.29, *SD* = 0.54), and then *teachers should provide parents with information regarding their child's educational progress to enhance their self-efficacy about their child's education* (*M* = 1.80, *SD* = 0.40).

Table 20

Ranking of attitudes toward parental involvement and parental empowerment for the overall sample

	Item	*M*	*SD*
1.	I believe that parental involvement is critical to the academic development of the student with LD (I)	2.86	0.35
2.	I believe that parental involvement is critical to the behavioral development of the student with LD (I)	2.77	0.42
3.	I believe that parental involvement is critical to the social development of the student with LD (I)	1.77	0.42
4.	I believe that as a teacher I should facilitate parental involvement (I)	2.70	0.46

5.	I believe that parental involvement will help me as a teacher to effectively support students with LD (I)	1.75	0.44
6.	I believe that teachers should initiate parental involvement (I)	2.37	0.51
7.	I believe that parents should initiate involvement (I)	2.70	0.46
8.	I believe that as a teacher I should support parents to express their opinions about their child's education (E)	2.67	0.47
9.	I believe that parents should be able to voice their concerns to me (E)	2.33	0.52
10.	I believe that parents should be able to contribute to the decision-making process regarding their child's education (E)	3.26	0.44
11.	I believe that I should provide parents with information regarding their child's disability to enhance their self-efficacy about LD (E)	2.75	0.47
12.	I believe that I should provide parents with information regarding their child's educational progress to enhance their self-efficacy about their child's education (E)	1.80	0.40
13.	I believe that schools should provide training/ workshops to parents to enhance their self-efficacy on their child disabilities, the importance of their involvement with the school, and methods of how they can get involved with the school (E)	2.38	0.55
14.	I believe that as a teacher I should provide parents with martials at least one week before the IEP meeting to help them actively participate during the IEP meeting (E)	2.43	0.50
15.	I believe that as a teacher I should support parents to advocate for their child with education rights (E)	2.29	0.54

Note. The response options for these statements were: strongly agree, agree, disagree, strongly disagree. I and E are used to represent items about attitudes toward parental involvement and parental empowerment, respectively.

Male and female

As shown in Table 21, amongst male teachers of students with LD, the highest-ranking item was that *parental involvement is critical to the academic development of the student with*

LD (*M* = 2.86, *SD* = 0.35), followed by *parents should initiate involvement* (*M* = 2.80, *SD* = 0.40), and then *teachers should facilitate parental involvement* (*M* = 2.79, *SD* = 0.41). Female teachers of students with LD had the same highest-ranked item pertaining to attitudes towards parental involvement (*M* = 2.87, *SD* = 0.34), although this was followed by *parental involvement is critical to the behavioral development of the student with LD* (*M* = 2.86, *SD* = 0.34), and then *teachers should facilitate parental involvement* (*M* = 2.42, *SD* = 0.50).

As displayed in Table 22, in terms of parental empowerment, male and female teachers of students with LD had similar mean-item rankings. The highest ranking item was that *parents should be able to contribute to the decision-making process regarding their child's education* (*M* = 3.29, 3.16, *SD* = 0.46, 0.37, for male and female respectively), followed by *teachers should provide parents with information regarding their child's disability to enhance their self-efficacy about LD* (*M* = 2.76, 2.71, *SD* = 0.47, 0.46, for male and female respectively), and then *teachers should support parents to express their opinions about their child's education* (*M* = 2.74, 2.47, *SD* = 0.44, 0.51, for male and female respectively).

General and special education teachers

Regarding the attitudes toward parental involvement amongst special education teachers, the three highest-rated items, on average, included the belief that *parental involvement is critical to the academic development of the student with LD*, *teachers should facilitate parental involvement*, and *parents should initiate involvement* as presented in Table 21. Interestingly, each of these top three items had the same average rating amongst special education teachers (*M* = 2.84); however, the SD between special education teachers on the first item was (0.29), whereas

the SD of ratings between special education teachers on the second and third items was (0.49). Therefore, there was more agreement amongst special education teachers regarding the belief that *parental involvement is critical to the academic development of students with LD*, whereas there was relatively less agreement amongst special education teachers regarding the belief that *the teacher should facilitate parental involvement* and the *belief that parents should initiate involvement.*

In contrast, amongst general education teachers working with students with LD, the highest rated items pertaining to parental involvement, on average, included *parental involvement being critical to the academic* ($M = 2.91$, $SD = 0.37$) and *behavioral development* ($M = 2.91$, $SD = 0.46$) of the student with LD. The difference in SD between these two items indicate there was relatively higher consensus (i.e., agreement between teachers) on the belief that parental involvement is critical to the academic development of students with LD, and there was relatively lower consensus on the belief that parental involvement is critical to the behavioral development of students with LD. Two items also tied as the second-highest ranking, based on average rating: *parents should initiate involvement* ($M = 2.38$, $SD = 0.37$); and *teachers should facilitate parental involvement* ($M = 2.38$, $SD = 0.37$). The fact these items had identical standard deviations indicates the attitudes of general education teachers were the same with respect to both of these belief statements.

General education and special education teachers have similar item-rankings with respect to attitudes towards parental empowerment, based on average ratings as shown in Table 22. The highest ranking item regarding teachers' attitudes toward parental empowerment was that

parents should be able to contribute to the decision-making process regarding their child's education (*M* = 3.29, 3.25, and *SD* = 0.46, 0.43, for general education teachers and special education teachers, respectively), followed by *teachers should provide parents with information regarding their child's disability to enhance their self-efficacy about LD* (*M* = 2.73 and 2.75, *SD* = 0.48, 0.45 for general education teachers and special education teachers, respectively), and then *teachers should support parents to express their opinions about their child's education* (*M* = 2.53 and 2.73 *SD* = 0.50, 0.44 for general education teachers and special education teachers, respectively).

Years of experience

As presented in Table 21, for teachers with 10 years of experience or less, the highest-ranking item regarding teachers' attitudes toward parental involvement was that *parental involvement is critical to the academic and behavioral development of the student with LD* (both items have the same *M* and *SD*; *M* = 2.91, *SD* = 0.28), followed by *teachers should facilitate parental involvement (M* = 2.59, *SD* = 0.50), and then *parents should initiate involvement* (*M* = 2.52, *SD* = 0.50). With respect to teachers with more than 10 years of experience in education, the highest-ranking item was that *parental involvement is critical to the academic development of the student with LD* (*M* = 2.83, *SD* = 0.38), followed by *parents should initiate involvement* (*M* = 2.82, *SD* = 0.39), and then *teachers should facilitate parental involvement* (*M* = 2.77, *SD* = 0.42).

Both groups had similar highest-ranked items pertaining to attitudes toward parental empowerment, as shown in Table 22. The highest ranking item was that *parents should be able*

to contribute to the decision-making process regarding their child's education (*M* = 3.22, 3.28, *SD* = 0.42, 0.45, for up to 10 years and more than 10 years respectively), followed by the item of *teachers should provide parents with information regarding their child's disability to enhance their self-efficacy about LD* (*M* = 2.71, 2.77, *SD* = 0.46, 0.47, for up to 10 years and more than 10 years respectively), and then *teachers should support parents to express their opinions about their child's education* (*M* = 2.55, 2.75, *SD* = 0.50, 0.44, for up to 10 years and more than 10 years respectively).

Table 21

Means and standard deviations for sex (male and female), role (general education teachers and special education teachers), and years of experience (up to 10 years and more than 10 years) for API

Items	*Sex*	*M*	*SD*	*Role*	*M*	*SD*	*Experience*	*M*	*SD*
1. I believe that parental involvement is critical to the academic development of the student with LD.	Male	2.86	0.35	General	2.91	0.37	Up to 10 years	2.91	0.28
	Female	2.87	0.34	Special	2.84	0.29	More than 10 years	2.83	0.38
2. I believe that parental involvement is critical to the behavioral development of the student with LD.	Male	2.73	0.44	General	2.91	0.46	Up to 10 years	2.91	0.28
	Female	2.87	0.34	Special	2.70	0.29	More than 10 years	2.67	0.47

3. I believe that parental involvement is critical to the social development of the student with LD.	Male	1.79	0.41	General	1.78	0.42	Up to 10 years	1.93	0.26
	Female	1.74	0.45	Special	1.77	0.42	More than 10 years	1.67	0.47
4. I believe that as a teacher I should facilitate parental involvement.	Male	2.79	0.41	General	2.38	0.37	Up to 10 years	2.59	0.50
	Female	2.42	0.50	Special	2.84	0.49	More than 10 years	2.77	0.42
5. I believe that parental involvement will help me as a teacher to effectively support students with LD.	Male	1.83	0.38	General	1.53	0.37	Up to 10 years	1.66	0.48
	Female	1.50	0.51	Special	1.84	0.50	More than 10 years	1.80	0.40
	Male	2.44	0.53	General	2.27	0.49		2.21	0.49

6. I believe that teachers should initiate parental involvement.							Up to 10 years		
	Female	2.16	0.37	Special	2.41	0.54	More than 10 years	2.47	0.50
7. I believe that parents should initiate involvement.	Male	2.80	0.40	General	2.38	0.37	Up to 10 years	2.52	0.50
	Female	2.39	0.50	Special	2.84	0.49	More than 10 years	2.82	0.39

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively.

Table 22

Means and standard deviations for sex (male and female), role (general education teachers and special education teachers), and years of experience (up to 10 years and more than 10 years) for APE

Items	*Sex*	*M*	*SD*	*Role*	*M*	*SD*	*Experience*	*M*	*SD*
1. I believe that as a teacher I should support parents to express their opinions about their child's education.	Male	2.74	0.44	General	2.53	0.50	Up to 10 years	2.55	0.50
	Female	2.47	0.51	Special	2.73	0.44	More than 10 years	2.75	0.44
2. I believe that parents should be able to voice their concerns to me.	Male	2.33	0.54	General	2.53	0.50	Up to 10 years	2.21	0.55
	Female	2.32	0.47	Special	2.24	0.51	More than 10 years	2.40	0.49
3. I believe that parents should	Male	3.29	0.46	General	3.29	0.46	Up to 10 years	3.22	0.42

	be able to contribute to the decision-making process regarding their child's education.									
		Female	3.16	0.37	Special	3.25	0.43	More than 10 years	3.28	0.45
4.	I believe that I should provide parents with information regarding their child's disability to enhance their self-efficacy about LD.	Male	2.76	0.47	General	2.73	0.45	Up to 10 years	2.71	0.46
		Female	2.71	0.46	Special	2.75	0.48	More than 10 years	2.77	0.47
5.	I believe that I should provide parents with information regarding their child's educational	Male	1.79	0.41	General	1.80	0.40	Up to 10 years	1.72	0.45

	progress to enhance their self-efficacy about their child's education.									
		Female	1.82	0.39	Special	1.80	0.40	More than 10 years	1.85	0.36
6.	I believe that schools should provide training/ workshops to parents to enhance their self-efficacy on their child disabilities, the importance of their involvement with the school, and methods of how they can get involved with the school.	Male	2.42	0.58	General	2.47	0.50	Up to 10 years	2.29	0.46
		Female	2.26	0.45	Special	2.34	0.57	More than 10 years	2.43	0.60

7.	I believe that as a teacher I should provide parents with martials at least one week before the IEP meeting to help them actively participate during the IEP meeting.	Male	2.46	0.50	General	2.44	0.50	Up to 10 years	2.26	0.44
		Female	2.34	0.48	Special	2.42	0.50	More than 10 years	2.53	0.50
8.	I believe that as a teacher I should support parents to advocate for their child with education rights.	Male	2.29	0.56	General	2.44	0.50	Up to 10 years	2.29	0.46
		Female	2.32	0.47	Special	2.23	0.54	More than 10 years	2.29	0.58

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively.

Rural vs urban locations

Both urban and rural areas have similar mean-item rankings regarding attitudes toward parental involvement and parental empowerment as displayed in Tables 23 and 24. With respect to parental involvement, the highest ranked item was that *parental involvement is critical to the academic development of the student with LD* (*M* = 2.85, 2.92, *SD* = 0.35, 0.28, for urban and rural areas respectively), followed by the item of *parental involvement is critical to the behavioral development of the student with LD* (*M* = 2.75, 2.92, *SD* = 0.43, 0.28, for urban and rural areas respectively), and then *the item of parents should initiate involvement* (*M* = 2.69, 2.77, *SD* = 0.46, 0.44, for urban and rural areas respectively). In terms of the highest ranking item regarding teachers' attitudes toward parental empowerment, the first highest-ranked item was that *parents should be able to contribute to the decision-making process regarding their child's education* (*M* = 3.25, 3.38, *SD* = 0.43, 0.51, for urban and rural areas respectively), followed by *teachers should provide parents with information regarding their child's disability to enhance their self-efficacy about LD* (*M* = 2.74, 2.77, *SD* = 0.47, 0.44, for urban and rural areas respectively), and then *teachers should support parents to express their opinions about their child's education* (*M* = 2.66, 2.77, *SD* = 0.47, 0.44, for urban and rural areas respectively).

Number of students taught

As presented in Tables 23 and 24, the highest ranking item amongst teachers of students with LD who have worked with 30 students with LD or fewer was that *parental involvement is critical to the academic development of the student with LD* (*M* = 2.91, *SD* = 0.29), followed by *the item of teachers should provide parents with information regarding their child's disability to*

enhance their self-efficacy about LD (*M* = 2.84, *SD* = 0.37), and then *teachers should facilitate parental involvement* (*M* = 2.64, *SD* = 0.48). Although teachers of students with LD who have worked with more than 30 students with LD throughout their career had similar mean-item rankings for the first highest item (*M* = 2.79, *SD* = 0.41), and third highest item (*M* = 2.78, *SD* = 0.42), the second highest ranking item was that *parents should initiate involvement* (*M* = 2.79, *SD* = 0.41). In terms of the highest three items ranking pertaining to the attitudes toward parental empowerment, both groups have similar ranking. The highest ranking item was that *parents should be able to contribute to the decision-making process regarding their child's education* (*M* = 3.24, 3.29, *SD* = 0.43, 0.46, respectively), followed by the item of *teachers should provide parents with information regarding their child's disability to enhance their self-efficacy about LD* (*M* = 2.82, 2.65, *SD* = 0.39, 0.54, respectively), and then *teachers should support parents' ability to express their opinions about their child's education* (*M* = 2.71, 2.62, *SD* = 0.46, 0.49, respectively).

Table 23

Means and standard deviations for community (rural and urban), and number of students taught (up to 30 students and more than 30 students) for API

Items	*Community*	*M*	*SD*	*Students Taught*	*M*	*SD*
1. I believe that parental involvement is critical to the academic development of the student with LD.	Urban	2.85	0.35	Up to 30 students	2.91	0.29
	Rural	2.92	0.28	More than 30 students	2.79	0.41
2. I believe that parental involvement is critical to the behavioral development of the student with LD.	Urban	2.75	0.43	Up to 30 students	2.84	0.37
	Rural	2.92	0.28	More than 30 students	2.67	0.48
3. I believe that parental involvement is critical to the social	Urban	1.76	0.43	Up to 30 students	1.85	0.36

	development of the student with LD.						
		Rural	1.92	0.28	More than 30 students	1.67	0.48
4.	I believe that as a teacher I should facilitate parental involvement.	Urban	2.69	0.46	Up to 30 students	2.64	0.48
		Rural	2.77	0.44	More than 30 students	2.78	0.42
5.	I believe that teachers should initiate parental involvement.	Urban	1.74	0.44	Up to 30 students	1.72	0.45
		Rural	1.77	0.44	More than 30 students	1.78	0.42
6.	I believe that parents should initiate involvement.	Urban	2.39	0.49	Up to 30 students	2.30	0.51
		Rural	2.08	0.64	More than 30 students	2.46	0.50
7.	I believe that parents should initiate involvement.	Urban	2.69	0.46	Up to 30 students	2.63	0.49
		Rural	2.77	0.44	More than 30 students	2.46	0.50

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively.

Table 24

Means and standard deviations for community (rural and urban), and number of students taught (up to 30 students and more than 30 students) for APE

Items	*Community*	*M*	*SD*	*Students Taught*	*M*	*SD*
1. I believe that as a teacher I should support parents to express their opinions about their child's education.	Urban	2.66	0.47	Up to 30 students	2.62	0.49
	Rural	2.77	0.44	More than 30 students	2.71	0.46
2. I believe that parents should be able to voice their concerns to me	Urban	2.34	0.53	Up to 30 students	2.17	0.52
	Rural	2.23	0.44	More than 30 students	2.44	0.50
3. I believe that parents should be able to contribute to the decision-making process regarding their child's education	Urban	3.25	0.43	Up to 30 students	3.29	0.46
	Rural	3.38	0.51	More than 30 students	3.24	0.43

4. I believe that I should provide parents with information regarding their child's disability to enhance their self-efficacy about LD.	Urban	2.74	0.47	Up to 30 students	2.65	0.54
	Rural	2.77	0.44	More than 30 students	2.82	0.39
5. I believe that I should provide parents with information regarding their child's educational progress to enhance their self-efficacy about their child's education.	Urban	1.80	0.40	Up to 30 students	1.71	0.46
	Rural	1.77	0.44	More than 30 students	1.86	0.35
6. I believe that schools should provide training/ workshops to parents to enhance their self-efficacy on their child disabilities, the	Urban	2.38	0.56	Up to 30 students	2.24	0.59

	importance of their involvement with the school, and methods of how they can get involved with the school.						
		Rural	2.38	0.51	More than 30 students	2.48	0.50
7.	I believe that as a teacher I should provide parents with martials at least one week before the IEP meeting to help them actively participate during the IEP meeting.	Urban	2.45	0.50	Up to 30 students	2.37	0.49
		Rural	2.23	0.44	More than 30 students	2.47	0.50
8.	I believe that as a teacher I should support parents to advocate for their child with education rights.	Urban	2.30	0.55	Up to 30 students	2.16	0.57
		Rural	2.23	0.44	More than 30 students	2.39	0.49

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively.

Degree held

As displayed in Tables 24 and 25, some interesting similarities and differences between these groups of teachers in terms of attitudes are worth noting briefly. For example, each group differed in the highest-ranked attitude toward parental involvement: teachers with a bachelor's degree indicated *parental involvement being critical to academic development*; teachers with a diploma in special education indicated *teachers should facilitate parental involvement*; and teachers with a graduate degree indicated *parents should initiate parental involvement*. However, the groups were consistent in terms of the highest-rated item pertaining to attitudes towards parental empowerment, on average: that *parents should be able to contribute towards the decision-making progress regarding their child's education.*

Table 25

Means and standard deviations for degree held (diploma, bachelor, graduate) for API

Items	*Diploma*		*Bachelor's degree*		*Graduate degree*	
	M	*SD*	*M*	*SD*	*M*	*SD*
1. I believe that parental involvement is critical to the academic development of the student with LD.	2.94	0.24	2.86	0.35	2.82	0.39
2. I believe that parental involvement is critical to the behavioral development of the student with LD.	2.72	0.46	2.80	0.40	2.71	0.46
3. I believe that parental involvement is critical to the social development of the student with LD.	1.78	0.43	1.80	0.40	1.71	0.46
4. I believe that as a teacher I should facilitate parental involvement.	3.00	0.00	2.62	0.49	2.76	0.43

5. I believe that parental involvement will help me as a teacher to effectively support students with LD.	2.00	0.00	1.63	0.49	1.92	0.27
6. I believe that teachers should initiate parental involvement.	2.56	0.51	2.29	0.50	2.47	0.51
7. I believe that parents should initiate involvement.	3.00	0.00	2.59	0.50	2.84	0.37

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively.

Table 26

Means and standard deviations for degree held (diploma, bachelor, graduate) for APE

Items	*Diploma*		*Bachelor's degree*		*Graduate degree*	
	M	*SD*	*M*	*SD*	*M*	*SD*
1. I believe that as a teacher I should support parents to express their opinions about their child's education.	2.39	0.50	2.67	0.47	2.82	0.39
2. I believe that parents should be able to voice their concerns to me.	2.33	0.49	2.34	0.56	2.29	0.46
3. I believe that parents should be able to contribute to the decision-making process regarding their child's education.	3.33	0.49	3.22	0.42	3.32	0.47
4. I believe that I should provide parents with information regarding their child's disability to	2.94	0.24	2.64	0.53	2.92	0.27

	enhance their self-efficacy about LD.					
5.	I believe that I should provide parents with information regarding their child's educational progress to enhance their self-efficacy about their child's education.	2.00	0.00	1.71	0.45	1.92	0.27
6.	I believe that schools should provide training/ workshops to parents to enhance their self-efficacy on their child disabilities, the importance of their involvement with the school, and methods of how they can get involved with the school.	2.39	0.50	2.32	0.57	2.53	0.51
7.	I believe that as a teacher I should provide parents with martials at least one week before the IEP meeting to help	2.39	0.50	2.41	0.50	2.47	0.51

	them actively participate during the IEP meeting.					
8.	I believe that as a teacher I should support parents to advocate for their child with education rights.	1.67	0.49	2.30	0.46	2.58	0.50

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). and SD are used to represent mean and standard deviation, respectively.

Grade levels

As displayed in Tables 26 and 27, item rankings based on mean ratings were similar amongst teachers across all six grade-levels of teaching. The highest-ranking item regarding teachers' attitudes toward parental empowerment was *that parents should be able to contribute to the decision-making process regarding their child's education*, followed by the item *teachers should provide parents with information regarding their child's disability to enhance their self-efficacy about LD*, and then *teachers should support parents to express their opinions about their child's education.*

Table 27

Means and standard deviations for grade levels for API

Item	*First grade*		*Second grade*		*Third grade*		*Fourth grade*		*Fifth grade*		*Sixth grade*	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
1. I believe that parental involvement is critical to the academic development of the student with LD.	2.85	0.37	2.83	0.38	2.85	0.36	2.90	0.31	2.85	0.37	2.89	0.32
2. I believe that parental involvement is critical to the behavioral development of the student with LD.	2.75	0.44	2.72	0.45	2.74	0.45	2.79	0.41	2.77	0.43	2.84	0.37
3. I believe that parental involvement is critical to the social development of the student with LD.	1.75	0.44	1.72	0.45	1.74	0.45	1.79	0.41	1.81	0.40	1.84	0.37
	2.60	0.50	2.62	0.49	2.67	0.48	2.79	0.41	2.73	0.45	2.79	0.42

4. I believe that as a teacher I should facilitate parental involvement.												
5. I believe that parental involvement will help me as a teacher to effectively support students with LD.	1.70	0.47	1.72	0.45	1.74	0.45	1.79	0.41	1.77	0.43	1.74	0.45
6. I believe that teachers should initiate parental involvement.	2.35	0.49	2.38	0.49	2.41	0.50	2.38	0.56	2.31	0.55	2.37	0.50
7. I believe that parents should initiate involvement.	2.65	0.49	2.66	0.48	2.74	0.45	2.76	0.44	2.69	0.47	2.68	0.48

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively

Table 28

Means and standard deviations for grade levels for APE

Item	*First grade*		*Second grade*		*Third grade*		*Fourth grade*		*Fifth grade*		*Sixth grade*	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
1. I believe that as a teacher I should support parents to express their opinions about their child's education.	2.60	0.50	2.62	0.49	2.63	0.49	2.72	0.45	2.69	0.47	2.79	0.42
2. I believe that parents should be able to voice their concerns to me.	2.40	0.50	2.34	0.55	2.33	0.55	2.28	0.53	2.27	0.53	2.37	0.50
3. I believe that parents should be able to contribute to the decision-	3.20	0.41	3.24	0.44	3.26	0.45	3.31	0.47	3.27	0.45	3.26	0.45

	making process regarding their child's education.											
4.	I believe that I should provide parents with information regarding their child's disability to enhance their self-efficacy about LD.	2.75	0.44	2.72	0.45	2.74	0.45	2.76	0.51	2.69	0.55	2.84	0.37
5.	I believe that I should provide parents with information regarding their child's educational progress to enhance their self-efficacy about their child's education.	1.80	0.41	1.76	0.44	1.78	0.42	1.83	0.38	1.81	0.40	1.84	0.37

6. I believe that schools should provide training/ workshops to parents to enhance their self-efficacy on their child disabilities, the importance of their involvement with the school, and methods of how they can get involved with the school.	2.40	0.50	2.34	0.55	2.37	0.56	2.38	0.56	2.42	0.58	2.37	0.60
7. I believe that as a teacher I should provide parents with martials at least one week before the IEP meeting to	2.40	0.50	2.38	0.49	2.41	0.50	2.45	0.51	2.46	0.51	2.47	0.51

	help them actively participate during the IEP meeting.											
8.	I believe that as a teacher I should support parents to advocate for their child with education rights.	2.30	0.57	2.34	0.55	2.37	0.56	2.28	0.53	2.23	0.51	2.21	0.54

Note. The response options for these statements were: strongly disagree (1), disagree (2), agree (3), strongly agree (4). M and SD are used to represent mean and standard deviation, respectively

Inferential Statistics

Findings

Similarly, to the other key constructs discussed earlier, initial visual (see appendix A) and descriptive analyses were conducted to assess the general status of participants' responses on items hypothesized to measure attitudes towards parental involvement (API) and attitudes towards parental empowerment (APE). Because of the heterogeneity of variance in participants' responses on both the API and APE with this sample, non-parametric tests (i.e., Welch's t-test or Kruskal-Wallis test, depending on the number of groups being compared) were selected to assess potential differences in scores on these two subscales based on key factors of interest. The results of these analyses are discussed presently. The findings appear in tables 29 and 30.

Sex. Welch's t-tests were utilized to assess potential differences in mean scores on the API and APE subscales between male and female participants. Results from the test of API subscale scores indicated there was a significant ($p < .01$) difference in average attitudes towards parental involvement between female ($M = 15.95$) and male ($M = 17.24$) participants who work with students with LD. However, results from the test of APE subscale scores indicated the difference in average attitudes towards parental empowerment between female ($M = 17.08$) and male ($M = 17.79$) participants was not significant ($p = .11$).

General/Special Education Teaching Status (Role). Welch's t-tests were employed to assess potential differences in mean scores for the API and APE subscales between participants who self-identified as being general education teachers and those who self-identified as being special education teachers. Results from the test of API subscale scores indicated there was a significant

($p < .01$) difference in average attitudes towards parental involvement between special education teachers ($M = 17.24$) and general education teachers ($M = 16.16$) who work with students with LD. However, the test exploring APE subscale scores indicated no significant difference in average attitudes towards empowerment was reported between special education and general education teachers who work with students with LD.

Teaching Experience. Potential differences in mean scores on the API and APE subscales between relatively new and veteran teachers was assessed using a Welch's t-test of differences of means. Results from the test of API subscale scores suggested the difference in average attitudes towards parental involvement reported between relatively new teachers and veteran teachers was not significant ($p = .39$). However, the subsequent test of APE subscale scores indicated the difference in average attitudes towards parental empowerment between relatively new teachers ($M = 16.97$) and veteran teachers ($M = 18.02$) was significant ($p < .05$).

Degree Held. A comparison in the average positive attitudes towards parental involvement and average attitudes towards parental empowerment was conducted based on the type of degree teachers of students with LD reported obtaining. Two separate Kruskal-Wallis tests were selected as non-parametric alternatives to ANOVA which included teachers' mean scores on the API and APE subscales as the dependent variables and the type of degree held as the dependent variable. The results of the first test indicated the difference in average attitudes towards involvement between at least two groups approached statistical significance ($p = .08$). A post-hoc analysis of pairwise comparisons using Wilcoxon rank sum test with continuity correction indicated the closest difference in terms of approaching statistical significance was between

teachers with a special education diploma (M = 18.0) and teachers with a bachelor's degree (M = 16.57, corrected p = .15). Comparisons between the other groups did not come close to statistical significance. Additionally, results from the second test indicated there were no significant differences in average attitudes towards empowerment reported between any of the groups (p = .13).

Grade-Level Taught. A comparison in average attitudes towards parental involvement, as well as average attitudes towards parental empowerment, was also conducted based on the grade-level of students participants reported working with. Two separate Kruskal-Wallis tests were selected as non-parametric alternatives to ANOVA to compare differences in mean scores for the API and APE subscales between groups of teachers of students with LD, based on the grade-level of students. Results from the first test indicated there were no significant differences in average attitudes towards involvement reported between teachers at any grade level. Results from the second test were similar, with no significant differences in average attitudes towards empowerment being reported between teachers at any grade level.

School Community. The average attitudes towards parental involvement, as well as the average attitudes towards parental empowerment, reported by teachers of students with LD were also compared based on the type of community (urban or rural) their school was located in. Two separate Welch's t-tests were completed as a non-parametric method for assessing the difference in mean scores on the API and APE subscales between participants who were located in urban and rural schools. Results from the first test indicated there was no significant difference in average attitudes towards involvement reported between teachers of students with LD in urban

schools compared to teachers of students with LD in rural schools (p = .69). Results from the second test were similar, where the difference in average attitudes towards parental empowerment between teachers of students with LD in urban schools and teachers of students with LD in rural schools was not statistically significant either (p = .90).

Number of Students Taught. A comparison in the average attitudes towards parental involvement and average attitudes towards parental empowerment was also conducted based on the number of students with disabilities teachers reported working with throughout their career. Two separate Welch's t-tests were conducted as non-parametric alternatives to compare differences in mean scores on the API and APE subscales between participants who reported working with 30 students with disabilities or fewer and participants who reported working with more than 30 students with disabilities. Results from the first test indicated there was no significant difference in the average attitudes towards parental involvement reported between teachers who worked with 30 students with disabilities or fewer and teachers who worked with more than 30 students with disabilities (p = .91). Results from the second test contrasted with the previous results, whereby teachers who worked with 30 students with disabilities or less reported higher average positive attitudes towards parental empowerment (M = 18.02) compared to teachers who worked with more than 30 students with disabilities (M = 17.05, p < .05).

Table 29

Non- parametric analysis for sex, role, years of experience, degree held, grade taught, school community, and number students taught in relation to attuites toward parental involvement

Variable	*T Value*	*P Value*	*95% Confidence Interval (Lower Bound)*	*95% Confidence Interval (Upper Bound)*
Sex	3.33	0.001*	0.52	2.07
Role	-2.79	0.01*	-1.85	-0.31
Teaching Experience	-0.86	0.39	-1.02	0.40
Degree	4.94	0.08*	NA[a]	NA[a]
Grade Taught	1.13	0.95	NA[a]	NA[a]
School Community	-0.40	0.69	-1.67	1.14
Number of Students Taught	-0.11	0.91	-0.77	0.69

Note. Sex includes male and female. Role includes special and general education teachers. Years of experience includes up to 10 years and more than 10 years. Degree includes diploma, bachelor's degree, and graduate degrees. Grade taught includes from 1st grade to 6th grades. School community includes urban and rural areas. Number of students taught includes up to 30 students and more than 30 students. * indicates $p < .05$. [a] for variables assessed using the Kruskal Wallis t-test, confidence intervals could not be displayed due to formatting issues, as such tests produce more than one confidence interval.

Table 30

Non- parametric analysis for sex, role, years of experience, degree held, grade taught, school community, and number students taught in relation to attitudes toward parental empowerment.

Variable	*T Value*	*P Value*	*95% Confidence Interval (Lower Bound)*	*95% Confidence Interval (Upper Bound)*
Sex	-1.62	0.11	-1.59	0.16
Role	0.60	0.55	-0.62	1.16
Teaching Experience	-2.56	0.01*	-1.87	-0.24
Degree	4.12	0.13	NA[a]	NA[a]
Grade Taught	0.50	0.99	NA[a]	NA[a]
School Community	0.13	0.90	-1.26	1.43
Number of Students Taught	2.40	0.02*	0.17	1.78

Note. Sex includes male and female. Role includes special and general education teachers. Years of experience includes up to 10 years and more than 10 years. Degree includes diploma, bachelor's degree, and graduate degrees. Grade taught includes from 1st grade to 6th grades. School community includes urban and rural areas. Number of students taught includes up to 30 students and more than 30 students. * indicates $p < .05$. [a] for variables assessed using the Kruskal Wallis t-test, confidence intervals could not be displayed due to formatting issues, as such tests produce more than one confidence interval.

Linear and Logistic Regression Modeling

After assessing variance in mean scores on the four primary subscales (*experience with parental involvement, obstacles preventing parental involvement, attitudes toward parental involvement, attitudes toward parental empowerment*) included in the study survey, follow-up statistical modeling using linear and logistic regression techniques were conducted to further

assess *the quantitative and correlational relationship* between certain variables of interest. Results from these correlational analyses, conducted by building regression models in R, are presented separately for each of these samples. Individual non-parametric tests were also utilized to assess differences between groups of teachers based on key variables of interest.

Several regression models were constructed and evaluated to assess the potential relationship between key factors discussed throughout this chapter. This included assessment of the association between the following: perceived obstacles, which were separated into parent-centered (i.e., obstacles directly pertaining to parents, such as limited education) and school/teacher-centered (i.e., obstacles directly pertaining to either teachers' own limitations or systemic obstacles presented by the school), attitudes towards involvement, and attitudes towards empowerment; experiences of parental involvement, attitudes towards parental involvement, and attitudes towards parental empowerment; attitudes towards involvement and attitudes towards empowerment; sex, school location, and the availability of school conferences for parents; and sex, school location, and the availability of volunteering opportunities for parents. Subsequent discussion of findings is organized according to each of these regression models.

Findings

Combined Obstacles and Attitudes Towards Parental Involvement. A linear regression model was constructed using this sample of teachers working with students with LD that included attitudes towards parental involvement (API) subscale score as the dependent variable and the sum score of the parent-level obstacles (PLO) and school/teacher-level obstacles (S/TO) as the dependent variable. Results from this model indicated there was no significant association

between the total amount of obstacles reported by teachers of students with LD and their attitudes towards involvement.

Parent-Level Obstacles and Attitudes Towards Involvement. A linear regression, correlational analysis, model was constructed using this sample of teachers working with students with LD which included API subscale score as the dependent variable and PLO subscale score as the independent variable. Results from this model indicated there was no significant association between the level of parent-level obstacles reported by teachers and their attitudes towards parental involvement ($p = .78$).

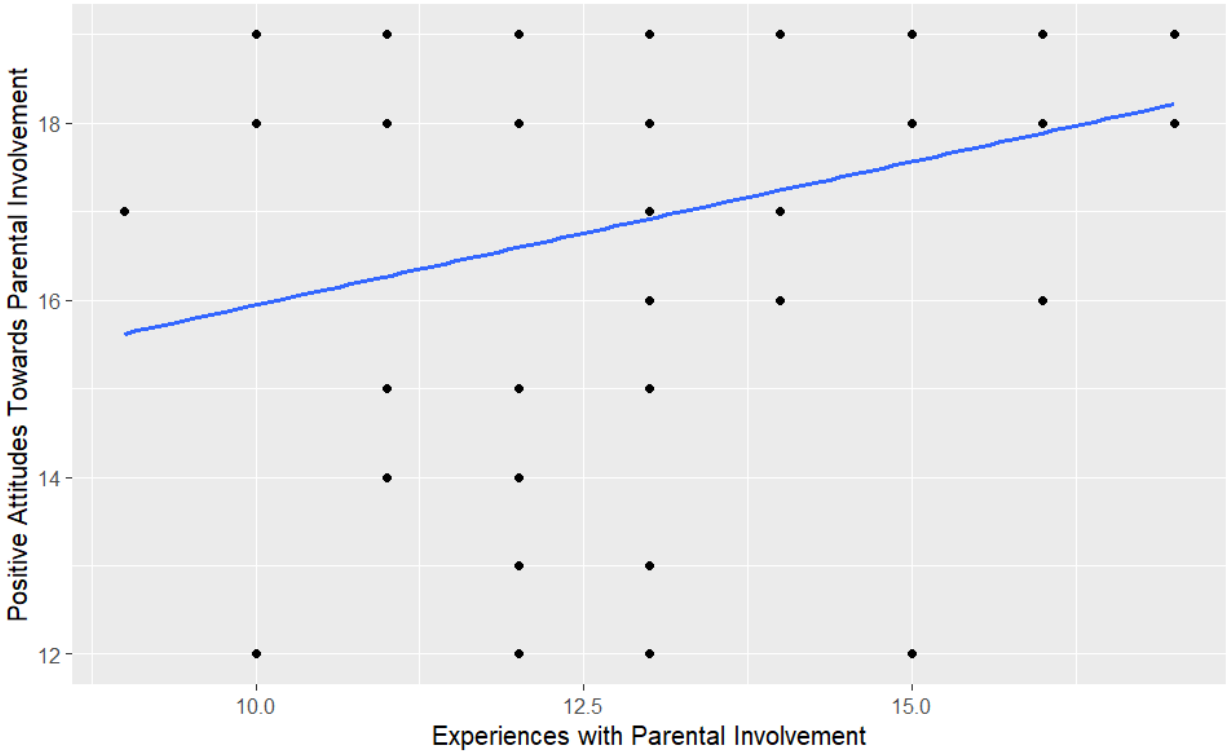
School/Teacher-Level Obstacles and Attitudes Towards Involvement. A linear regression model using the sample of teachers working with LD students was constructed which posited API subscale score as the dependent variable and S/TO subscale score as the independent variable in order to analyze the relationship between the level of school/teacher-level obstacles reported and attitudes towards parental involvement. Results from this model indicated there was no significant association between school/teacher-level obstacles and positive attitudes towards involvement ($p = .35$).

Experiences with Parental Involvement and Attitudes Towards Parental Involvement. To assess the relationship between the amount of experiences reported by teachers working with students with LD and attitudes towards involvement, a linear regression model was constructed which included API subscale score as the dependent variable and score on the experience subscale as the independent variable. As figure 3 shows, the results from this model indicated

greater amounts of experience with parental involvement was significantly associated with more positive attitudes towards parental involvement (estimate = 0.32, $p < .001$, t = 3.77).

Figure 3

Correlation between experience with parental involvement and attitudes towards involvement.



Parent-Level Obstacles and Attitudes Towards Empowerment. In order to analyze the relationship between parent-level obstacles and attitudes towards empowerment in teachers working with LD students, a linear regression model was built which used attitudes towards parental empowerment (APE) subscale score as the dependent variable and PLO subscale score as the independent variable. Results from this model indicated there was no significant

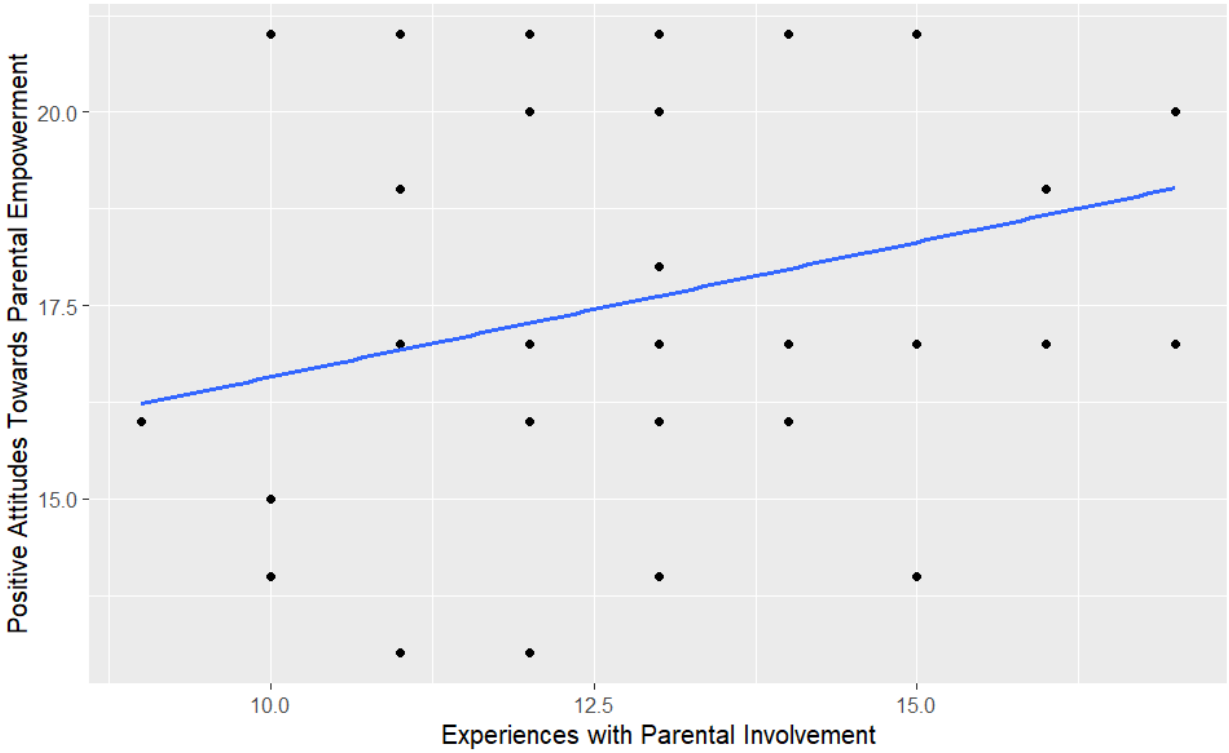
association between the degree of parent-level obstacles reported by teachers working with LD students and their attitudes towards parental empowerment ($p = .74$).

School/Teacher-Level Obstacles and Attitudes Towards Empowerment. A linear regression model using APE subscale score as the dependent variable and S/TO subscale score as the independent variable was constructed in order to assess the relationship between the degree of school/teacher-level obstacles reported by teachers working with students with LD and their attitudes towards parental empowerment. Results from this model indicated the association between school/teacher-level obstacles and positive attitudes towards empowerment approached statistical significance (estimate = 0.08, p = .08, $t = 1.78$).

Experiences With Parental Involvement and Attitudes Towards Empowerment. To assess the relationship between experiences with parental involvement reported by teachers working with students with LD and their attitudes towards parental empowerment, a linear regression model was constructed which included APE subscale score as the dependent variable and score on the experience subscale as the independent variable. As figure 4 illustrates, the results from this model indicated there was a significant, positive association between the amount of experiences teachers with students with LD reported with parental involvement and their positive attitudes towards parental empowerment (estimate = 0.35, $p < .001$, $t = 3.62$).

Figure 4

Correlation between experience with parental involvement and attitudes towards empowerment.



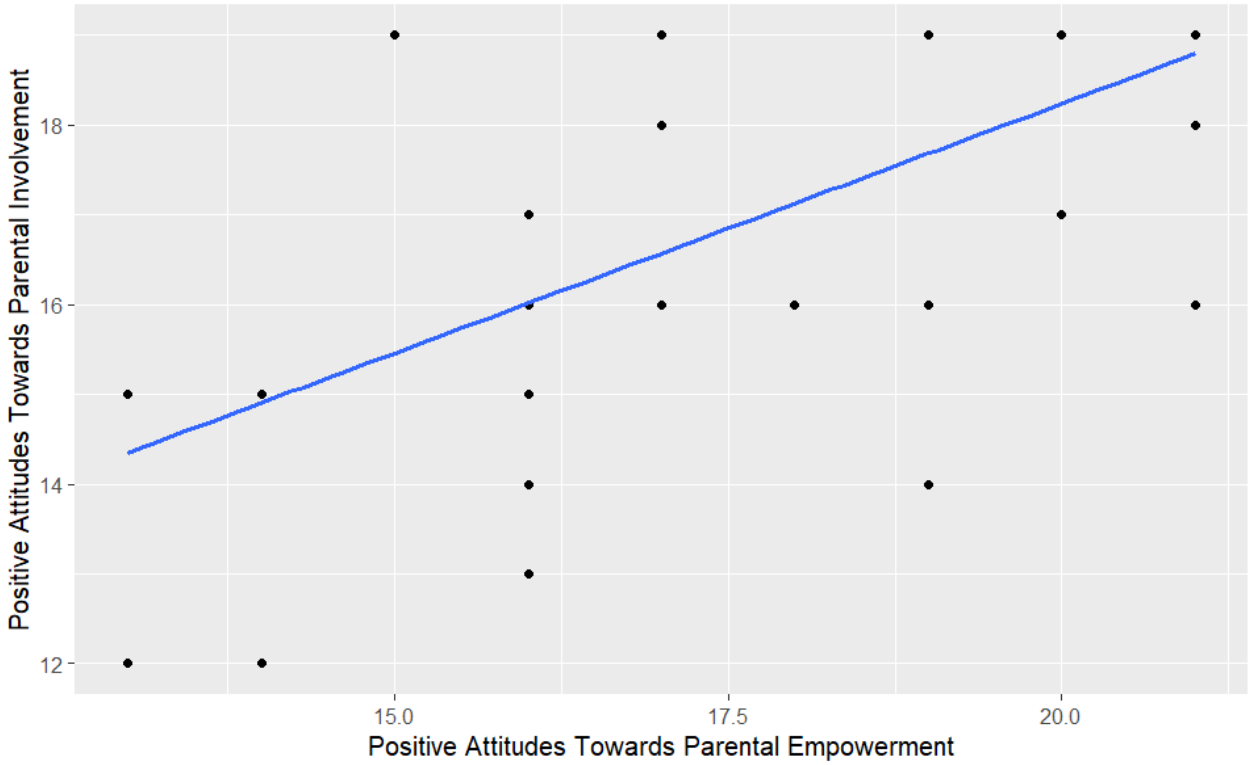
Experiences and Attitudes Towards Involvement, Controlling for Attitudes Towards Empowerment. Given that attitudes towards involvement and attitudes towards empowerment share a significant association with each other, it seemed appropriate to investigate the potential relationship between experiences with parental involvement and positive attitudes towards parental involvement while controlling for the effect of attitudes towards parental empowerment. Towards this aim, a linear regression model was constructed using API subscale score as the dependent variable and with the independent variables consisting of APE subscale score and

experiences subscale score. Results from this model indicated the association between attitudes towards empowerment and attitudes towards involvement remained significant (estimate = 0.52, $p < .001$, $t = 8.76$), while the association between attitudes towards involvement and experiences with involvement approached statistical significance (estimate = 0.14, $p = .05$, $t = 1.94$).

Attitudes Towards Involvement and Attitudes Towards Empowerment. To assess the relationship between positive attitudes towards parental involvement and attitudes towards parental empowerment for teachers of students with LD, a linear regression model was constructed which included participants' score on the API subscale as the dependent variable and APE subscale score as the independent variable. As figure 5 illustrates, results from this model suggest there is a significant, positive relationship between positive attitudes towards parental involvement and positive attitudes towards parental empowerment (estimate = 0.556, $p < .001$, $t = 9.624$).

Figure 5

Correlation between parental involvement and parental empowerment.



Attitudes Towards Involvement and Sex, Controlling for General/Special Education Status and School Community Type. To assess the potential relationship between relevant factors and the attitudes of teachers of students with LD towards parental involvement, a linear regression model was constructed using AI subscale score as the dependent variable and sex, school community, and general/special education status as independent variables. The results of this model indicated a significant relationship between sex and attitudes towards parental involvement, whereby female teachers tended to report less positive attitudes towards parental

involvement compared to male teachers (estimate = -0.937, t = -1.988, $p < .05$). This relationship between sex and attitudes towards parental involvement remained significant, even when controlling for the effects of school community and general/special education teaching status. In contrast, no significant relationship was observed between attitudes towards parental involvement and school community ($p = .57$) or attitudes towards parental involvement and general/special education teaching status ($p = .16$).

Attitudes Towards Empowerment and Sex, Controlling for General/Special Education Status and School Community Type.

In order to assess the potential relationship between relevant factors and teachers' attitudes towards parental empowerment, a linear regression model was constructed using APE subscale score as the dependent variable and sex, school community, and general/special education status as independent variables. The results of this model suggested there was no significant relationship between sex, school community, or general/special education status and teachers' subsequent attitudes towards empowerment.

Availability of Parent Conferences and Sex, Controlling for School Location. A logistic regression model using sex and school community type as the independent variables and teachers' response to the question "Does your school have school conferences during the academic year?" as the dependent variable was constructed to evaluate whether there was a significant difference in the probability of school conferences being offered between urban and rural schools and/or male and female schools. The results of the model indicated the probability of school conferences being offered was significantly lower amongst urban schools (estimate = -

1.682, z-value = -2.44, $p < .05$) compared to rural schools, although there was no significant difference in the probability between male and female schools ($p = .99$).

Availability of Volunteering Opportunities and Sex, Controlling for School Location. Similar to the previous logistic regression model, another logistic model using sex and school community type as independent variables and teachers' response to the question "Does your school organize volunteer activities so parents can participate in these activities?" as the dependent variable was constructed to evaluate whether there was a significant difference in the probability of parent volunteering opportunities being offered between urban and rural schools and/or male and female schools. Results from this model indicated there was no significant difference in the probability of volunteering opportunities for parents being offered between rural and urban schools ($p = .51$) or male and female schools ($p = .17$).

Summary

The present chapter covers the entirety of the data and statistical analysis that was conducted pertaining to the data collected in this research study. Given the extensive amount of statistical tests and models covered in this chapter, this summary will consist of only the main findings which were gleaned throughout the analysis process. These findings will also be organized according to the research questions used to guide the analysis process.

What are the experiences of teachers with parental involvement with parents of students with LD in Jazan province, Saudi Arabia?

Main Findings

Overall, there were several noteworthy themes extracted from the descriptive analysis of results from the responses of teachers of students with LD. Overall, the most common experiences with parental involvement reported amongst the participants involved parents replying to WhatsApp messages pertaining to their child, followed by parents supporting their child with assignments at home, and then parents using WhatsApp to inquire about their child's academic progress. In contrast, parents' involvement in-person at the school, whether visiting with teachers or attending IEP meetings, represented the least-common experiences reported by teachers of students with LD.

There was no significant difference in average experiences reported between male and female teachers of students with LD. Teachers of students with LD from rural schools reported significantly higher average experiences with parental involvement compared to teachers of students with LD from urban schools. This represented the only significant difference in average experiences with parental involvement between teachers of students with LD based on any variable.

From the perspective of these teachers, what are the current obstacles preventing parental involvement?

Main findings

Teachers who work with students with LD differed in the average amount of obstacles to parental involvement reported based on their degree. Teachers with a bachelor's degree reported significantly lower average obstacles compared to teachers with a graduate degree, and teachers with a diploma in special education also reported lower average obstacles compared to teachers

with a graduate degree, although this difference only approached statistical significance. In addition, teachers of students with LD from urban schools reported significantly higher average obstacles to parental involvement compared to teachers of students with LD from rural schools. Teachers of students with LD who have taught 30 students or fewer with disabilities throughout their career also reported significantly higher average obstacles to parental involvement compared to teachers who have worked with more than 30 students throughout their career.

Several noteworthy observations were made in the descriptive analysis of obstacles reported by teachers of students with LD. Teachers in both urban and rural schools reported parents' lack of knowledge regarding their legal rights and parents' limited education as the two most common parent-related obstacles to parental involvement. Teachers in both of these groups also agreed that the most common school/teacher-related obstacle is a lack of school policy regarding parental involvement. Male and female teachers agreed on two out of the top three most common parent-related obstacles, which was parents' lack of knowledge of their parental rights and parents' lack of education; however, female teachers rated parents' lack of transportation, especially mothers, as the second-most-common parent-related obstacle, whereas male teachers rated parents' lack of time as the third-most-common parent-related obstacle to parental involvement.

Other noteworthy observations derived from the descriptive analysis include the fact that teachers grouped by degree held (i.e., bachelor's, graduate, and diploma in special education) agreed parents' lack of knowledge of their parental rights was the most common parent-related obstacle to parental involvement, and that a lack of school policy and professional development

training for teachers were the two most common school/teacher-related obstacles to parental involvement. Between special education teachers and general education teachers working with students with LD, both groups agreed parents' limited education is a common parent-related obstacle, while a lack of school policy regarding parental involvement represented the most common school/teacher-related obstacle. Between teachers with 10 years of experience or less and teachers with more than 10 years of experience, both groups agreed parents' limited education and parents' lack of knowledge of their legal rights pertaining to their child's education were the two most common parent-related obstacles, while a lack of school policy regarding parental involvement represented the most common school/teacher-related obstacle. Teachers across all six grade-levels taught agreed that parents' limited education represented the most common parent-related obstacle and agreed that a lack of school policy was the most common school/teacher-related obstacle to parental involvement. Additionally, between teachers who have taught 30 students or fewer with disabilities and those who taught more than 30 students with disabilities throughout their careers, both groups agreed parents' lack of knowledge of parental rights represented the most common parent-related obstacle, whereas a lack of school policy regarding parental involvement represented the most common school/teacher-related obstacle.

What are the attitudes of these teachers toward parental involvement and parental empowerment?

Main findings

Male teachers of students with LD reported significantly higher average positive attitudes towards parental involvement compared to female teachers of students with LD. However, there was no significant difference in average attitudes towards parental empowerment between male and female teachers of students with LD. Special education teachers of students with LD reported significantly higher average positive attitudes towards involvement compared to general education teachers of students with LD. However, there was no difference between special and general education teachers of students with LD with regard to positive attitudes towards parental empowerment.

Teachers with more years of teaching experience reported significantly higher average positive attitudes towards parental empowerment compared to teachers with fewer years of teaching experience. However, there were no differences in average positive attitudes towards parental involvement between teachers of students with LD based on years of teaching experience. Teachers of students with LD did not differ in their attitudes towards parental involvement or parental empowerment based on whether they were located in urban or rural schools. Teachers of students with LD who taught 30 students or fewer with disabilities throughout their career reported higher average positive attitudes towards parental empowerment compared to teachers of students with LD who taught more than 30 students throughout their career. There was no significant difference in average positive attitudes towards involvement between teachers of students with LD between these two groups, however.

Some noteworthy findings from the descriptive analysis were also observed regarding teachers' attitudes towards parental involvement and parental empowerment. For example,

between teachers in urban schools and teachers in rural schools, both groups endorsed the belief that parental involvement is critical to the academic development of students with LD and that parents should initiate involvement as the highest-rated attitude as the two highest rated attitudes towards parental involvement, on average. Teachers in both rural and urban schools also rated *parents should be able to contribute to the decision-making process regarding their child's education* as the highest average attitude towards parental empowerment. Between male and female teachers of students with LD, both groups endorsed the belief that *parental involvement is critical to the academic development of students with LD* and that *teachers should facilitate parental involvement* as the two highest-rated attitudes towards parental involvement, on average. Both groups also reported the beliefs: *parents should be able to contribute to the decision-making process regarding their child's education*, *teachers should provide parents with information regarding their child's disability to enhance their self-efficacy about LD*, and that *teachers should support parents' expression of opinion about their child's education* as the three highest-rated attitudes towards parental empowerment, on average.

Teachers with a diploma in special education, with a bachelor's degree, and with a graduate degree all endorsed the belief that *parental involvement is critical to the academic development of the student with LD* as the highest-rated attitude towards parental involvement, on average, and that *parents should contribute to the decision-making process regarding their child's education* as the highest-rated attitude towards parental empowerment, on average. For both special education teachers and general education teachers working with students with LD, *parental involvement is critical to the academic development of the student with LD* was the

highest-rated attitude towards parental involvement, on average. For teachers in both of these groups, the belief that *parents should contribute to the decision-making process regarding their child's education* also represented the highest-rated attitude towards parental empowerment, on average. Between teachers with 10 years of experience or less and teachers with more than 10 years of teaching experience, both groups rated *that teachers should facilitate parental involvement* and *parents should initiate parental involvement* as the two highest-rated attitudes towards parental involvement, on average. Both groups also rated *parents being able to contribute to the decision-making process regarding their child's education*, *teachers providing parents with information regarding their child's disability to enhance their self-efficacy*, and *teachers supporting parents' expression of opinion* as the three most highly-rated attitudes towards parental empowerment, on average.

Teachers of students with LD across all six grade-levels taught rated the belief that *parental involvement is critical to the behavioral and academic development of students with LD as the highest attitude towards parental involvement*, on average. However, teachers who indicated teaching at the first, second, and third grades tended to believe *parents should initiate parental involvement*, whereas teachers who indicated teaching at the fourth, fifth, and sixth grade tended to believe *teachers should initiate parental involvement*. Additionally, teachers across all grade-levels of teaching indicated parents *contributing to the educational decision-making process for their child*, *teachers providing information to parents regarding their child's disability to enhance self-efficacy*, and *teachers supporting parents' expression of opinion regarding their child's education* all represented the highest-rated attitudes towards parental

empowerment, on average. Lastly, in comparing the attitudes between teachers who have taught 30 students or fewer with disabilities or throughout their careers and those who have taught more than 30 students with disabilities, *parental involvement being critical to the academic development of students with LD* represented the highest-rated attitude towards parental involvement, on average. In terms of parental empowerment, teachers in both groups rated *parents contributing to the educational decision-making process*, *teachers providing information to parents regarding their child's disability to enhance self-efficacy*, and *teachers supporting parents' expression of opinions regarding their child's education* as the highest attitude items, on average.

Main Findings from Linear and Regression Modeling

Higher positive attitudes towards parental involvement shared a significant, positive association with positive attitudes towards parental empowerment. In a linear regression model that controlled for the effect of attitudes towards empowerment, the association between experiences with parental involvement and positive attitudes towards parental involvement approached statistical significance. Subsequent logistic regression modeling also demonstrated the probability of school conferences being offered was significantly lower in urban schools compared to rural schools, while there was no difference in the probability between male and female schools. There was no significant effect for either sex or school location, however, on the probability of parent volunteering opportunities being offered among teachers of students with LD.

Chapter 5

Discussion

Parental involvement is a process that is indicated in the literature to reliably contribute positively to the academic achievement and performance of students of all grades in elementary through high school (e.g., Fan & Chen, 2001; Henderson & Mapp, 2002; Sheldon & Epstein, 2005). Despite the extensive amount of research that has been conducted on this topic in the U.S., particularly in urban communities, few studies have been conducted to investigate parental involvement in KSA, and none of these studies included rural areas in their sample. Given the quantitative and qualitative differences between the U.S. and KSA, it stands to reason that the nature of parental involvement, as well as the factors that impact it, may appear differently in the latter nation. Thus, there is a great need for research aimed towards addressing the current gaps in the literature by assessing and describing current status in parental involvement in KSA, as well as the factors that impact this key process in education. Moreover, comparative analysis between urban and rural areas in KSA would be highly beneficial, as nothing of the kind has yet been published.

The present survey study was intended to address the current lack of literature on parental involvement in KSA and related factors, and particularly the differences between these variables between urban and rural regions. Additionally, this study was designed to garner insight into another rarely discussed topic in the literature: the nature of parental involvement and related factors from the perspective of teachers who work with students with disabilities. This study provides novel and highly valuable insight into the current state of parental involvement via data

provided by both male and female teachers across different degrees, specialties, years of experience, grades taught, number of students with disabilities served, specific student disabilities, and regions across KSA, including rural and urban communities. The purpose of this research was to examine parental involvement, current obstacles to parental involvement, and attitudes towards parental involvement and parental involvement from the perspective of teachers of students with disabilities (especially LD).

Discussion of Findings

Due to the breadth and depth of data collected in this study and subsequent analyses conducted, numerous findings emerged pertaining to the current state of parental involvement, obstacles to parental involvement, and attitudes towards parental involvement and empowerment in KSA. At a glance, the main findings of this study include:

- Descriptive features of parental involvement, obstacles to parental involvement; and attitudes towards parental involvement and parental empowerment;
- Group differences in parental involvement, obstacles to parental involvement, and attitudes towards parental involvement and parental empowerment;
- Correlations among key variables of interest, as well as other relevant factors potentially impacting important outcomes.

Insights Into Current Status of Parental Involvement in KSA

Several noteworthy relationships in the data were found with regard to the experiences with parental involvement reported in this sample of teachers working with students with LD. For instance, digital communication represented one of the most common forms of parental

involvement across all teachers of students with LD. Specifically, parents frequently used the digital communication app, "WhatsApp," in order to reply to teachers and inquire about their child's academic progress. Parents supporting their child with assignments at home also represented another relatively common form of parental involvement reported across all teachers of students with LD in this sample. In contrast, in-person, school-based forms of parental involvement, such as classroom visitations or attending IEP meetings, were less commonly reported amongst all teachers of students with LD in this sample.

The relative lack of in-person, school-based forms of involvement could be potentially explained by some of the commonly reported obstacles amongst this sample of teachers, which included parents' lack of knowledge of their legal rights, parents' limited education, parents' struggle to find sufficient time to become involved with the school, and parents' lack of transportation, especially mothers. Additionally, it is possible that social stigma attached to disabilities discourage parents from engaging in in-person activities with schools, particularly when it comes to IEP meetings. For example, previous research demonstrates parents' fear of stigma and low expectations regarding their child's education resulted in the decision to have their children start school later (Bilgin & Kucuk, 2010). Additionally, Lalvani (2015) reported that "parents articulated beliefs that being labeled "cognitively impaired" would lower teachers' expectations regarding their children's potential and stigmatize them" (p. 383). Each of these obstacles present a significant challenge for parents in the process of becoming actively involved in their child's education, especially through forms that take place at school, in-person. For example, if parents do not understand the rights that enable them to be actively engaged in their

child's education and influence the decision-making process, then it may not necessarily be expected for them to have high levels of in-person involvement at school. Similarly, parents with limited education may feel they are unable to provide valuable contributions to their child's learning or the educational decision-making process because of their own self-perceived limitations. Even if parents have the self-efficacy and desire to become actively involved through in-person school-based activities with their child, such as classroom visitations and IEP meetings, a lack of time and/or transportation presents a sufficient logistical barrier to doing so consistently.

Female and male teachers of students with LD did not differ in terms of how frequently they reported different forms of parental involvement experiences, nor was there any significant difference between these groups in terms of the total average parental involvement experiences reported. In fact, the only observable significant difference in total parental involvement experiences occurred between teachers in urban schools and teachers in rural schools, whereby the former group reported higher levels of parental involvement experiences, on average. One possible explanation for this finding is that parents are more limited by lack of transportation in rural areas than parents in urban schools. For example, perhaps there is greater distance between residential areas and schools in rural communities, and parents are therefore more reliant on automobile-based forms of commuting to schools than parents in urban communities, whose homes are closer to schools. Regardless, more research is needed to examine the underlying factors that explain this difference in experiences between teachers of students with LD in urban and rural schools.

This study also sought to understand the potential factors that could be impacting school practices pertaining to parental involvement opportunities. Two specific types of school practices in this domain were captured in this study: offering school conferences which parents can attend; and offering activities for parents to voluntarily participate in. It was demonstrated that urban schools were significantly less likely to offer school conferences to parents compared to rural schools, while controlling for the sex- separation status of the school (i.e., male vs female school); in contrast, there was no difference in the probability of school conferences being offered between female and male schools. This finding was particularly surprising, given that rules and regulations determined by the department of education in Jazan province are the same for all schools, both urban and rural. Therefore, further research investigating the underlying factors contributing to this difference in school conference availability between urban and rural schools in Jazan province, KSA, is greatly needed.

In contrast to the previous findings pertaining to school conference availability, there appears to be no significant difference in the probability of volunteering opportunities being offered between urban and rural schools, nor between male and female schools. This finding is somewhat surprising, given that urban schools were significantly less likely to offer school conferences compared to rural schools in this study. If urban schools tend to offer less school conference opportunities for parents, then it might be expected that parent activity volunteering opportunities would be perhaps less likely to be offered as well. With this said, it should be noted the subsample of teachers working in urban schools in this study was very limited. It is entirely possible a significant difference in the probability of volunteering opportunities would have

emerged if a larger sample of teachers from urban schools in KSA had completed the survey in this study. Further research using a larger sample of teachers from urban schools and comparing the availability of school volunteering opportunities with teachers from rural schools would help clarify this issue.

Insights Into Perceived Parent-Related Obstacles and School-Teacher Related Obstacles of Parental Involvement

Results of the obstacles reported by teachers of students with LD yielded several key insights into some of the current problems impeding parental involvement in Jazan province, KSA. At a broad level, teachers rated parent-related obstacles as being more frequent, on average, compared to school/teacher-related obstacles. Three potential explanations for this status are worth discussing: (1) parent-related obstacles are truly more prevalent in frequency and/or magnitude and are therefore a greater impediment to parental involvement than school/teacher-level issues; (2) teachers are less aware of issues that pertain to their own decisions and actions, or underestimate the degree to which their own issues are relevant or impactful; and/or (3) teachers place a higher burden of responsibility onto parents for becoming involved in their child's education, such as by expecting them to initiate contact with the school. Each of these hypotheses will be examined briefly with respect to the extant literature and/or the evidence available in the present study.

With respect to the first hypothesis, there does not appear to be any readily available studies published in the literature to support it. That is, I could not find any studies specifically indicating the prevalence and/or magnitude of issues presented by parents, either in the U.S. or

KSA, are disproportionate in their impact on subsequent parental involvement. In other words, there is inadequate evidence to yet suggest parent-related obstacles disproportionately impede the parental involvement process compared to school/teacher-related obstacles. In contrast, it seems more likely that one (or both) of the other two hypotheses posed earlier could reasonably explain the tendency for teachers to rate parent-level issues as being more prevalent obstacles to parental involvement.

In relation to the second hypothesis, there is plenty of literature in the domain of cognitive and social psychology highlighting the human tendency to place blame for an issue onto others, rather than taking personal responsibility and/or blame (e.g., Freud, 1946; Malle et al., 2014). This cognitive bias or predisposition could be a potential explanation for the tendency of teachers in the present study to view parent-related issues as being more frequent and prevalent impediments to involvement compared to issues that center on the school or teachers themselves.

With regard to the third hypothesis, it is certainly possible that teachers place disproportionate responsibility upon the parents for facilitating involvement in their child's education, consistent with what has been demonstrated by Al-Mahdi (2020). Indeed, teachers in the present study indicated higher average agreement with the belief that parents should initiate parental involvement compared to the belief that teachers should initiate parental involvement. Further research should explore more about the relationship between teachers' expectations of parents with regard to parental involvement, including the belief that parents should initiate

involvement, and the perceived obstacles to parental involvement reported by teachers in Jazan province, KSA.

The top three highest-rated parent-related obstacles amongst all teachers of students with LD in this study included parents' lack of knowledge of their legal rights, parents' limited education, and parents lack of sufficient time. Some of these findings are consistent with reports by other researchers, such as Baker et al., (2016) and Baeck (2010). Additionally, parents' limited education presenting an obstacle to involvement is consistent with previous findings in the literature (e.g., Hornby & Lafaele, 2011).

It is also important to acknowledge the environmental influences that could explain parent-related obstacles. For example, the notion of parents' lack of knowledge of their legal rights could be reframed as parents being denied the opportunity to be informed of their rights by teachers and schools. Parents' right to participate as a member of the IEP team is clearly specified by the Regulations of Special Education Programs and Institutes (RSEPI) in KSA, and therefore it could be argued schools and teachers have an obligation to ensure parents of children with disabilities are adequately informed of their rights when providing services to these students. In a similar manner, the notion of parents' lack of sufficient time could be reframed as teachers' failure to adequately coordinate with parents to schedule meetings and other activities when parents are available, or to find other ways to accommodate parents (e.g., using virtual platforms, such as Zoom, to hold IEP meetings).

Additionally, the top three highest-rated school/teacher-related obstacles amongst all teachers of students with LD in this study consisted of a lack of school policy, lack of

professional development training, and teachers not emphasizing to parents the importance of their involvement in the IEP development process. These findings are consistent with reports by other researchers showing the lack of school policy pertaining to parental involvement being common amongst schools in KSA (Alqahtani, 2020).

Several interesting differences were observed in the most prevalent obstacles reported between teachers in different groups, including those in urban vs rural schools and male vs female teachers. While social obstacles, such as divorce, represented one of the most prevalent obstacles to parental involvement reported by teachers in urban schools, teachers in rural schools reported parents' lack of sufficient time as a more prevalent obstacle in comparison. In contrast, teachers in rural schools indicated parents' lack of sufficient time as one of the top three highest-rated obstacles on average. Additionally, male teachers seemed to consider a lack of sufficient time as one of the top three most prevalent obstacles, whereas female teachers reported a lack of transportation as one of the top three most prevalent obstacles to parental involvement. This may be because women only recently gained the societal approval to drive vehicles themselves, and therefore the ownership and/or use of motor vehicles may be less prevalent amongst women compared to men in Jazan province, KSA (Krane, & Majid, 2018).

Empirically, some noteworthy observations occurred with regard to differences in perceived obstacles to parental involvement between different groups of teachers of students with LD. For example, the overall prevalence of obstacles appeared significantly lower among teachers with a bachelor's degree or diploma in special education compared to teachers with a graduate degree. Additionally, teachers of students with LD in urban schools reported

significantly higher obstacles on average compared to teachers of students with LD in rural schools. However, the rank-ordering of reported obstacles based on average ratings were quite similar between teachers in urban and rural schools, whereby two of the top three parent-related obstacles in both groups were the same, and both groups reported a lack of school policy as one of the top three school/teacher-related obstacles. Therefore, it is not clear why teachers of students with LD in the urban area reported a higher average prevalence of overall obstacles to parental involvement than teachers of students with LD in rural schools. This indicates a definite need for future research exploring the underlying factors that may contribute to a heightened prevalence of overall obstacles to parental involvement in urban areas in comparison to obstacles in rural areas. Lastly, teachers of students with LD who have worked with relatively fewer students with disabilities throughout their career reported significantly higher obstacles on average compared to teachers of students with LD who have worked with more students with disabilities. This discrepancy may be due to differences in experience in dealing with obstacles, whereby teachers who have worked with a higher number of students with disabilities therefore have had more time and opportunities to learn how to properly address obstacles to parental involvement. Nevertheless, future research should explore this hypothesis, as well as other potential hypotheses that could explain the tendency for teachers who have worked with relatively fewer students with disabilities to report higher levels of obstacles to parental involvement compared to teachers who have worked with relatively more students with disabilities throughout their careers.

Insights Into Attitudes Towards Parental Involvement and Parental Empowerment in KSA.

The attitude that is held towards a given process or behavior can be highly predictive of whether said process or behavior occurs, as well as how it occurs (Haddock et al., 2020). Likewise, the attitudes with which teachers of students with LD in Jazan province, KSA, view parental involvement and parental empowerment may shed light on key insights surrounding the current state of parental involvement in this region. Both types of attitudes were thoroughly investigated empirically in this survey, the key findings of which are discussed presently. First, the discussion concentrates on key themes derived from the data on teachers' attitudes towards parental involvement, and how these themes can be tied to findings that pertain to the experiences and obstacles teachers reported in this study. Then, the discussion on teachers' attitudes towards parental empowerment takes place with a similar organizational structure.

Descriptive analysis of attitudes towards parental involvement from the perspectives of teachers of students with LD revealed several interesting findings. For instance, teachers tended to agree most strongly with the belief that parental involvement is critical to both the academic and behavioral development of children with LD. There was also relatively high agreement that teachers should facilitate parental involvement, although there was less agreement with the attitude that teachers should be the ones to initiate (i.e., start or initialize) parental involvement. It seems teachers of students with LD in Jazan province, KSA, prefer parents to be the ones to initiate parental involvement, after which teachers should be expected to continue facilitating the parental involvement process. Teachers also agreed less about parental involvement being

critical to the social development of students with LD, as well as parental involvement potentially helping teachers to effectively support students with LD. Therefore, despite the perceived importance of parental involvement in promoting positive academic and behavioral outcomes for students, teachers of students with LD on average do not view parental involvement as important for promoting positive social development for students, nor for helping themselves as teachers in supporting students with LD. Even though teachers in general in this study seemed to view parental involvement as an important component for students in some respects, it is not necessarily the case that they perceive parental involvement as being necessary for the teachers themselves to be effective in working with students with LD.

With respect to teachers' attitudes towards parental empowerment, it was commonly agreed amongst those in this study that parents should be able to contribute to educational decision-making for their child, teachers should provide information to parents regarding their child's disability to enhance their self-efficacy, and teachers should support parents' expression of opinion regarding their child's education. Interestingly, there was less endorsement by teachers in this study with respect to parents' ability to voice concerns to teachers, teachers' obligation to advocate for parents' educational rights, and teachers' responsibility to provide parents with information on their child's educational progress to enhance parents' self-efficacy related to their child's education. This latter belief represented the least-endorsed attitude towards parental empowerment, which is particularly surprising, given that communication with parents regarding their child's educational progress via WhatsApp was overall the most common form of parental involvement experience demonstrated in this study. It is not necessarily clear

why this discrepancy was observed, although one possibility is that the survey item was not worded as clearly as it could have been. Future research exploring teachers' attitudes towards parental empowerment using a similar survey should focus on refining the item statements to make them as succinct and comprehensible as possible.

There did not appear to be a significant relationship between the number of parent-related obstacles or school/teacher-related obstacles and their attitudes towards parental involvement. However, the relationship between school/teacher-level obstacles and attitudes towards empowerment did approach significance, and it is possible this relationship would have been significant if a larger sample of teachers of students with LD had been obtained.

There was a significant difference in attitudes towards parental involvement observed between male and female teachers of students with LD. Essentially, the attitudes of female teachers of students with LD tended to be less positive compared to male teachers of students with LD. This difference also remained significant when controlling for the effects of school community (i.e., rural vs urban) and general/special education teaching status. There did not appear to be any significant relationship between school community and teachers' attitudes towards parental involvement. Although there was a significant relationship between general/special education teaching status and attitudes towards parental involvement, this effect disappeared after controlling for the effect of sex. In other words, the relationship between general/special education teaching status and teachers' subsequent attitudes towards parental involvement became insignificant after accounting for the influence of sex on teachers' attitudes towards parental involvement.

In terms of attitudes towards parental empowerment, a comparison between relatively new teachers and veteran teachers also revealed a small, but significant, difference whereby veteran teachers tended to report more positive attitudes towards parental empowerment compared to newer teachers. In other words, teachers of students with LD who have worked for 10 or more years in education reported more positive attitudes towards parental empowerment than teachers of students with LD who have worked for less than 10 years in education. Additionally, teachers of students with LD who had worked with 30 students or fewer with disabilities throughout their career reported more positive attitudes towards parental empowerment compared to teachers of students with LD who had worked with more than 30 students throughout their career.

The first of these findings suggests a trend whereby, the longer that teachers work in the field of education, the more favorably they tend to view parental empowerment. However, this finding seemingly conflicts with the tendency for teachers who have worked with a relatively higher number of students with disabilities to view parental empowerment less favorably than teachers who have worked with relatively fewer students with disabilities. It is not necessarily clear why this discrepancy occurred, and one of the challenges to validly interpreting these conflicting findings is that this study did not specifically assess the relationship between the number of years teaching and the number of students with disabilities having worked with throughout one's career. It is not valid to assume a greater amount of time in the field of education equates to a higher number of students with disabilities having taught. It is entirely possible for veteran teachers to report having worked with relatively fewer students with

disabilities, just as it is possible for teachers with less than 10 years of experience to fall into the category of having worked with a relatively higher number of students with disabilities. Future research should focus on analyzing the effect of teaching experience (i.e., number of years in the field) on attitudes towards parental empowerment while controlling for the number of students with disabilities having worked with throughout one's career. This could help determine whether the observed effects in this study pertaining to teaching experience and number of students with disabilities served on attitudes towards parental empowerment are meaningful.

Additionally, female teachers of students with LD reported significantly less positive attitudes towards parental empowerment compared to male teachers, even when controlling for the effects of general/special education teaching status, school community, teaching experience, and the number of students with disabilities having worked with throughout one's career. It is impossible with the evidence gathered in the present study to confidently speculate as to why female teachers would report significantly less positive attitudes towards parental empowerment, and therefore future research exploring the underlying factors accounting for this status is greatly warranted. Therefore, future research should focus on exploring some of the potential reasons why female teachers of students with LD in Jazan province, KSA, tend to view parental empowerment less favorably than male teachers of students with LD.

Implications for Practice and Research

This study provides some of the earliest descriptive evidence of experiences with parental involvement, obstacles to parental involvement, and attitudes towards parental involvement and empowerment from the perspectives of teachers of students with disabilities in Jazan province,

KSA. Furthermore, this study represents the first empirical investigation of the relationship between key teacher and school-related factors and teachers' experiences with parental involvement, perceived obstacles to parental involvement, and attitudes towards parental involvement and parental empowerment. The findings discussed throughout this chapter pertaining to teachers' current experiences with parental involvement, the perceived parent-related and school/teacher-related obstacles to parental involvement, and teachers' attitudes towards parental involvement and parental empowerment may be particularly helpful for informing practitioners who are interested in facilitating parental involvement.

At the time this study was conducted, parental involvement took place in various forms and to differing degrees based on certain groups of teachers of students with LD. Understanding which forms of parental involvement currently take place, and which factors seem to correspond with differing levels of parental involvement in general, may be helpful for current administrators, researchers, and policy developers who are interested in the topic of parental involvement and helping cultivate this critical process towards improving student achievement and performance. For example, digital communication represented one of the most common forms of parental involvement reported by teachers, and this medium of information exchange was used particularly to keep parents updated on their child's academic progress and classroom performance. Because technology often makes consistent communication much more convenient, digital devices and software applications, such as WhatsApp, likely represent one strategy that can be further promoted to increase parental involvement in Jazan province, KSA.

Another common type of parental involvement took the form of helping one's child with homework assignments at home, thus indicating parents in Jazan province seem to be often interested in helping their child with their learning and academic achievement. This interest and willingness to participate in the at-home support aspect of students could be leveraged by practitioners by tailoring homework assignments to facilitate parent participation and/or collaboration.

Less common forms of parental involvement shown in this study were behaviors that required in-person participation, such as school classroom visits and attending IEP meetings. Given that in-person forms of school-based parental involvement can be beneficial to student growth and achievement (Park & Holloway, 2017), there is a huge need for attention to concentrate on strategies and tactics to increase parents' access to school campuses and ability to participate in meetings, visitations, and other face-to-face activities. Opportunities for improvement towards this aim may be identifiable via a discussion of the relevant obstacles to parental involvement later in this section.

The evidence garnered in this study also suggests teachers in urban schools experience significantly more parental involvement compared to teachers in rural schools in Jazan province, KSA. However, the reasons for this cannot be fully elucidated based on this study alone. Therefore, there is a great need for further research to better understand why teachers of students with LD in urban schools seem to experience more parental involvement compared to teachers of students with LD in rural schools. Such research could grant insight into potential strategies and

tactics that could better balance the amount of parental involvement that occurs for teachers of students with LD in both types of community.

Several key insights into the perceived obstacles to parental involvement with respect to teachers of students with LD in Jazan province, KSA, and important takeaways from these results were garnered in this study. One important status identified was the tendency for teachers to perceive obstacles pertaining to parents as more frequent, or of greater magnitude, compared to obstacles pertaining to schools or teachers themselves. That is, statements describing parent-related obstacles were consistently endorsed more strongly than statements describing obstacles that center on either schools or teachers. Furthermore, there appear to be two broad, competing hypotheses that could explain this tendency, which is either: (a) parent-related obstacles truly do represent a disproportionate impediment to parental involvement in comparison to school/teacher-related obstacles; or (b) certain biases predispose teachers to view obstacles outside of themselves and their professional environment with greater awareness and/or severity. Although there are yet to be any identifiable publications testing the former hypothesis, some of the evidence gathered in the present study could arguably support the latter. That is, teachers tended to view parents as having a greater responsibility to initiate parental involvement compared to teachers' own responsibility to do so. Because teachers in this study tended to place disproportionate expectations on parents for starting the process of parental involvement, they could have rated parent-related obstacles more strongly than obstacles which would implicate themselves simply due to this predisposition. Nevertheless, this study cannot definitively answer this question based on the available evidence, and there is therefore a substantial need for future

research exploring the potential reasons why teachers may be predisposed towards viewing parent-related obstacles as more prevalent impediments to parental involvement compared to school/teacher-related obstacles.

This study also revealed several key obstacles that are currently undermining parental involvement in schools throughout Jazan province, KSA. For instance, parents' lack of knowledge regarding parent legal rights that pertain to their child's education, parents' limited education, and parents' lack of sufficient time all represented the most endorsed obstacles amongst teachers of students with LD. Because parents' lack of knowledge represents the most common obstacle, finding methods to effectively distribute information on parental rights for students with LD could be one way to promote higher rates of parental involvement in Jazan province, KSA. Due to many parents' lack of education, however, it would also likely be necessary to make these informational resources as succinct and digestible as possible. A lack of school policy pertaining to parental involvement also represented the most common school/teacher-related obstacle amongst teachers of students with LD. Therefore, school administrators should work to draft and establish a clear, concise, and practical set of rules or guidelines to delineate roles and expectations for teachers and parents, and thereby help facilitate higher rates of parental involvement.

There also appears to be a higher overall prevalence of obstacles amongst teachers of students with LD who work in urban schools compared to teachers of students with LD who work in rural schools. Therefore, there is a strong need for further research exploring the potential factors that could be contributing to disproportionate obstacles between these two types

of school community settings. Identifying these underlying factors will represent an important step in the process of developing effective solutions to reduce obstacles and thereby increase overall rates of parental involvement in schools in both rural and urban communities in Jazan province, KSA.

Female teachers of students with LD also held less favorable attitudes towards parental involvement compared to male teachers of students with LD, and this difference remained significant even when controlling for the effects of general/special education teaching status and school community type. Therefore, female teachers of students with LD held less favorable views towards parental involvement, regardless of whether they taught at an urban or a rural school and whether they were general education or special education teachers. Further research is highly warranted for further delineating the underlying reasons for the tendency for female teachers of students with LD in Jazan province, KSA, to hold less favorable views towards parental involvement compared to male teachers of students with LD.

This study also demonstrated teachers who are relatively new to the field of education in Jazan province, KSA, tend to view parental empowerment more favorably than teachers who have been in the field of education for a relatively longer period of time. The same tendency was found for teachers who have worked with relatively fewer students with disabilities, where this group had more favorable attitudes towards parental empowerment compared to teachers who have worked with a higher number of students with disabilities, likely indicating more time and experience in the field of education in general. It may be the case that new arrivals to the field were recently exposed to college-level materials promoting the idea of parental empowerment,

which could explain the tendency demonstrated in this study. Therefore, one potential strategy for promoting positive attitudes towards parental empowerment with teachers who are veterans in the field of education may be to develop and implement professional development training that center on parental empowerment as an important component to the education of children with LD.

Contributions to The Literature

This study provides several important contributions to extend upon the current literature pertaining to parental involvement in education. First, this study provides the earliest scholarly and empirical insights into the current status of parental involvement from the perspective of teachers in Jazan province, KSA. Furthermore, this study provides findings that elucidate the relationship between key teacher/school-related factors, including experiences with parental involvement and perceived obstacles to parental involvement, and subsequent attitudes towards parental involvement, as well as attitudes towards parental empowerment. This study also represents the first comparative study between schools in both urban and rural communities with respect to key teacher/school-related factors and experiences, perceived obstacles to, and attitudes towards parental involvement and attitudes towards parental empowerment. Lastly, this study provides insights into each of these domains, with data specifically obtained from teachers of students with LD, representing a small but crucial population necessary for understanding how parental involvement contributes to the academic achievement of students with LD in Jazan province, KSA. Therefore, several valuable contributions to the extant literature were provided by this study, which previously lacked information on the nature of parental involvement in

Jazan province, KSA, and especially lacked empirical understanding of parental involvement and parental empowerment from the perspectives of teachers of students with LD in both urban and rural areas in KSA.

Limitations

There are some limitations to this study that are important to consider. First, this study only examines parental involvement from the perspectives of elementary teachers who work with students with LD in Jazan province, KSA. This study did not therefore examine the nature of parental involvement, or other factors related to parental involvement, from the perspectives of parents of students in this region. Future research gathering data from the perspectives of both teachers and parents in Jazan province, KSA, would therefore be beneficial to reconcile some of the themes and discrepancies discussed earlier in this chapter.

The reason this study only recruited elementary school teachers is because there are no LD programs in middle or high school in Jazan province; however, there are some special education programs designed for students with intellectual disability (ID) in a limited number of middle and high schools in this region. Therefore, future research could explore how parental involvement might be different in middle and high schools, particularly with respect to teachers who work with students with ID. For instance, these students often require certain types of services, such as post-high school translation services, and it could be interesting and useful to explore how parental involvement seems to impact the provision and effectiveness of these services.

Another limitation pertains to the research instrument, specifically: teachers from Jazan province, KSA, could not be recruited to complete the think aloud protocol because the study was designed and conducted during the summer break, when teachers in this region are on vacation and therefore largely unavailable. Thus, future research utilizing a survey as a measure should consider conducting the study during the active school year and thereby recruit teachers from Jazan province to complete the think aloud protocol for this instrument. Doing so would further substantiate the validity of this research instrument for collecting data.

Sample size and characteristics represent other limitations to this study: although the study includes general education teachers of both sexes who teach, or have taught, students with LD in the general and special education environment, it is unclear whether the study sample is adequately representative of the population. This is because no publicly available data could be obtained which adequately described the size and characteristics of this target population in Jazan province, KSA. Therefore, it is impossible to determine the degree to which the study sample is representative of the population of teachers of students with LD in this region.

Lastly, the survey utilized in this study turned out to be somewhat lengthy, and therefore some participants did not complete the survey in its entirety. In order to compensate for this, a means imputation was conducted to replace missing responses in the dataset. Although means imputation is typically a valid tactic for dealing with missing data, assuming there are no glaring patterns of missingness in the data, it nevertheless would have been better to minimize missing data as much as possible. Attenuating the survey length to make it more succinct and easily

completed would therefore likely have reduced missingness in the data and subsequently strengthened the confidence in the results in this study.

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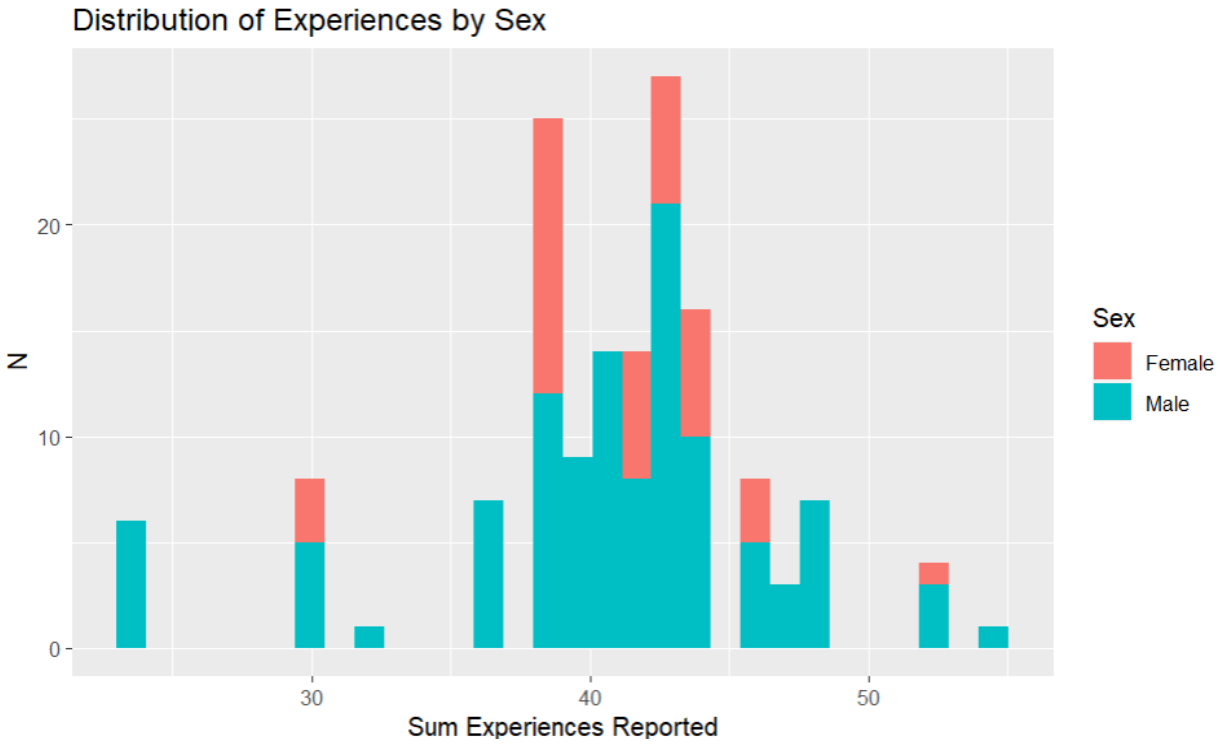
Appendix A: Visual Analysis

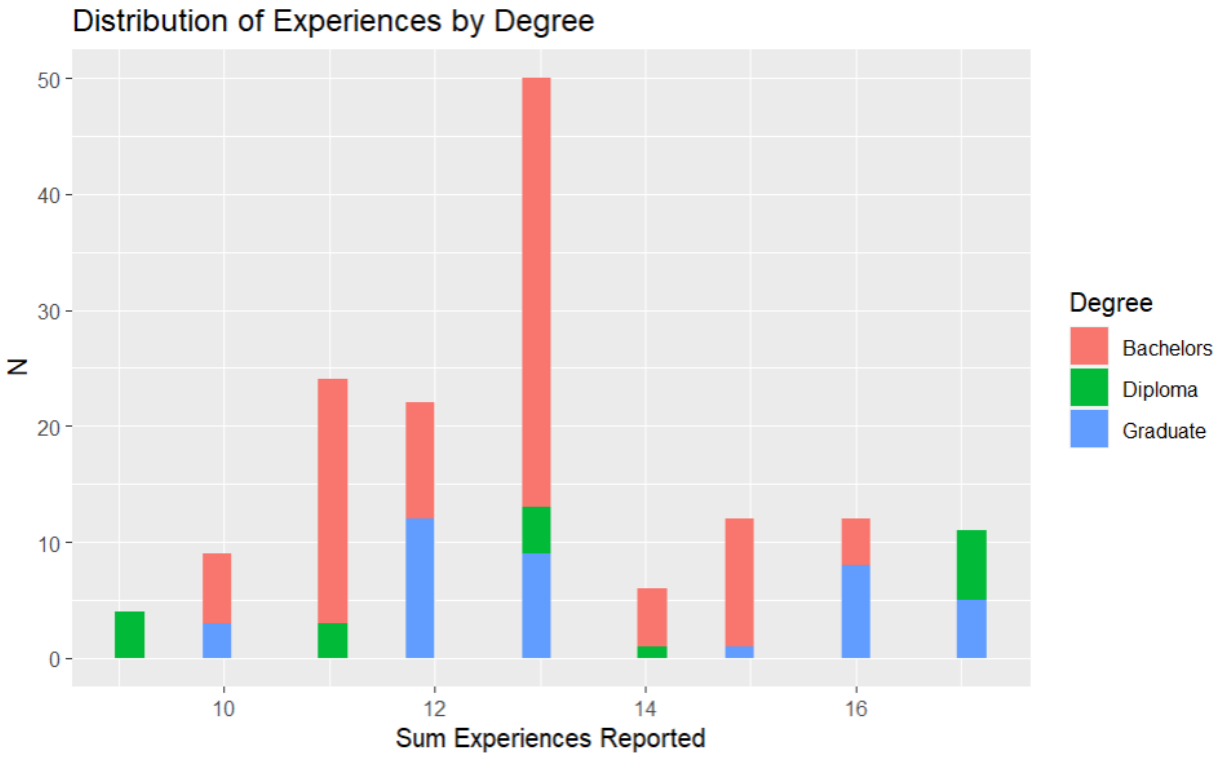
Sum score = The total number of responses

Count *N* = Number of participants

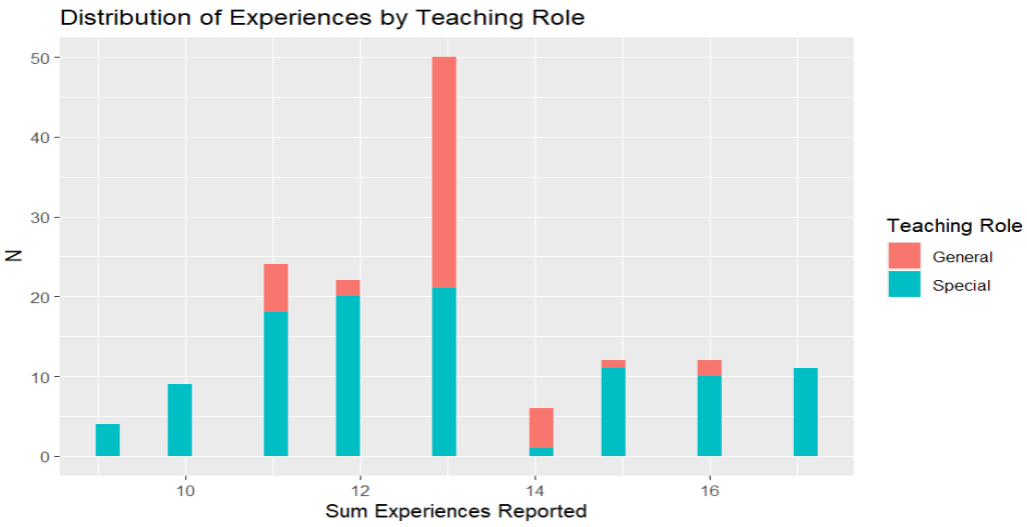
Visual Analysis Using Experience with Parental Involvement as Dependent Variable Sex.



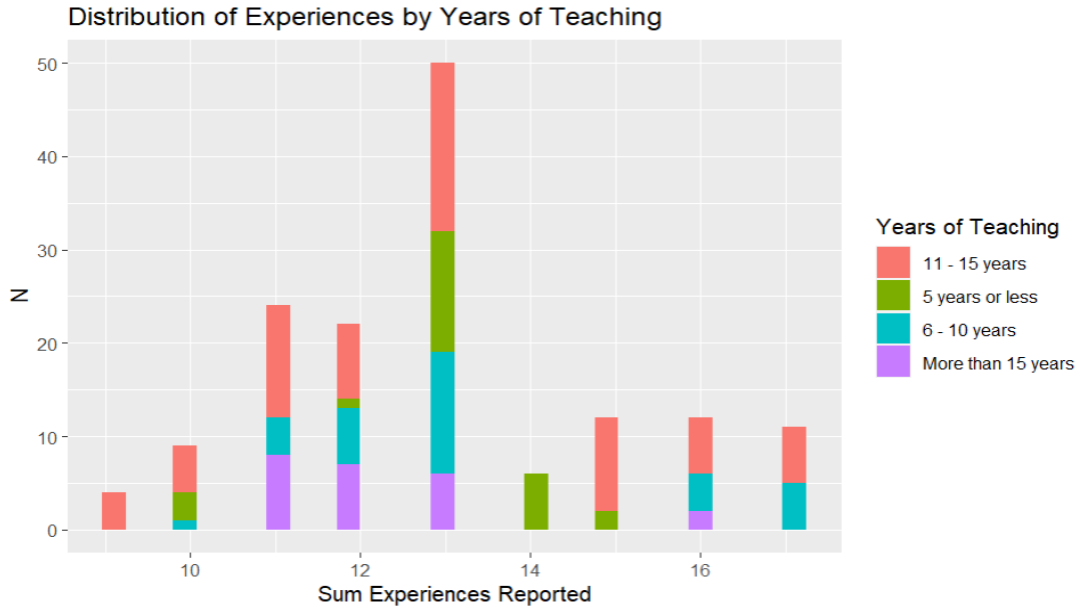
Degree Type.



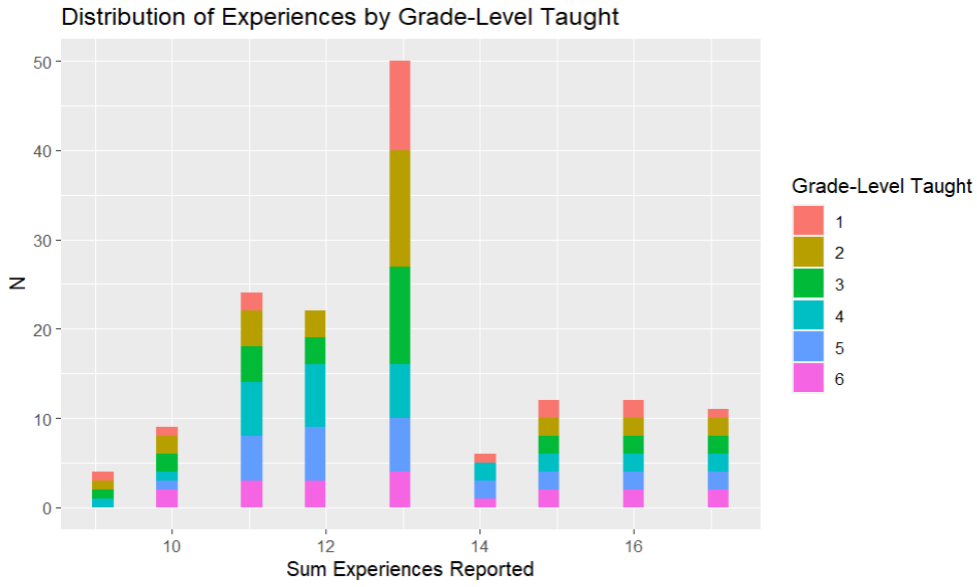
Teaching role.



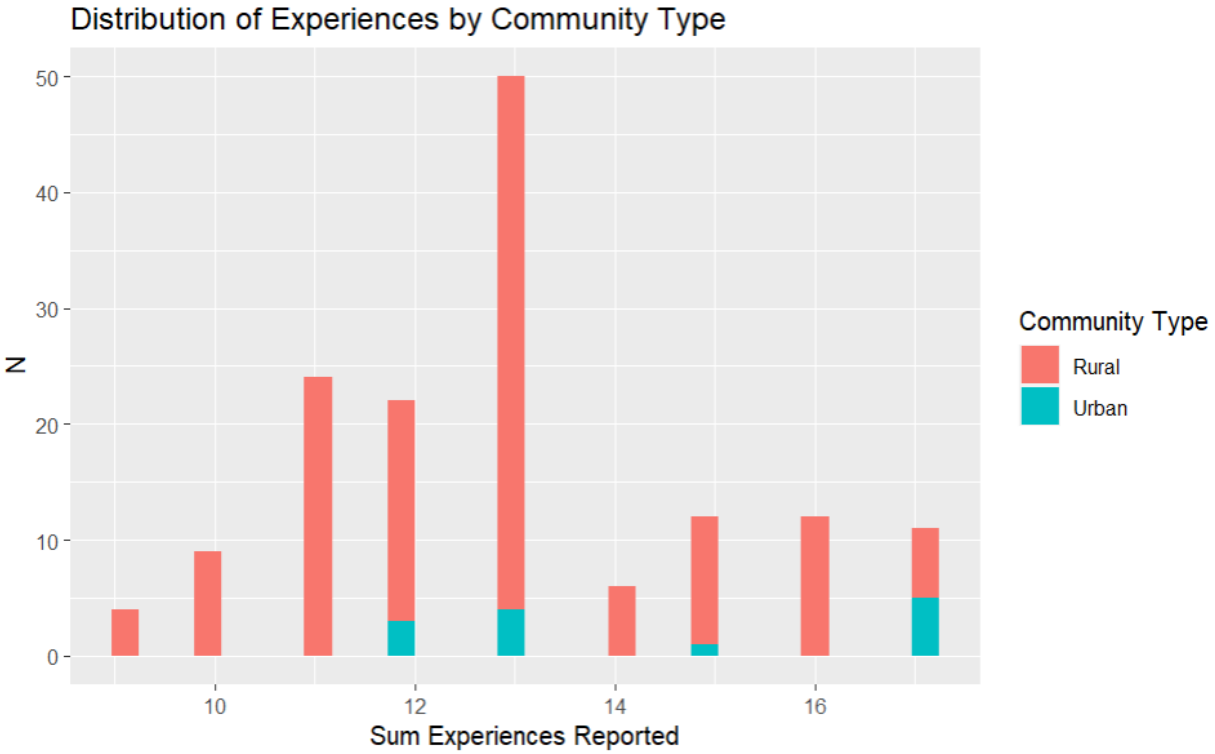
Years of Experience.



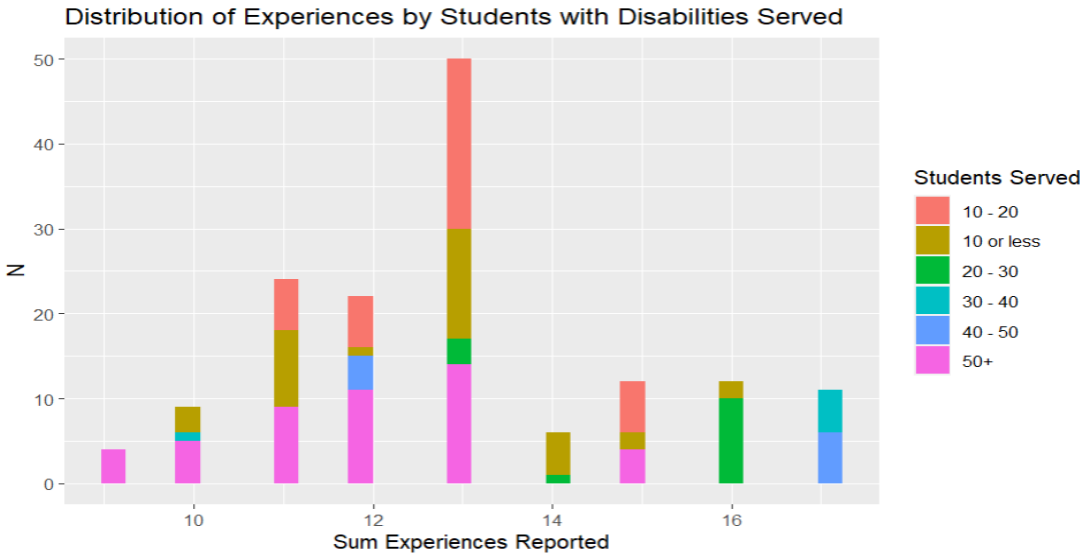
Grade- Level taught.



Community Type.

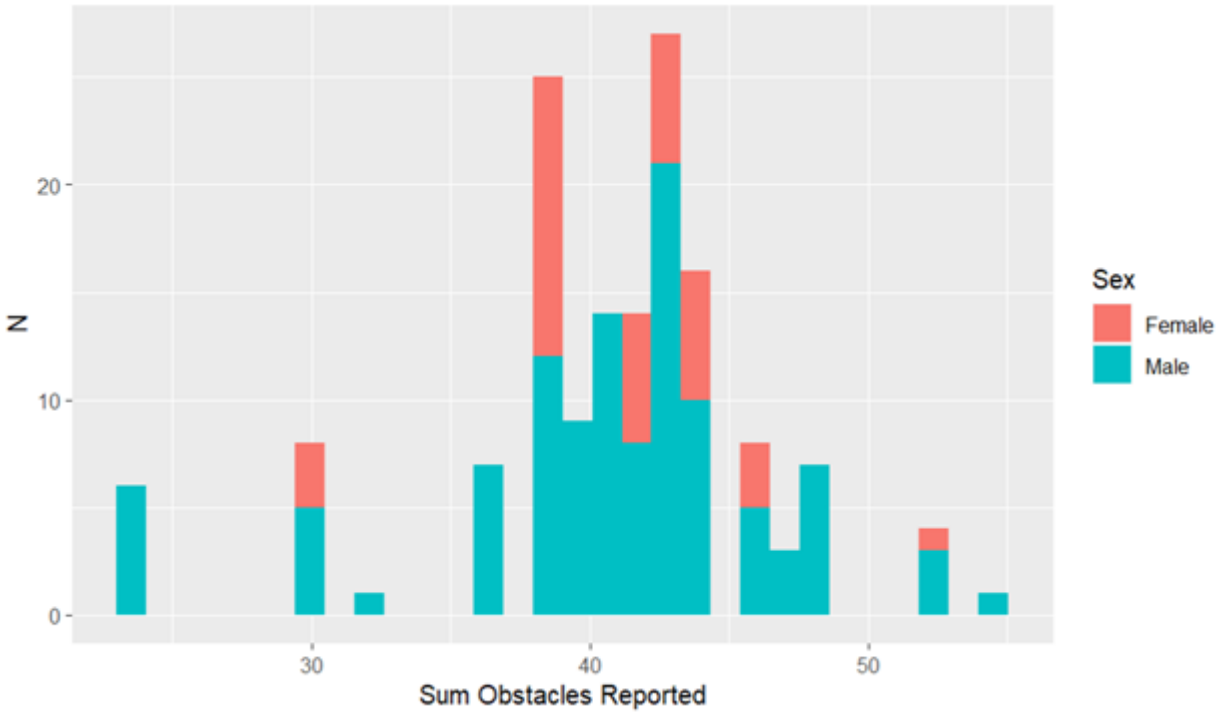


Number of students taught.



Visual Analysis Using Obstacles as Dependent Variable

Sex.



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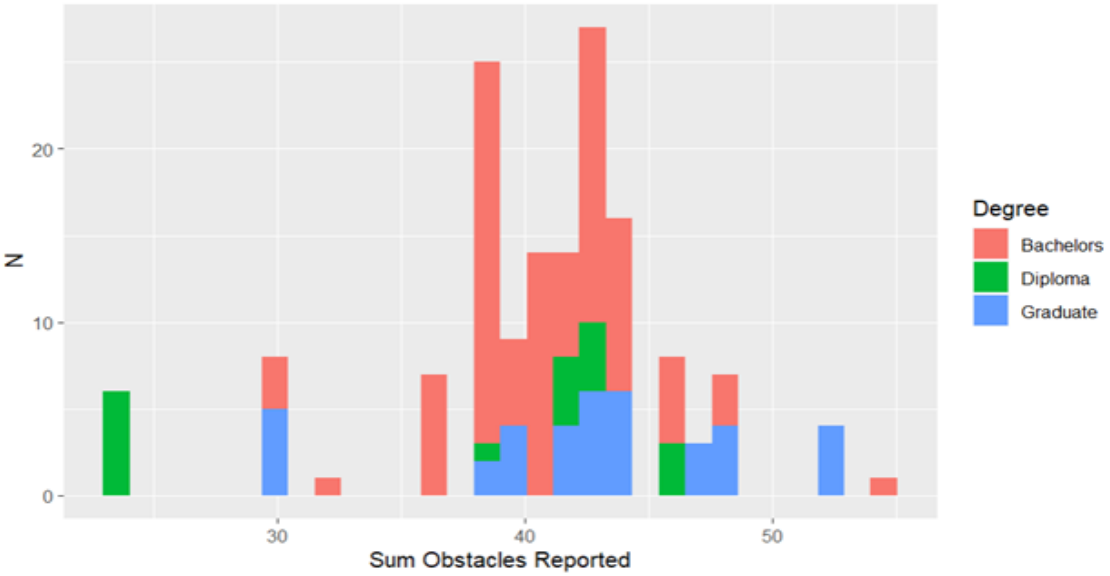
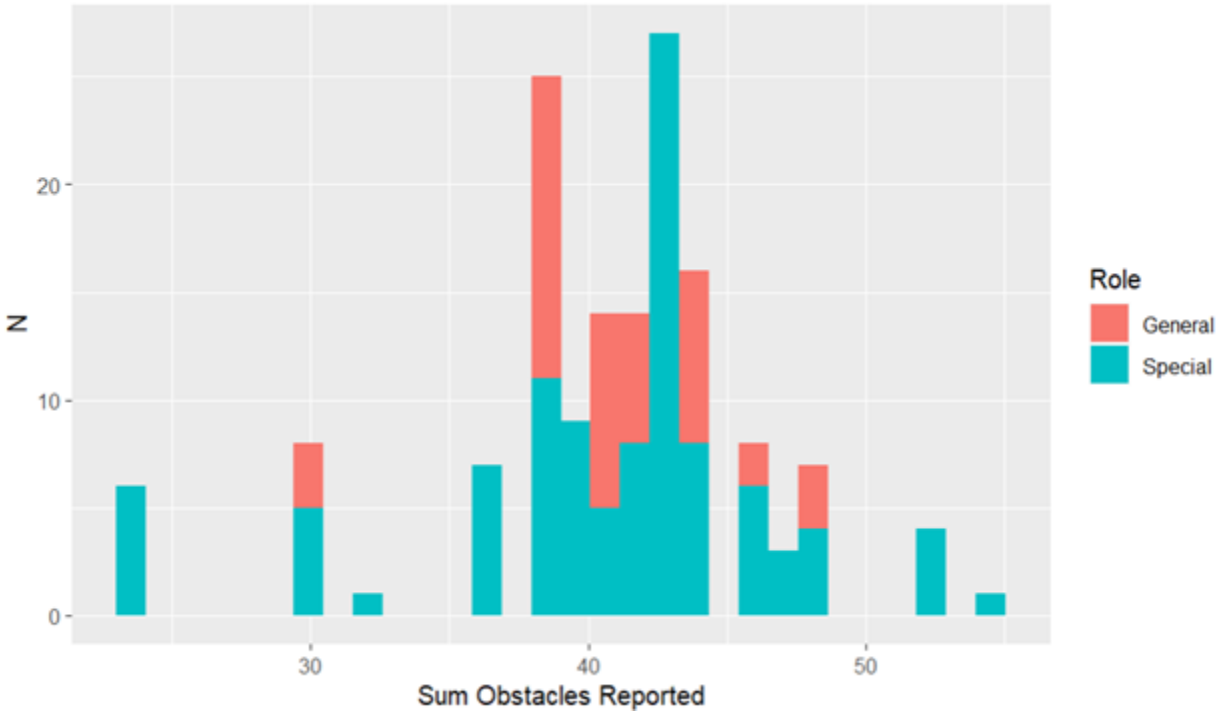
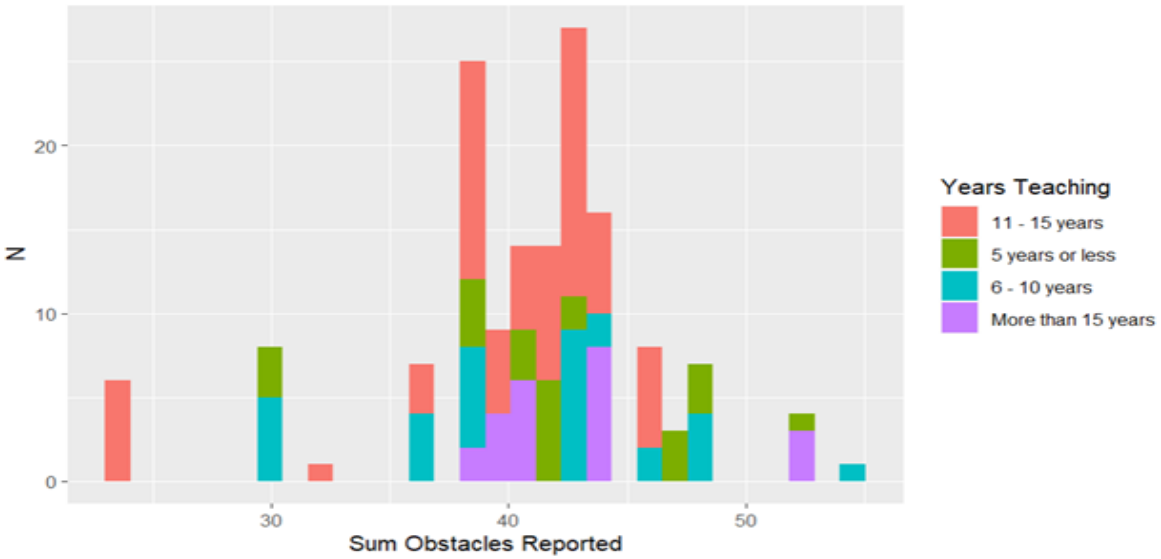


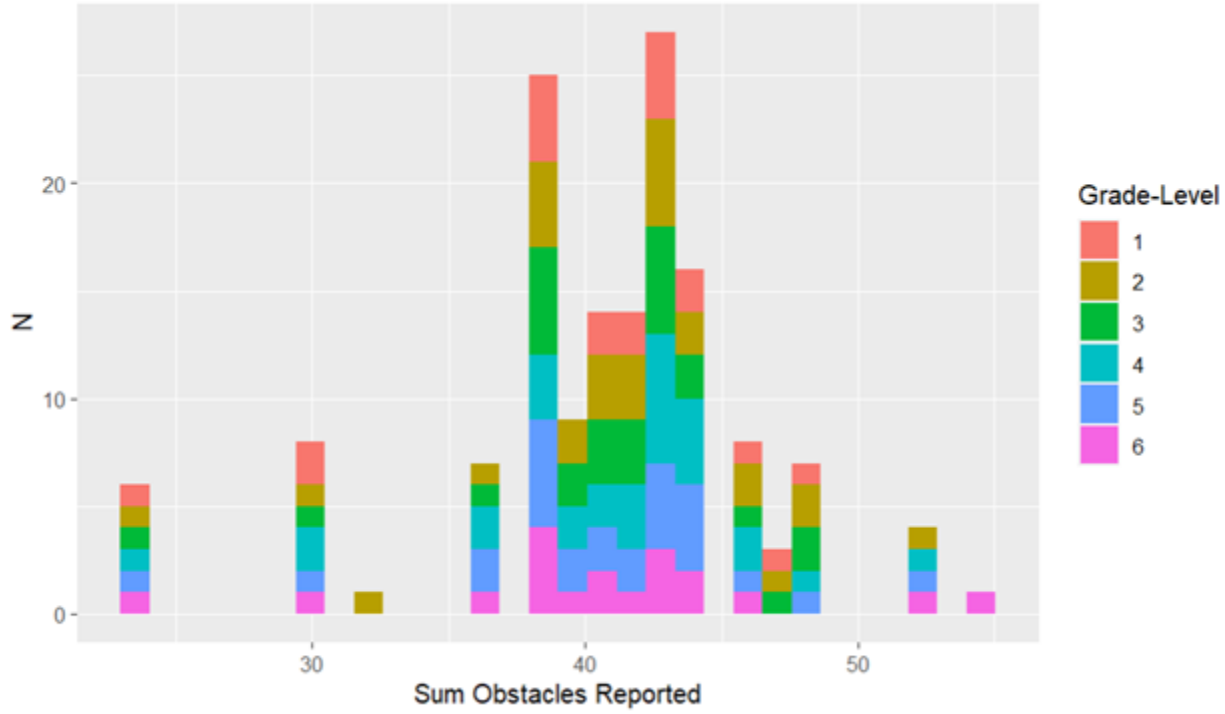
Teaching Role.



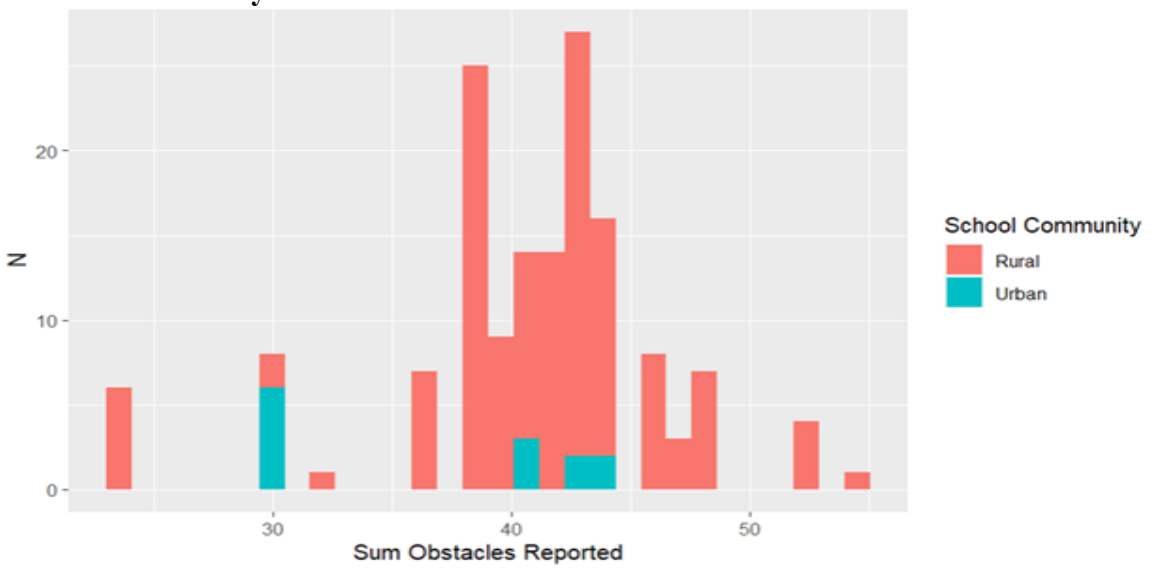
Years of Experience.



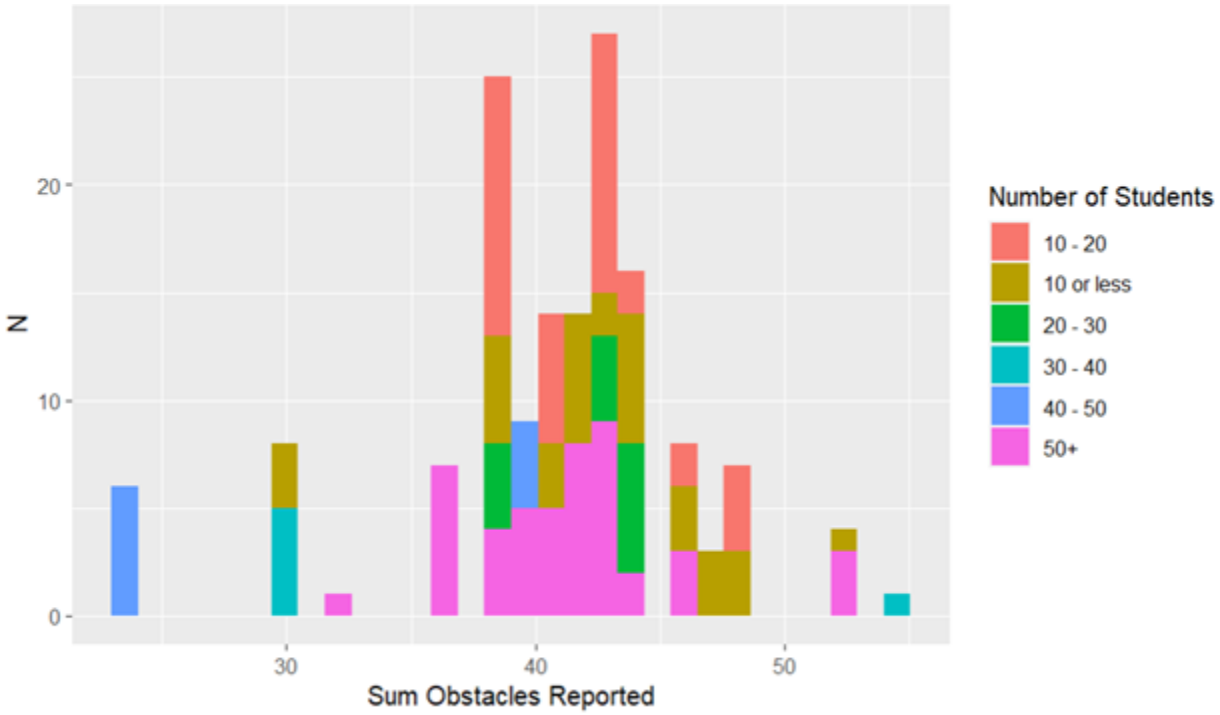
Grade- Level teaching.



School Community.

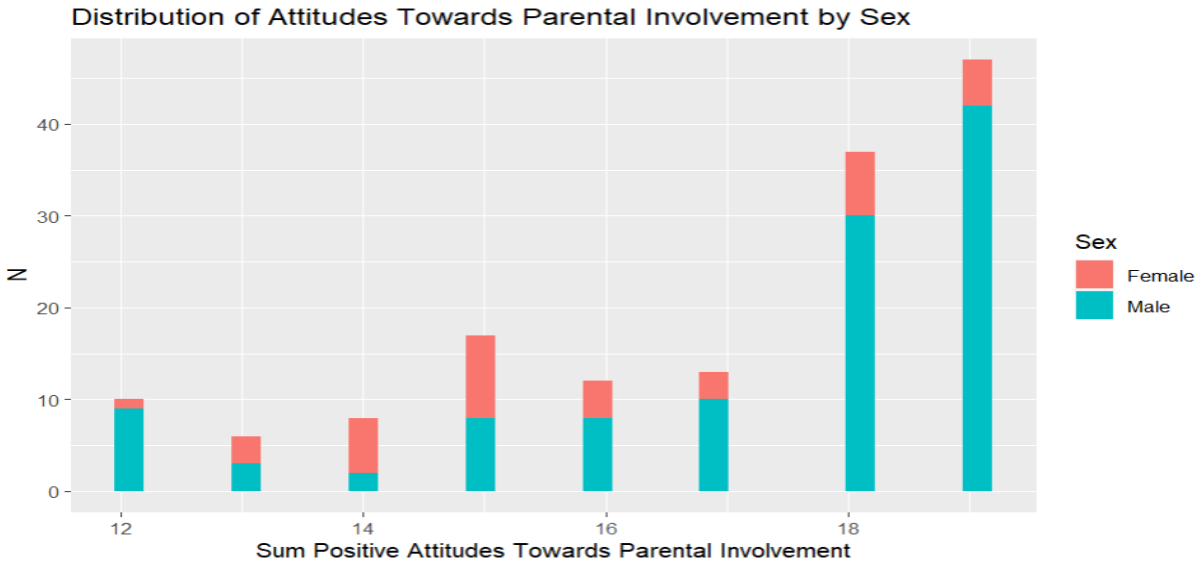


Number of students taught.

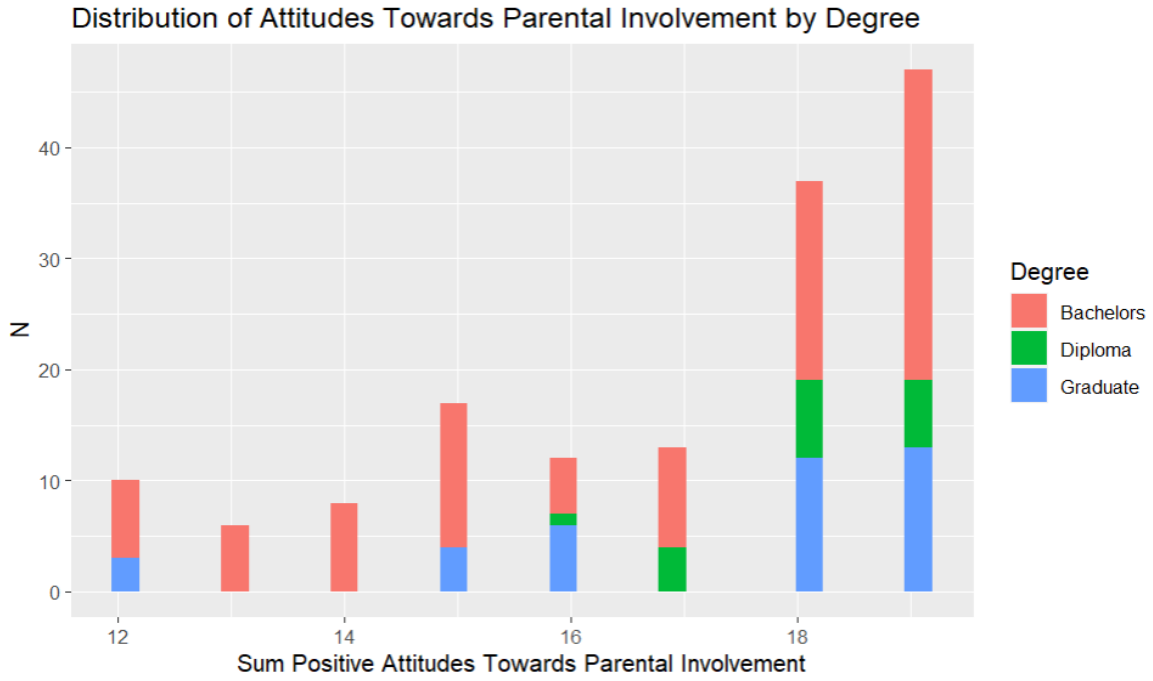


Visual Analysis Using Attitudes toward involvement as Dependent Variable

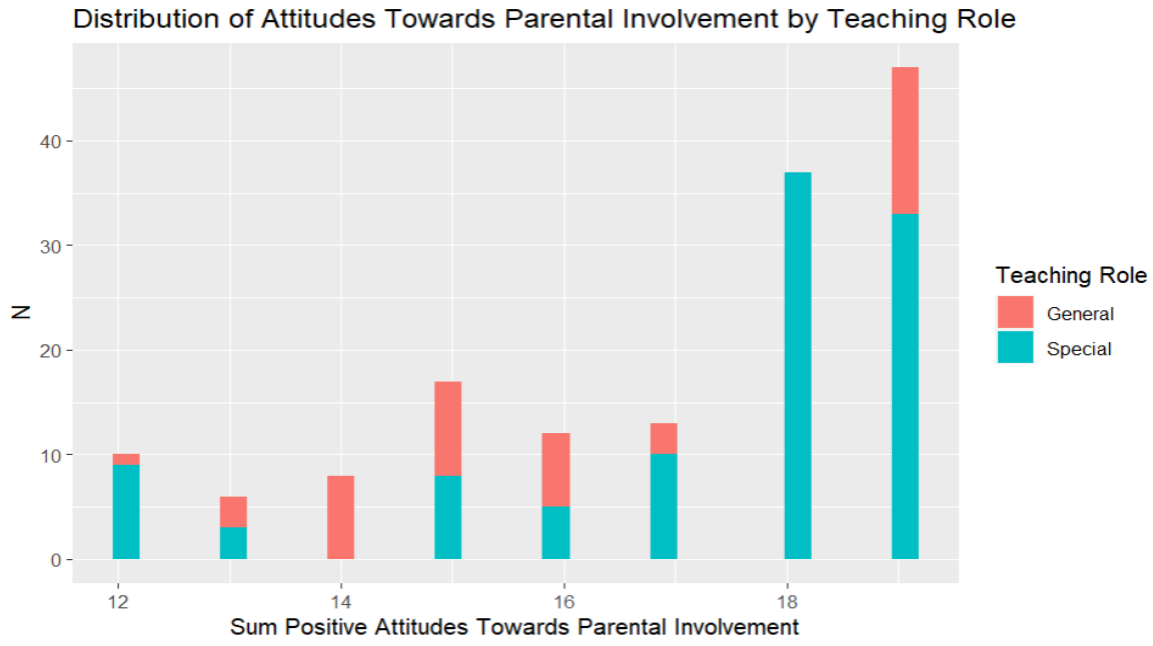
Sex.



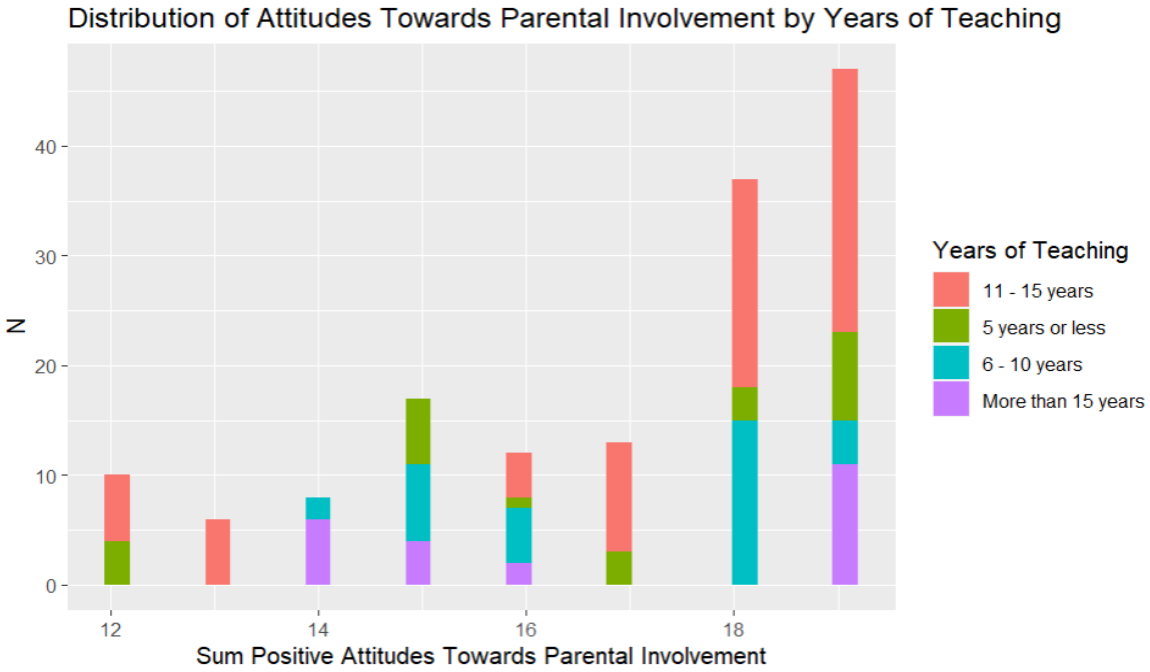
Degree Type.



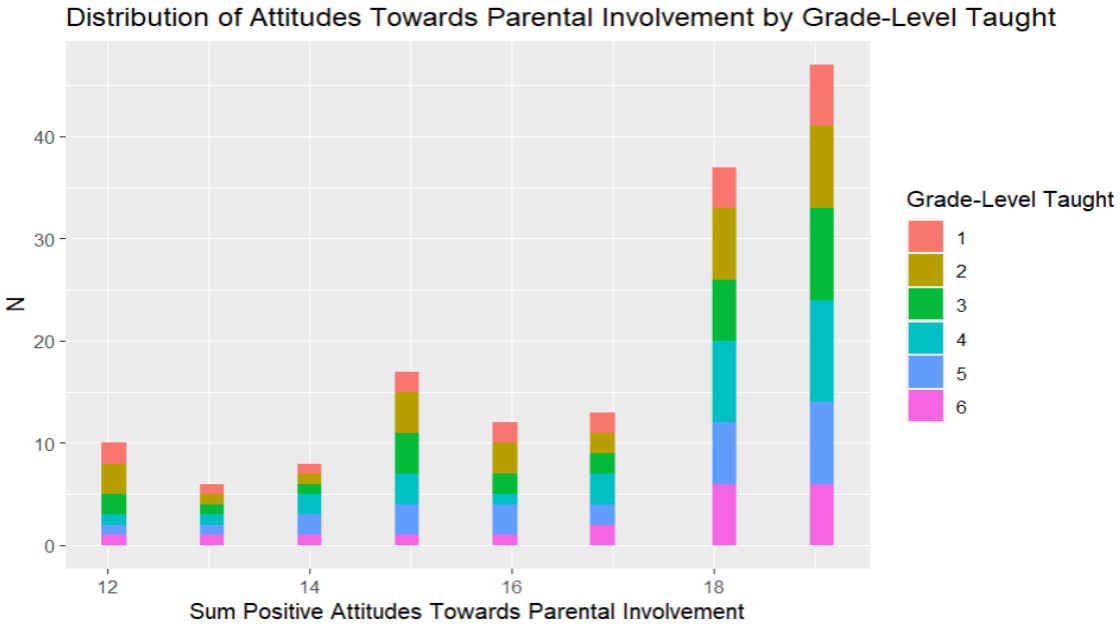
Type of Teacher.



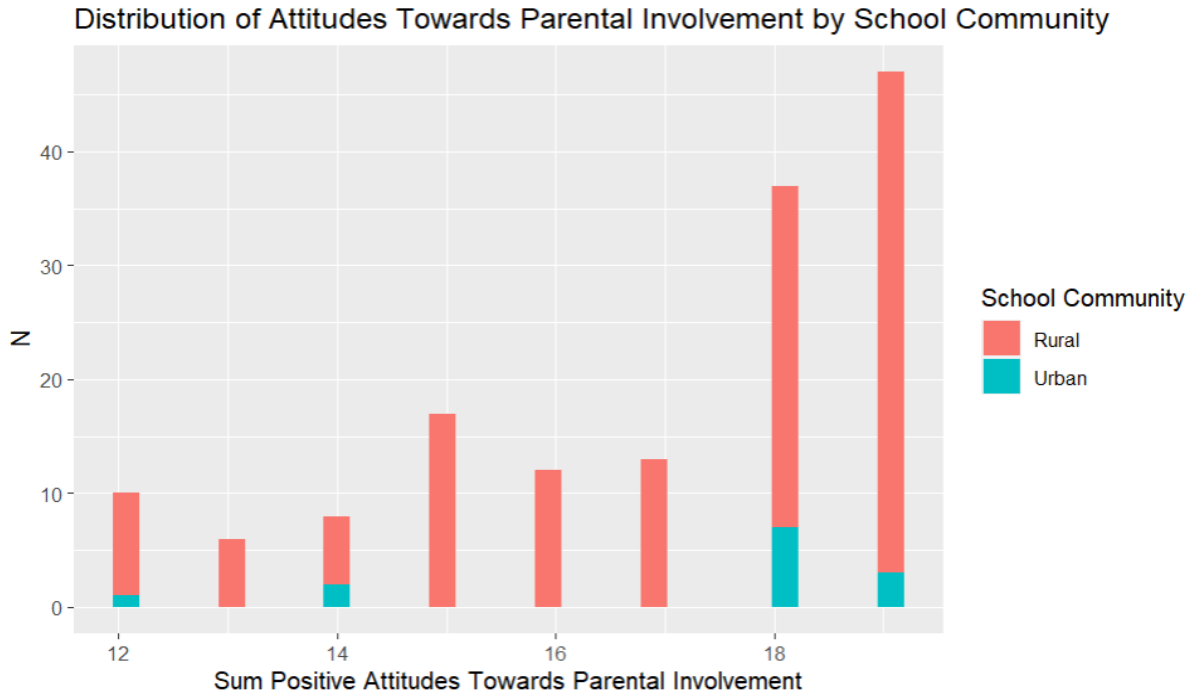
Years of Teaching.



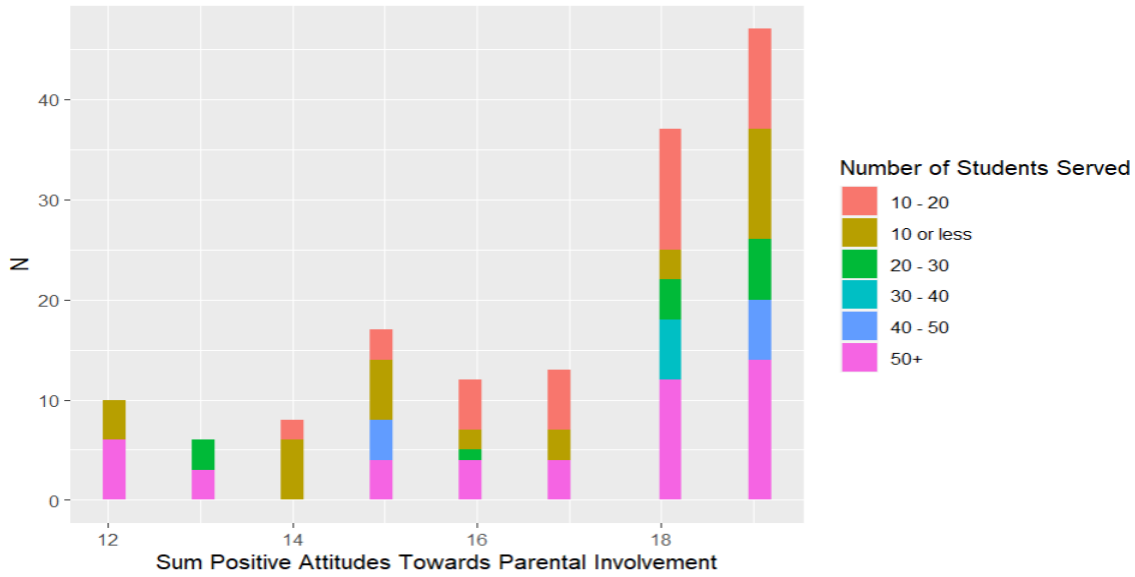
Grade- Level Taught.



School Community.

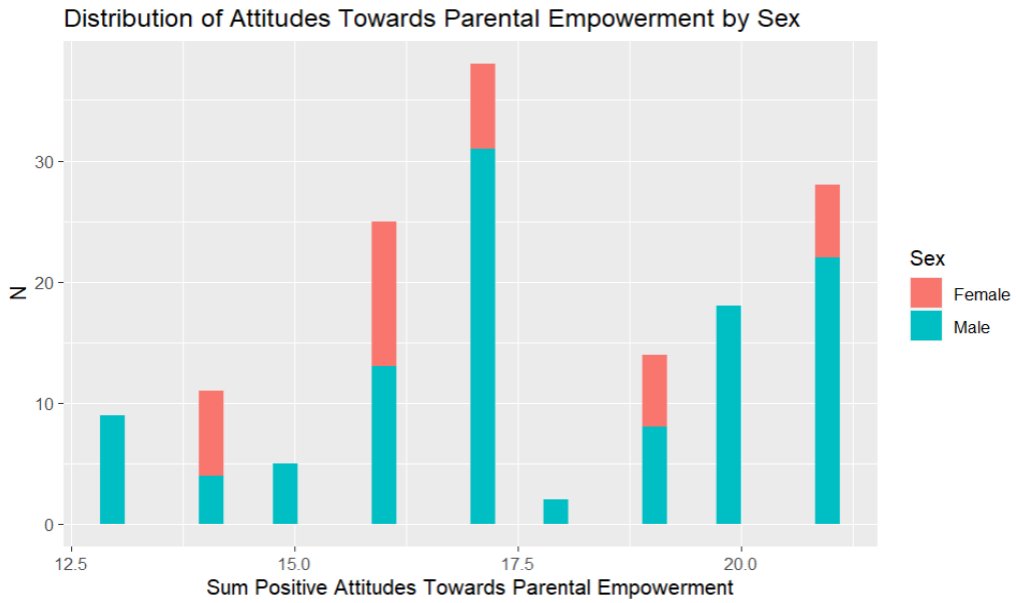


Number of students taught.

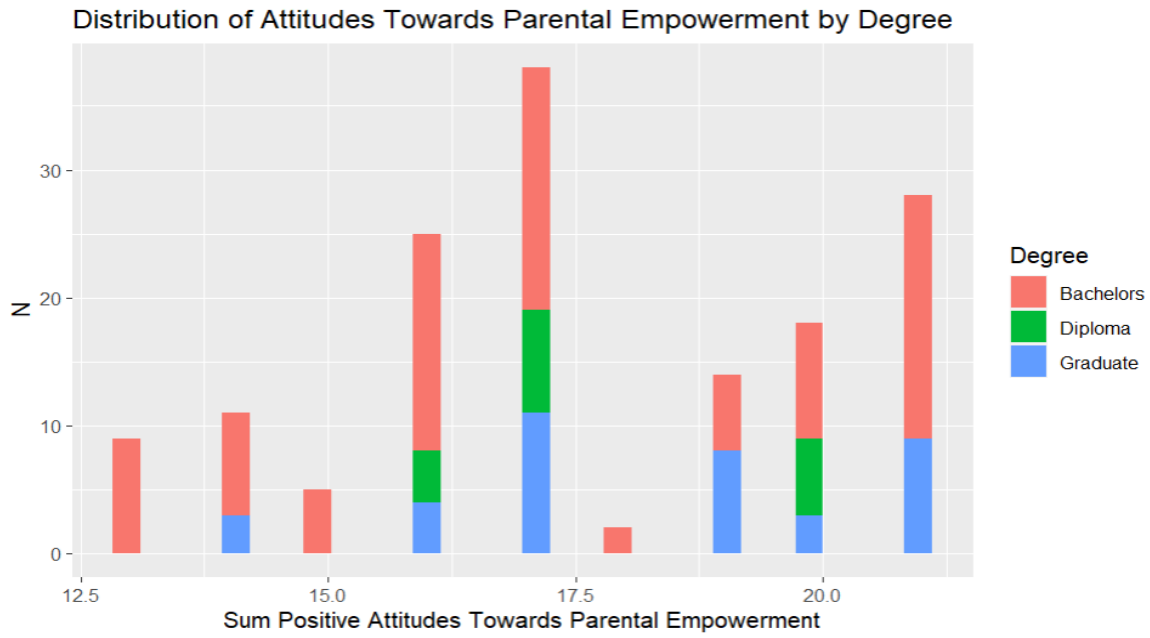


Visual Analysis Using Attitudes toward Empowerment as Dependent Variable

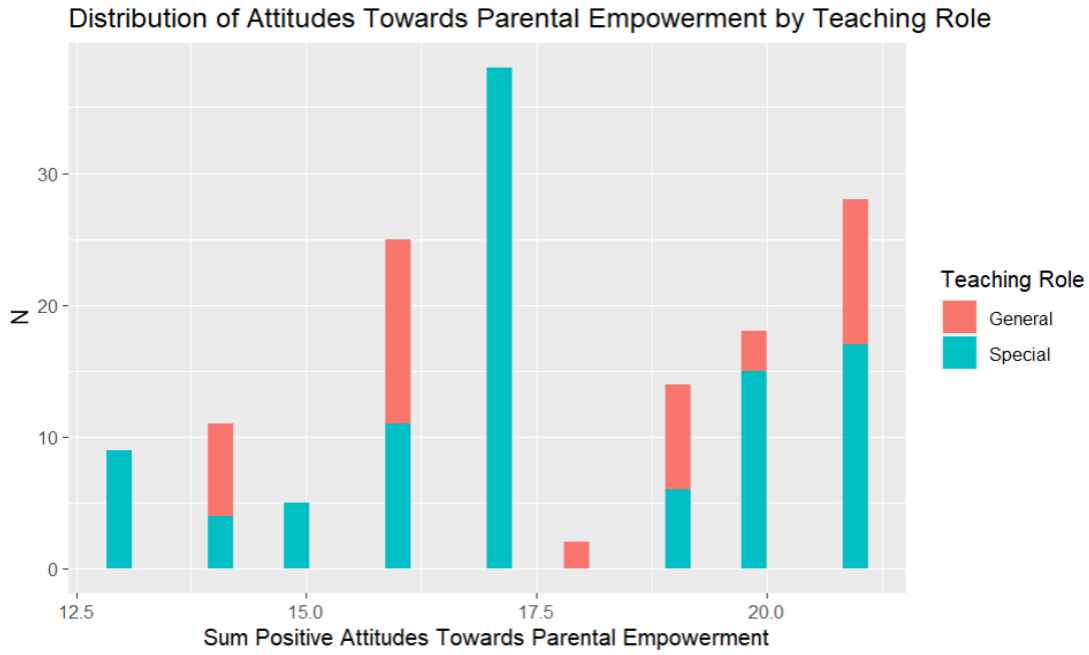
Sex.



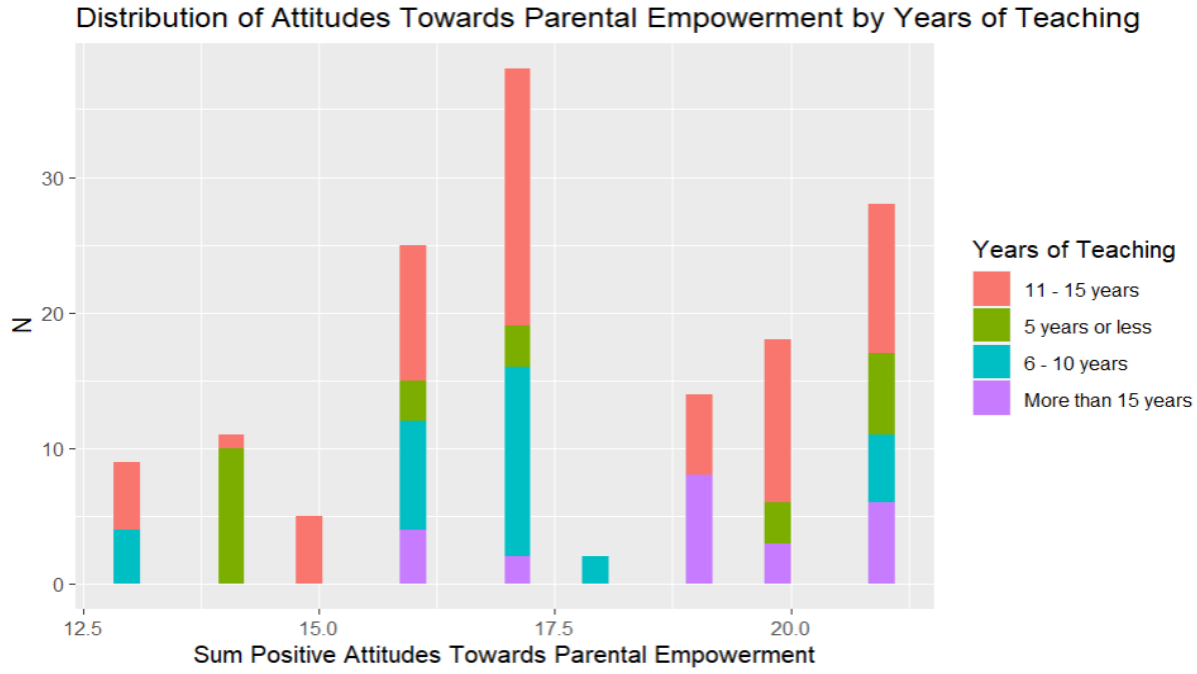
Degree Type.



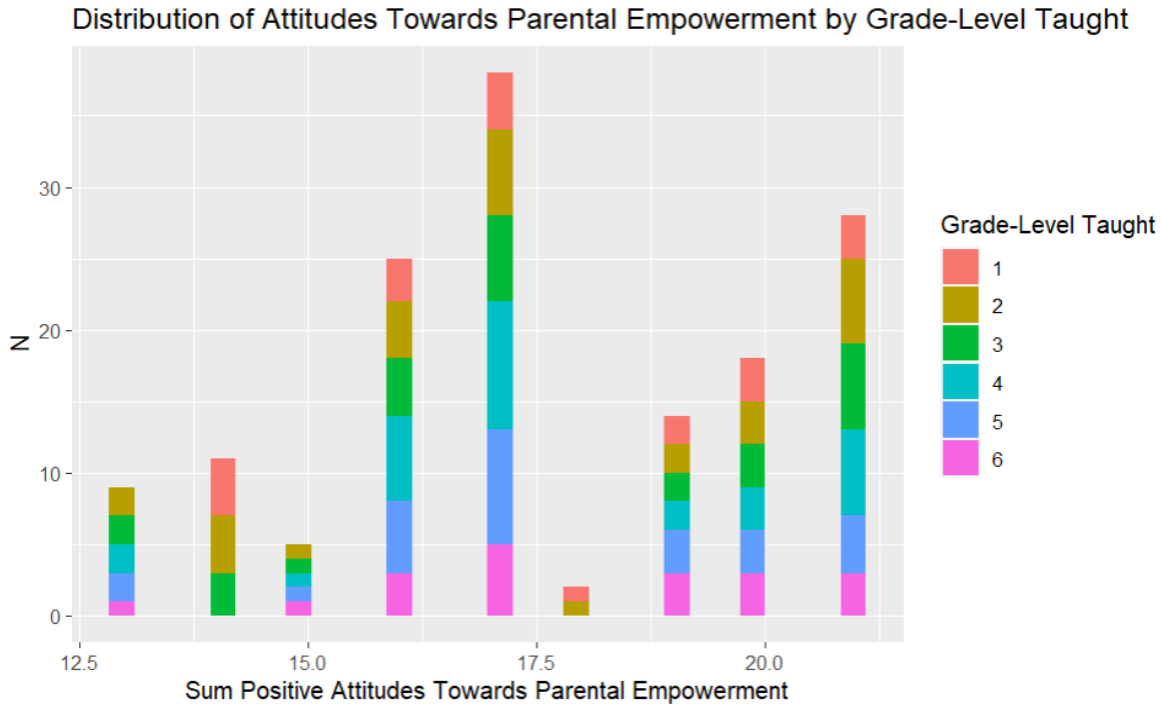
Teaching Role.



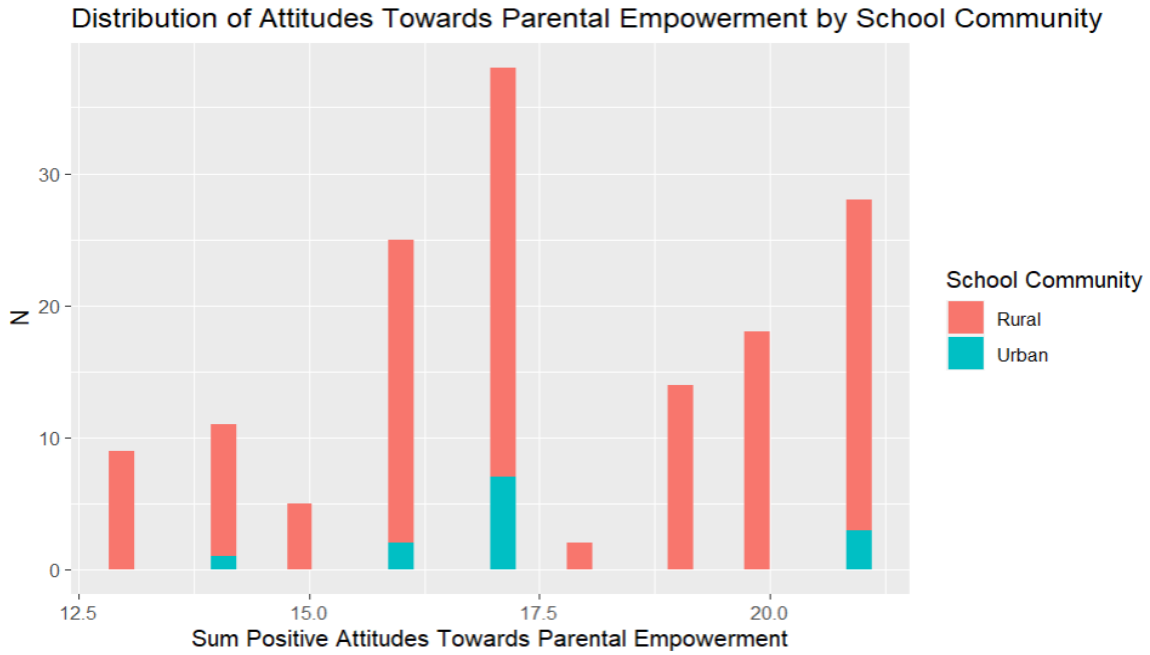
Years of Teaching.



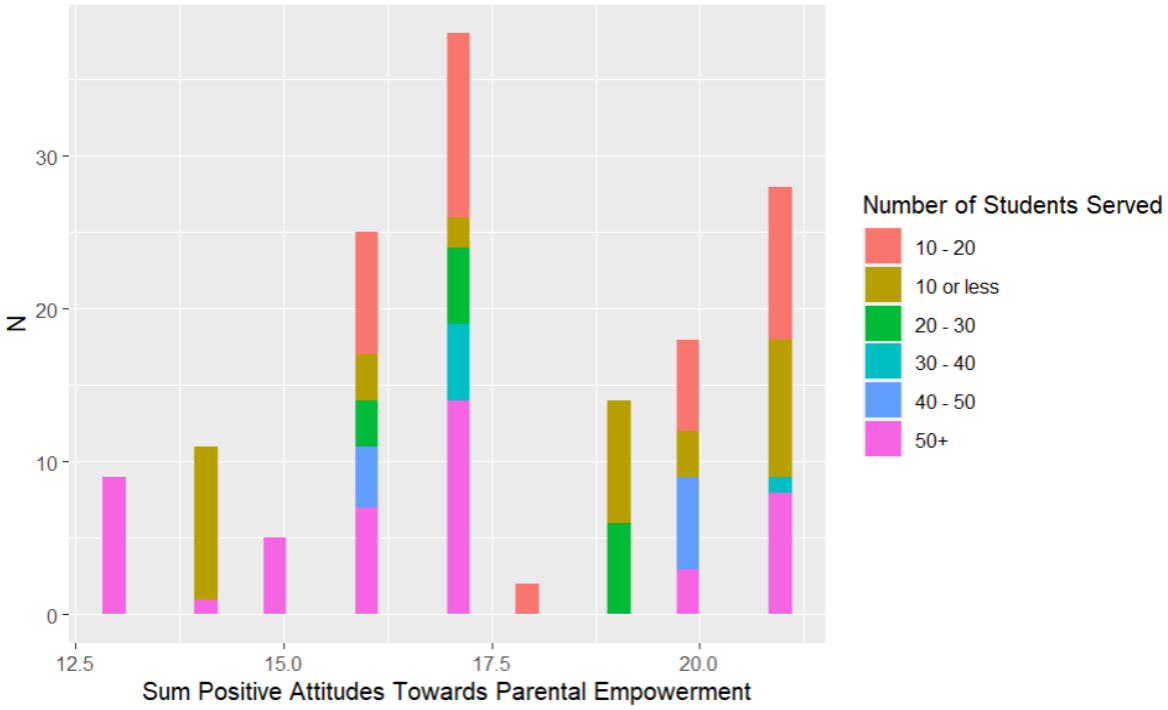
Grade- Level Taught.



School Community.



Number of students with taught.



Appendix B: Survey

رسالة دعوة

أنا محمد المالكي وأنا طالب دكتوراه في جامعة مينيسوتا. أود أن أدعوكم للمشاركة في دراسة بحثية تمثل أطروحة الدكتوراه الخاصة. تهدف هذه الدراسة إلى معرفة مستوى مشاركة أولياء أمور التلاميذ ذوي صعوبات التعلم مع المدرسة من وجهة نظر معلمي المرحلة الابتدائية ومعلماتها في منطقة جازان. وعلى وجه محدد، يهدف هذا المشروع البحثي إلى التعرف على مستوى المشاركة الحالية لأولياء أمور (آباء أو أمهات) تلاميذ صعوبات التعلم في منطقة جازان، والمعوّقات التي تحدّ من مشاركتهم واتجاهات معلمي ومعلمات صعوبات التعلم تجاه مشاركتهم. مشاركتكم ستساعد في فهم واقع مشاركة أولياء أمور تلاميذ صعوبات التعلم مع المدرسة في منطقة جازان، وبالتالي اقتراح خطوات عملية واستراتيجيات لتطوير وتحسين مشاركتهم.

لغرض هذه الدراسة البحثية، طورت استبانة تأخذ حوالي 10 دقائق لإكماله. لتكون مؤهلاً للمشاركة، يجب أن تكون عمرك 18 عامًا على الأقل وأن تكون قد عملت أو تعمل حاليًا كمعلم في مدرسة ابتدائية في جازان. المشاركة تطوعية تمامًا، ويمكنك التوقف عن المشاركة في أي وقت. إذا كنت مؤهلاً ومهتمًا بالمشاركة في هذه الدراسة البحثية الرجاء الضغط على الرابط التالي:
https://umn.qualtrics.com/jfe/form/SV_bQKjAQ5ozEh8VfM

يرجى العلم أن مشاركتكم ستعامل بسرية تامة، وستظل إجاباتكم مجهولة. إذا كان لديكم أي مخاوف أو أسئلة في أي وقت بخصوص الدراسة أو الإجراءات المتعلقة، يرجى عدم التردد في التواصل معي. يمكنكم التواصل معي عبر تطبيق واتساب على الرقم 966553659081+، الهاتف على الرقم 6124713031 1+، أو عبر البريد الالكتروني: almal005@umn.edu. أو يمكنكم التواصل مع مشرفتي الدراسية الدكتور جينفر ماكومس على البريد الإلكتروني: jmccomas@umn.edu، أو رقم الهاتف: 612-720-2596 1+

مع خالص التقدير،
محمد المالكي

بسم الله الرحمن الرحيم

أتقدم أنا محمد أحمد المالكي، محاضر في قسم التربية الخاصة في جامعة جازان وطالب دكتوراه في جامعة مينيسوتا الأمريكية، بطلب مشاركتكم في هذه الاستبانة (**متطلب أطروحة الدكتوراه الخاصة بي**). تهدف هذه الدراسة إلى معرفة مستوى مشاركة أولياء أمور التلاميذ ذوي صعوبات التعلم مع المدرسة من وجهة نظر معلمي المرحلة الابتدائية ومعلماتها في منطقة جازان. وعلى وجه محدد، يهدف هذا المشروع البحثي إلى التعرف على مستوى المشاركة الحالية لأولياء أمور (آباء أو أمهات) تلاميذ صعوبات التعلم في منطقة جازان، والمعوّقات التي تحدّ من مشاركتهم واتجاهات معلمي ومعلمات صعوبات التعلم تجاه مشاركتهم. مشاركتكم ستساعد في فهم واقع مشاركة أولياء أمور تلاميذ صعوبات التعلم مع المدرسة في منطقة جازان، وبالتالي اقتراح خطوات عملية واستراتيجيات لتطوير وتحسين مشاركتهم.

تحتوي الاستبانة على 39 فقرة، مقسمة إلى ثلاثة أجزاء. ولن يستغرق إكمال جميع الأقسام أكثر من 10 دقائق. مشاركتك في هذه الاستبانة تطوعية. يمكنك رفض المشاركة في البحث أو الخروج من الاستبانة في أي وقت.

ملاحظات هامة جدًا:

- جميع البيانات سيتم حفظها بسرية تامة حيث إنها محمية برقم سري هنا في موقع(Qualtrics) ، ولن يتم مشاركتها مع أي جهة أخرى، وكذلك لن يتم طرح أسئلة شخصية في الاستبانة (كالاسم الشخصي، البريد الإلكتروني، رقم الهاتف). لذا لا يمكن تحديد هوية المشارك في الاستبانة.
- **هذه الاستبانة هو متطلب أطروحة الدكتوراه الخاصة بي، لذا مشاركتكم مهمّا ومقدرة جدًا.**

هذا البحث تم مراجعته والموافقة عليه من قبل لجنة الأخلاقيات البحثية في إطار برنامج حماية البحوث على البشر (HRPP). لتقديم ملاحظاتك بشكل خاص إلى HRPP حول تجربتك في البحث، يُرجى الاتصال بخط خدمة مدافعي المشاركين في البحث على الرقم 612-625-1650 (رقم مجاني: 1-888-224-8636) أو زيارة z.umn.edu/participants. يُشجعك على التواصل مع HRPP في الحالات التالية:

- - إذا لم يتم الرد على أسئلتك أو مخاوفك أو شكاويك من قبل فريق البحث.
- - إذا لم تتمكن من التواصل مع فريق البحث.
- - إذا كنت ترغب في التحدث إلى شخص غير فريق البحث.
- - إذا كانت لديك أسئلة حول حقوقك كمشارك في البحث.
- - إذا كنت ترغب في الحصول على معلومات أو تقديم مدخلات حول هذا البحث.

للأسئلة والاستفسارات حول الاستبانة الرجاء التواصل على:

رقم الواتساب: 966553659081+
رقم الاتصال: 16124713031+
البريد الإلكتروني: almal005@umn.edu

الإقرار الإلكترونية:

يرجى تحديد اختيارك أدناه إذا كنت توافق أو تعارض المشاركة في الاستبانة. يمكنك طباعة نسخة من استمارة الموافقة هذه

لحفظها. عند النقر على زر "موافق" فهذا يدل على أنه قد قرأت/قراتي المعلومات المذكورة آنفاً، وعمرك أكبر من 18 سنة، وتوافق/ توافقين على نحو طوعي على المشاركة.

- موافق
- غير موافق

ما هو جنسك؟

- ذكر
- أنثى

ما هي الدرجة العلمية التي تحملها / تحملينها؟

- دبلوم في التربية الخاصة
- درجة البكالوريوس
- درجة الماجستير
- درجة الدكتوراه

اختر / اختاري ما ينطبق عليك حاليًا أو سابقًا: (قد يكون خيارًا واحدًا أو أكثر).

- معلم / معلمة صعوبات التعلم
- معلم / معلمة توحّد
- معلم / معلمة إعاقة سمعية
- معلم / معلمة إعاقة بصرية
- معلم / معلمة تربية فكرية
- معلم / معلمة ضعاف سمع
- معلم / معلمة فرط الحركة وتشتت الانتباه
- معلم / معلمة إعاقة حدية (يسير)
- معلم / معلمة فصل عادي. أعمل أو سبق لي العمل مع طلاب من ذوي صعوبات التعلم
- معلم / معلمة فصل عادي أعمل أو سبق لي العمل مع طلاب من ذوي التوحد
- معلم / معلمة فصل عادي أعمل أو سبق لي العمل مع طلاب من ذوي الإعاقة السمعية
- معلم/ معلمة فصل عادي أعمل أو سبق لي العمل مع طلاب من ذوي الإعاقة البصرية
- معلم/ معلمة فصل عادي أعمل أو سبق لي العمل مع طلاب من ذوي الإعاقة الذهنية
- معلم/ معلمة فصل عادي أعمل أو سبق لي العمل مع طلاب ضعاف السمع
- معلم/ معلمة فصل عادي أعمل أو سبق لي العمل مع ذوي فرط الحركة وتشتت الانتباه
- معلم/ معلمة فصل عادي أعمل أو سبق لي العمل مع ذوي الإعاقة الحدية (يسير)

ما هو عدد سنوات خبرتك في التدريس؟

- 5 سنوات أو أقل
- 6 - 10 سنوات
- 11 - 15 سنة
- 16 - 20 سنة
- أكثر من 21 سنة

ما هو الصف الدراسي الذي تدرسه/ تدرسينه حاليًا أو سابقًا؟ (قد يكون خيارًا واحدًا أو أكثر). نوع الفصل

- الأول الابتدائي
- الثاني الابتدائي
- الثالث الابتدائي
- الرابع الابتدائي
- الخامس الابتدائي
- السادس الابتدائي

حدد المدينة أو المحافظة التي تعمل / تعملين فيها كمعلم/ ة:

- مدينة جيزان
- محافظة صبيا
- محافظة أبو عريش
- محافظة أحد المسارحة
- محافظة العارضة
- محافظة جزر فرسان
- محافظة صامطة

بشكل تقريبي، ما هو عدد التلاميذ من ذوي الإعاقة سبق أن قمتَ / قمتِ بتدريسهم طوال سنوات عملك كمعلم / معلمة؟ عدد الطلاب:

- 10 تلاميذ أو أقل
- 10 - 20 تلميذًا
- 20 - 30 تلميذًا
- 30 - 40 تلميذًا
- 40 - 50 تلميذًا
- 50 تلميذًا فأكثر

واقع مشاركة أولياء أمور (آباء وأمهات) طلاب/طالبات ذوي صعوبات التعلم مع المدرسة:

العبارة	نهائيًا	نادرًا	غالبًا	دائمًا
1. يحضر أولياء الأمور اجتماعات الخطة التربوية الفردية.				
2. يزور أولياء الأمور المدرسة للاستفسار عن الوضع الأكاديمي لأبنائهم (خارج اجتماعات الخطة التربوية الفردية).				

هل تقيم مدرستك نشاط مجلس الآباء / الأمهات خلال العام الدراسي؟

- نعم
- لا

ما هو عدد المرات التي تقيم فيها مدرستك نشاط مجلس الآباء / الأمهات خلال العام الدراسي؟

- مرة واحدة
- مرتين
- ثلاث مرات
- أربع مرات
- خمس مرات
- أكثر من خمس مرات

هل تدعو مدرستك أولياء الأمور (آباء وأمهات) إلى نشاط مجلس الآباء / الأمهات؟

- نعم
- لا

العبارة	نهائيًا	نادرًا	غالبًا	دائمًا
3. يحضر أولياء الأمور مجلس أولياء الأمور (الآباء، الأمهات).				

هل تُنظم مدرستك أنشطة تطوعية بحيث يستطيع أولياء الأمور التطوع في هذه الأنشطة؟

- نعم
- لا

هل تدعو مدرستك أولياء الأمور (آباء وأمهات) إلى التطوع في الأنشطة التطوعية المتاحة؟

- نعم
- لا

العبارة	نهائيًا	نادرًا	غالبًا	دائمًا
4. يتطوع أولياء الأمور في الأنشطة الصفية.				
5. يتطوع أولياء الأمور في الأنشطة اللاصفية.				
6. يقوم أولياء الأمور بالرد على الرسائل النصية أو رسائل الواتساب المرسلة من المدرسة المتعلقة بابنهم/ بناتهم.				
7. يقوم أولياء الأمور بالتواصل عن طريق رسائل الواتساب لكي يسألوا عن الوضع الأكاديمي لأبنائهم/ بناتهم.				
8. يساعد أولياء الأمور أبناءهم / بناتهم في الواجبات المدرسية المنزلية.				

معوقات مشاركة أولياء أمور (آباء أو أمهات) التلاميذ ذوي صعوبات التعلم مع المدرسة (إلى أي درجة توافق أو لا توافق على العبارات التالية):

العبارة	لا أوافق بشدة	لا أوافق	أوافق	أوافق بشدة
1. يفتقر أولياء الأمور إلى المعرفة بحقوقهم القانونية التي تمكنهم من المشاركة في المدرسة.				
2. العقبات الاجتماعية مثل الطلاق تعيق مشاركة بعض				

أولياء الأمور مع المدرسة.				
3. يجد أولياء الأمور صعوبة في إيجاد الوقت للمشاركة مع المدرسة.				
4. يعيق التعليم المحدود لأولياء الأمور قدرتهم على المشاركة مع المدرسة.				
5. لا يرى أولياء الأمور جدوى من مشاركتهم مع المدرسة.				
6. يواجه بعض أولياء الأمور صعوبة في المشاركة مع المدرسة بسبب العيش بعيدًا عن المدرسة.				
7. يواجه بعض أولياء الأمور صعوبة في المشاركة مع المدرسة بسبب عدم توفر وسائل نقل، خصوصًا الأمهات.				
8. يفتقر المعلمون إلى المعرفة بالحقوق القانونية التي تمنح أولياء الأمور حق المشاركة مع المدرسة.				
9. المعلمون لا يرون جدوى من				

مشاركة أولياء الأمور مع المدرسة.				
10. يجد المعلمون صعوبة في إشراك أولياء الأمور، بسبب عبء العمل الثقيل وعدم وجود الوقت الكافي.				
11. غياب السياسات المدرسية المُنظمة لمشاركة أولياء الأمور في المدرسة.				
12. غياب التدريب والتطوير المهني للمعلمين المتعلق بمشاركة أولياء الأمور.				
13. عدم دعوة أولياء الأمور لحضور اجتماعات الخطة التربوية الفردية.				
14. عدم إيضاح أهمية مشاركة أولياء الأمور من قبل المعلمين لأولياء الأمور، خصوصًا في إعداد وتنفيذ الخطة التربوية الفردية.				
15. لا تقدم المدارس معلومات عن قنوات الاتصال للأمهات اللواتي يسعين إلى				

الاتصال بمعلمي أبنائهن، أو الآباء الراغبين في التواصل مع معلمي بناتهم (في حالات انفصال الوالدين مثلًا).				
16. غياب التواصل المُبكر (مثلاً: التواصل قبل أسبوع فقط من الاجتماع) مع أولياء الأمور بخصوص اجتماعات الخطة التربوية الفردية.				

اتجاهات المعلمين نحو مشاركة وتمكين أولياء أمور (آباء أو أمهات) التلاميذ ذوي صعوبات التعلم (إلى أي درجة توافق أو لا توافق على العبارات التالية):

العبارة	لا أوافق بشدة	لا أوافق	أوافق	أوافق بشدة
1. مشاركة أولياء الأمور أمر بالغ الأهمية لنجاح التلاميذ ذوي صعوبات التعلم أكاديميًا.				
2. مشاركة أولياء الأمور أمر بالغ الأهمية لنمو التلاميذ ذوي صعوبات التعلم سلوكيًا.				
3. مشاركة أولياء الأمور أمر بالغ الأهمية لنمو التلاميذ ذوي صعوبات التعلم اجتماعيًا.				
4. يجب عليّ كمعلم/ ة أن				

أسهّل مشاركة أولياء الأمور مع المدرسة.				
5. مشاركة أولياء الأمور قد تساعدني في تقديم تدريس فعال للتلاميذ ذوي صعوبات التعلم.				
6. يجب على المعلمين / المعلمات أن يبادروا إلى دعوة أولياء الأمور إلى المدرسة.				
7. يجب على أولياء الأمور المُبادرة إلى المشاركة مع المدرسة.				
8. يجب عليّ كمعلم/ ة أن أشجع أولياء الأمور على أن يعبّروا لي عن آرائهم تجاه تعليم أبنائهم / بناتهم.				
9. يجب عليّ كمعلم/ ة أن أشجع أولياء الأمور على أن يعبّروا لي عن مخاوفهم تجاه تعليم أبنائهم / بناتهم.				
10. يجب أن يكون أولياء الأمور قادرين على المساهمة في عملية صنع القرار				

فيما يتعلق بتعليم أطفالهم.				
11. يجب عليّ كمعلم/ة أن أقدم لأولياء الأمور المعلومات التي تتعلق بإعاقة ابنهم / ابنتهم لتعزيز كفاءتهم الذاتية فيما يتعلق بإعاقة ابنهم / ابنتهم.				
12. يجب عليّ كمعلم/ة أن أقدم لأولياء الأمور المعلومات المتعلقة بالتقدم الأكاديمي لابنهم / ابنتهم لتعزيز كفاءتهم الذاتية.				
13. يجب على المدارس توفير دورات تدريبية / ورش عمل لأولياء الأمور لتعزيز كفاءتهم الذاتية فيما يتعلق بإعاقة ابنهم / ابنتهم، أهمية مشاركتهم مع المدرسة، طرق مشاركتهم مع المدرسة.				
14. يجب عليّ كمعلم/ة أن أقدم المواد التي سيتم مناقشتها في اجتماع الخطة التربوية الفردية لأولياء الأمور، قبل الاجتماع بأسبوع على الأقل، لكي يتسنى لأولياء				

الأمور التحضير للاجتماع والمشاركة الفعّالة خلال الاجتماع.				
15. يجب عليّ كمعلم/ة أن أشجع أولياء الأمور على الدفاع عن حقوق ابنهم / ابنتهم التعليمية.				

Invitation Letter

My name is Mohammed Almalki, and I am a Ph.D. student at the University of Minnesota. I am reaching out to invite you to participate in a research study for my Ph.D. dissertation. This study seeks to understand experiences, attitudes, and obstacles surrounding parental involvement in elementary schools in Jazan, Saudi Arabia. I am specifically trying to understand these factors in relation to students with learning disabilities. Your input would help educators identify areas for improvement to enhance parental involvement towards better educational outcomes for students with learning disabilities.

For the purposes of this research study, I developed an online survey that will take approximately 10 minutes to complete. In order to be eligible to participate, you must be at least 18 years old and either work or have previously worked as an elementary school teacher in Jazan, Saudi Arabia. Participation is completely voluntary, and you may stop participating at any time. If you are eligible and interested in participating in this research study, please click the following link to learn more: (https://umn.qualtrics.com/jfe/form/SV_bQKjAQ5ozEh8VfM). Your participation and information are treated completely confidentially and any responses you provide will remain anonymous.

If you have any concerns or questions at any time regarding the study or the procedures involved, please feel free to contact me via WhatsApp at +966553659081, phone at 612-471-3031, or email at almal005@umn.edu. Or you may contact Dr. Jennifer McComas, my academic advisor, via email at jmccomas@umn.edu or phone number at 612-720-2596.

Thank you for considering my invitation. I genuinely appreciate your time and support.

Best regards,
Mohammed Almalki

Welcome to this online survey!

As part of my PhD dissertation, I am conducting a survey to gather the perspectives of teachers who work with students with learning disabilities in Jazan, Saudi Arabia, regarding parent involvement. The main objective of this project is to assess the level, obstacles, and attitudes regarding parental involvement. I kindly ask you to participate in this survey, which can be completed online. The survey will take approximately 10 minutes to complete 39 statements, and your responses will remain anonymous. Your honest and thoughtful input is crucial as it will help me identify areas that need improvement regarding parent involvement in Jazan.

Your participation in this survey is voluntary. You may refuse to take part in this research or exit the survey at any time without penalty. You are free to decline to answer any particular question you do not wish to answer for any reason.

You will receive no direct benefits from participating in this research study. However, your responses may help me learn more about parent involvement from your perspective as a teacher who works with students with learning disabilities in Jazan, Saudi Arabia.

Your survey answers will be recorded here on Qualtrics where data will be stored in a password protected electronic format. I am not asking for your name or any other identifying information. Further, Qualtrics does not collect identifying information such as your name, email address, or IP address. Therefore, your responses to this survey will remain anonymous. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study.

This research has been reviewed and approved by an IRB within the Human Research Protections Program (HRPP). To share feedback privately with the HRPP about your research experience, call the Research Participants' Advocate Line at 612-625-1650 (Toll Free: 1-888-224-8636) or go to z.umn.edu/participants. You are encouraged to contact the HRPP if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

Contact

If you have questions at any time about the study or the procedures, you may contact me, Mohammed Almalki via WhatsApp at +966553659081 or phone at 612-471-3031 or via email at almal005@umn.edu

Electronic Consent

Please select your choice below if you agree or disagree to participate. You may print a copy of this consent form for your records. Clicking on the "Agree" button indicates that you have read the above information, you are 18 and above, and you voluntarily agree to participate.

o Agree

o Disagree

Survey

(This is the English version. The original version is written in Arabic. Arabic version is the one that will be share with teachers)

Demographic and Occupational Information:

- What is your sex?
  - Male
  - Female

- What degree do you hold?
  - Diploma in special education
  - Bachelor's degree
  - Master's degree
  - Doctoral degree

- Select one option applies to you:
  - Teacher of learning disabilities (LD)
  - Teacher of autism
  - Teacher of deafness
  - Teacher of visual disabilities
  - Teacher of intellectual disability
  - Teacher of hearing impairment
  - Teacher of attention-deficit/hyperactivity disorder (ADHD)
  - Teacher of borderline intellectual functioning (BIF)
  - General education teacher who is teaching or has taught students with learning disabilities (LD)
  - General education teacher who is teaching or has taught students with autism
  - General education teacher who is teaching or has taught students with deafness
  - General education teacher who is teaching or has taught students with visual disabilities
  - General education teacher who is teaching or has taught students with intellectual disability
  - General education teacher who is teaching or has taught students with hearing impairment
  - General education teacher who is teaching or has taught students with attention-deficit/hyperactivity disorder (ADHD)
  - General education teacher who is teaching or has taught students with borderline intellectual functioning (BIF)

- How long have you been working as a teacher?
    - 5 years or less
    - 6 - 10 years
    - 11- 15 years
    - 16-20 years
    - 21 years or more

- What grade do you teach? (*Select all that apply to you if you teach or have taught multiple grades*)
    - First grade
    - Second grade
    - Third grade
    - Fourth grade
    - Fifth grade
    - Sixth grade

- Select the city/ town you work in as a teacher:
    - Jizan
    - Sabya
    - Abo Arashi
    - Ahad Almasrah
    - Al Aridhah
    - Farasan island
    - Samtah

- Approximately how many students with disabilities have you served throughout your years of teaching.
    - 10 or less
    - 10 - 20
    - 20 – 30
    - 30 – 40
    - 40 – 50
    - 50 and more

Please rate the following statements based on your experience with parent involvement.

1. **Experience.**

Response options for each statement:

- Never
- Rarely
- Often
- Always

Statements

1. How often parents attend Individualized Education Program (IEP) meetings.
2. How often parents visit school to ask about their child's academic progress.

- Does your school have school conferences during the academic year?
  - Yes **(If the teacher selects yes, the next questions and survey item #3 will appear)**
  - No

- How many times does your school hold school conferences during the academic year?
  - One time
  - Two times
  - Three times
  - Four times
  - Five times
  - More than five times

- Does your school invite the parents to school conferences during the academic year?
  - Yes
  - No

3.How often parents attend school conferences during the academic year.

- Does your school organize volunteer activities so parents can participate in these activities?
  - Yes (**If the teacher selects yes, the next question will appear)**
  - No
- Does your school invite the parents to volunteer for the activities?
  - Yes
  - No

4. How often parents volunteer in classroom activities.
5. How often parents volunteer in extracurricular activities.
6. How often parents reply to my WhatsApp messages when communication is about their child.
7. How often parents initiate WhatsApp messages to me asking about their child's academic progress.
8. How often parents support their child with assignments at home.

3. **Obstacles**

Response options for each statement:

- Strongly agree
- Agree
- Disagree
- Strongly disagree

(P) = Parent-level obstacles
(S) = School and teacher level obstacles

Statements

1. Parents lack knowledge about their legal rights that would enable them to be involved with school. (P)
2. Social obstacles such as divorce hinder some parents from being. (P)

3. Parents struggle to find sufficient time to increase their involvement with the school. (P)
4. Parents' limited education hinders their ability to become actively involved. (P)
5. Parents perceive little value in getting involved with the schools. (P)
6. Parents face challenges in getting involved with the school due to living far away from the school. (P)
7. Parents face challenges in getting involved with the school due to the lack of transportation, especially mothers. (P)
8. Teachers lack knowledge of the legal rights that grant parents the ability to be involved with the school. (S)
9. Teachers perceive little value for parental involvement in the school. (S)
10. Teachers struggle to involve parents due to their heavy workload and do not have enough time. (S)
11. The lack of school policy hinders parental involvement. (S)
12. The lack of professional development training for teachers hinders parental involvement. (S)
13. Teachers do not invite parents to the IEP meetings. (S)
14. Teachers do not emphasize to the parents the importance of their involvement in the IEP development process. (S)
15. Schools do not provide information on communication channels for mothers seeking to contact their sons' teachers or fathers wanting to communicate with their daughters' teachers (*schools are segregated based on sex*). (S)
16. There is a lack of timely communication with parents prior to the IEP meeting (e.g., reaching out to the parents only a week before the IEP meetings). (S)

3. Attitudes of teachers toward parent involvement and parent empowerment.

Response options for each statement:

- Strongly agree
- Agree
- Disagree
- Strongly disagree

(I) = Parent involvement
(E) = Parent empowerment

Statements

1. I believe that parent involvement is critical to the academic development of the student with LD. (I)
2. I believe that parent involvement is critical to the behavioral development of the student with LD. (I)
3. I believe that parent involvement is critical to the social development of the student with LD. (I)
4. I believe that as a teacher I should facilitate parent involvement. (I)
5. I believe that parent involvement will help me as a teacher to effectively support students with LD. (I)
6. I believe that teachers should initiate parent involvement. (I)
7. I believe that parents should initiate involvement. (I)
8. I believe that as a teacher I should support parents to express their opinions about their child's education. (E)
9. I believe that parents should be able to voice their concerns to me. (E)

10. I believe that parents should be able to contribute to the decision-making process regarding their child's education. (E)
11. I believe that I should provide parents with information regarding their child's disability to enhance their self-efficacy about LD. (E)
12. I believe that I should provide parents with information regarding their child's educational progress to enhance their self-efficacy about their child's education. (E)
13. I believe that schools should provide training/ workshops to parents to enhance their self-efficacy on their child disabilities, the importance of their involvement with the school, and methods of how they can get involved with the school. (E)
14. I believe that as a teacher I should provide parents with materials at least one week before the IEP meeting to help them actively participate during the IEP meeting. (E)
15. I believe that as a teacher I should support parents to advocate for their child with education rights. (E)

Appendix C: IRB approvals

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Human Research Protection Program
Office of the Vice President for Research

Room 350-2
McNamara Alumni Center
200 Oak Street S.E.
Minneapolis, MN 55455

612-626-5654
irb@umn.edu
https://research.umn.edu/units/irb

EXEMPTION DETERMINATION

July 5, 2023

Jennifer McComas

612-624-5854
jmccomas@umn.edu

Dear Jennifer McComas:

On 7/5/2023, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	Perspectives of Teachers of Students with Learning Disabilities on Parent Involvement in Jazan, Saudi Arabia: Experience, Obstacles, and Attitudes.
Investigator:	Jennifer McComas
IRB ID:	STUDY00019615
Sponsored Funding:	None
Grant ID/Con Number:	None
Internal UMN Funding:	None
Fund Management Outside University:	None
IND, IDE, or HDE:	None
Documents Reviewed with this Submission:	• hrp-580_-_social_template_protocol.docx, Category: IRB Protocol; • Consent - E.docx, Category: Consent Form; • Arabic Survey.docx, Category: Other; • E- Invitation Letter.docx, Category: Recruitment Materials; • A - Invitation Letter.docx, Category: Recruitment Materials; • Consent - A.docx, Category: Consent Form; • English survey.docx, Category: Other;

The IRB determined that this study meets the criteria for exemption from IRB review. To arrive at this determination, the IRB used "WORKSHEET: Exemption (HRP-312)." If you have any questions about this determination, please review that Worksheet in the HRPP Toolkit Library and contact the IRB office if needed.

This study met the following category for exemption:

• (2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (ii) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

Ongoing IRB review and approval for this study is not required; however, this determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities impact the exempt determination, please submit a Modification to the IRB for a determination.

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the HRPP Toolkit Library on the IRB website.

For grant certification purposes, you will need these dates and the Assurance of Compliance number which is FWA00000312 (Fairview Health Systems Research FWA00000325, Gillette Children's Specialty Healthcare FWA00004003).

We strive to provide clear, consistent, and timely service to maintain a culture of respect, beneficence, and justice in research. Complete a brief survey about your experience.

Sincerely,

Bri Warner
IRB Analyst

Kingdom of Saudi Arabia
Ministry of Education
Jazan University

المملكة العربية السعودية
وزارة التعليم
جامعة جازان

Standing Committee for Scientific Research - Jazan University (HAPO-10-Z-001)	**Reference No.:** REC-44/12/721
Research Title: perspectives of Teachers of Students with Learning Disabilities on Parent Involvement in Jazan, Saudi Arabia: Experience, Obstacles, and Attitudes.	**Date of decision:** 09 July 2023
Principal Investigator: Mohammed Ahmed Almalk	**Sponsor:** -

The following item [✓] have been received and reviewed in connection with the above study to be conducted by the above investigator.

[✓] Application for Research Ethics Committee approval
[✓] Research proposal/protocol
[✓] Patient Information Sheet & Consent Form
[✓] Questionnaire
[✓] Investigator's CV.

The committee's decision is:

[✓] Approved
[ ] Modification required (item specified below or in a companying letter)
[ ] Rejected (reasons specified below or in a companying letter)

Comments: Investigator is required to:

1. Report any protocol deviation/violations to the Ethics Committee.
2. Provide progress and closure reports to the Ethics Committee.
3. The principal investigator has to contact the responsible person at the research site or the responsible entities for obtaining permission for research implementation and disclosure of the outcomes before publication.

Chairman of Standing Committee for Scientific Research

Dr.\ Hassan Ahmad Alhazmi

الرقم: ..... التاريخ: ...../...../..... المرفقات:

الموضوع: تسهيل مهمة الباحث محمد المالكي

المكرمـ/ـة مدير/ة مكتب تعليم **وفقهـ/ـا الله**
المكرمـ/ـة مدير/ة إدارة التربية الخاصة **وفقهـ/ـا الله**

السلام عليكم ورحمة الله وبركاته

إشارة إلى خطاب سعادة عميد كلية التربية بجامعة جازان رقم ٤٤٠١٣٣٠٦٩٠ وتاريخ ٢٣/ ١٢/ ١٤٤٤هـ، المتضمن طلب تسهيل مهمة الباحث/ محمد أحمد المالكي والذي يقوم بإعداد دراسة بحثية بعنوان: **مشاركة أولياء أمور تلاميذ ذوي صعوبات التعلم مع المدرسة من وجهة نظر معلمي المرحلة الابتدائية ومعلماتها في منطقة جازان**، ولاستكمال متطلبات الدراسة سوف يقوم الباحث بتطبيق أداة البحث (استبانة) على عينة من معلمي ومعلمات المرحلة الابتدائية.

عليه آمل تسهيل مهمة الباحث بتطبيق أداة الدراسة على العينة المذكورة من خلال الرابط:

https://cutt.us/nTWtt

وتقبلوا تحياتي وتقديري،،،

مدير إدارة التخطيط والتطوير

د: عصام بن محمد كريري

صورة مع التحية لسعادة المساعدين
صورة مع التحية للمشرف على مكتب المدير العام