January 2022

Internet Training Modules Targeting Home-Based Parent Involvement With Students In Early Childhood Special Education

Nicole Marie Reybok

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INTERNET TRAINING MODULES TARGETING HOME-BASED PARENT
INVOLVEMENT WITH STUDENTS IN EARLY CHILDHOOD SPECIAL
EDUCATION

by

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A Dissertation in Practice

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Education

Grand Forks, North Dakota

August
2022

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This dissertation in practice, submitted by Nicole Marie Reybok, in partial fulfillment of the requirements of the degree of Doctor of Education from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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This dissertation in practice is being submitted by the appointed advisory committee as having met all the requirements of the School of Graduate Studies at the University of North Dakota and is hereby approved.

Chris Nelson
Dean of the School of Graduate Studies

7/13/2022
Date

PERMISSION

Title: Internet Training Modules Targeting Parent Involvement With Students in Home-Based Early Childhood Special Education

Department: Education Leadership

Degree: Doctor of Education

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Nicole Marie Reybok
July 12, 2022

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ABSTRACT

Parental engagement is an essential element in the social-emotional and academic achievement of students. However, barriers to this involvement continue to exist. Barriers may take many forms including time, school and staff perceptions and bias, power dynamic, communication with teachers, curriculum, and differences in language and culture. Barriers to parent engagement are typically increased for parents of children with special education needs. Therefore, it is the responsibility of school staff to identify barriers that may exist for families and help them to develop solutions to overcome those barriers. This quantitative study investigated possible barriers to home-based parent involvement in Early Childhood Special Education (ECSE) classrooms using the Hoover-Dempsey Model of Family Involvement as a framework. Data was collected by surveying parents of three to five-year-old children receiving services in six Early Childhood Special Education classrooms within the Grand Forks Public Schools District. Findings of the study indicated that time, energy, and subject knowledge were identified as the most frequent barriers to home-based involvement experienced by parents and caregivers of children enrolled in the ECSE program. These findings indicated that parents' decisions to become involved were affected by their perceived life context which aligned with the HD-S model level 1. Additional findings indicated that teachers were not providing parents with suggestions for educational activities that were representative

of their home culture. Based on this information, a solution was developed to help families overcome these barriers to home-based family involvement.

INTRODUCTION

Overview of the Problem

Special Education has been on the forefront of parent engagement. Since the inception of the Education for All Handicapped Children Act (EHA, 1975), special educators have attempted to engage parents as meaningful partners in the construction of their child's Individualized Education Program (IEP), an intervention plan developed by a team for a child between the ages of 3-21 with a disability (Howard et al., 2013). Despite government mandates and a body of research supporting the engagement of parents as full partners in their children's education, barriers to that engagement continue to exist. Schools and educators often state that they want parents to be more involved in their children's education (Baker et al., 2016), but often school staff do not consider adequate supports that families may need to become more involved. Investigating barriers that may be preventing parents from engaging in their children's educational activities is important if school staff want to develop positive partnerships with parents.

Parents and caregivers know their children best. They know their children's strengths, struggles, and personalities. Research shows parent engagement can have both academic and social-emotional benefits (Avnet et al., 2019; Jarrett & Coba-Rodriguez, 2019; Lin et al., 2019; Puccioni, 2018; Sonnenschein & Sun, 2016; Sheldon & Epstein, 2002). Research has also shown that parent engagement positively influences a child's

school readiness skills (Jarrett & Coba-Rodriguez, 2019). Furthermore, parents that are engaged pass on a positive attitude toward learning to children.

Purpose of the Study

Schools and families are both essential elements in a child's education and overall development. Research has shown that engaging families in collaborative partnerships with schools is associated with positive student outcomes in the areas of literacy, numeracy, and behavior (Avnet et al., 2019; Jarrett & Coba-Rodriguez, 2019; Lin et al., 2019; Puccioni, 2018; Sheldon & Epstein, 2002; Sonnenschein & Sun, 2016). These positive outcomes associated with parent engagement can be especially relevant for families with students who have disabilities. Federal law mandates that parents of students with disabilities be afforded meaningful participation in their child(ren)'s education (Individuals With Disabilities Education Act, 2004/2022). However, what constitutes engagement can be defined differently by schools and families (McWayne et al., 2013; Puccioni, 2018; Schneider & Arnot, 2018). Schools tend to measure involvement by a parent's participation on campus; however parents, especially those from non-dominant cultures, may consider teaching traditions, life skills, manners, and discipline as involvement (McWayne et al., 2013). Research and the terms used to describe parent participation in education have changed over the years.

In the beginning, researchers used the term "parent involvement" and "family engagement." Parent involvement has been defined as behaviors shown by parents in either the home or school setting that are meant to develop or support their child's academic and social-emotional skills to facilitate success (Roy & Giraldo-Garcia, 2018). The U.S. Department of Health and Human Services and the U.S. Department of

Education (2016) defined family engagement as the "systematic inclusion of families in activities and programs that promote children's development, learning, and wellness, including in the planning, development, and evaluation of such activities, programs, and systems" (p. 1). Recently, some researchers have chosen to use the phrase "family-school partnerships" (Yamauchi et al., 2017, p. 9). Family-school partnerships are defined as "child-focused approaches wherein families and professionals cooperate, coordinate, and collaborate to enhance opportunities and success for children" across developmental domains (Nitecki, 2015, p. 198).

When there are high levels of family engagement, schools see better grades, more time spent on homework, and better attendance (Cheung & Pomerantz, 2015; Hoover-Dempsey & Sandler, 1997; Hoover☐Dempsey et al., 2005; Perna & Titus, 2005; Walker et al., 2005). Low levels of family engagement have been associated with more problem behaviors in school, lower social functioning, and lower academic achievement (El Nokali et al., 2010; Garbacz et al., 2017). The onus is on schools to find ways to increase family engagement.

There are several benefits to children when parents are engaged in their children's education. For example, parents usually have greater educational aspirations for their children than teachers. Parents usually experience improved communication with their children (Loughlin-Presnal & Bierman, 2017). Parents have more positive attitudes towards their children's teachers (Lin et al., 2019). Parents often feel more confident in their abilities to help their children with home-based learning activities (Hornby & Blackwell, 2018). Home-based learning in early childhood academics is typically defined as early literacy and numeracy practices such as book reading, storytelling, counting

activities, and naming of shapes (Puccioni, 2018). Home-based learning can also incorporate reading or other academic or intellectually stimulating activates such as visiting museums, zoos. or attending educational events (Anthony & Ogg, 2019). Parents gain a better understanding of formal and informal school rules as well as an appreciation and greater knowledge of the importance of their role in their children's education (Baker et al., 2016; Jarrett & Coba-Rodriguez, 2019; McCormick et al., 2020; Schneider & Arnot, 2018).

Families can encounter barriers to engagement with schools including: time, language, access to transportation, difficulties with complexity of curriculum, and previous negative school experiences (Baker et al., 2016; Breitenstein et al., 2017; Erdener, 2016). It is up to school staff to develop strategies that will help families overcome barriers to engagement; this is especially true for families with students in preschool. Only when barriers are removed can families and schools develop a true partnership to support the learning of children.

Significance of the Study

Preschool is an important period where children transition from learning in the home to learning in the school environment. This early learning experience sets the tone for a child's K-12 education. Preschool is increasingly becoming a standard part of children's formal education in the United States (Grindal et al., 2016; Sabol et al., 2018). However, not all preschool-age children are able to learn at the same rate or in the same manner. Children that experience delays and disabilities require individualized instruction to target their unique educational needs, otherwise known as special education. Early Childhood Special Education is "a field of study devoted to serving the developmental

needs of infants, toddlers, and preschoolers with, and at risk of disabilities, and their families" (Howard et al., 2013, p. 398).

Families and caregivers of students with disabilities play a vital role in their children's education (Curtiss et al., 2015). Moreover, parental involvement is specifically addressed in the Individuals With Disabilities Education Act (IDEA, 2004/2022). Parents and caregivers are with their children across a variety of contexts, which puts parents in a place to reinforce and foster development of a variety of skills with their children including: developmental skills, academics, language, and social emotional skills (Curtiss et al., 2015). Despite a legal mandate in the IDEA requiring parental involvement, schools can find it difficult to promote parent involvement in special education outside of their children's Individualized Education Program (IEP) meetings (Curtiss et al., 2015).

Most families want to be directly involved in their children's learning (Gerzel-Short, 2018). Parents know their children best and are in a unique position to provide many learning opportunities for their children (National Center on Parent, Family, and Community Engagement, 2018). However, some families may encounter challenges or barriers to engaging in home-based involvement and to creating a variety of learning opportunities that meet their children's educational needs. Schools must think out-of-the-box and find new ways to increase support and parent engagement for students with disabilities, specifically those in an Early Childhood Special Education program.

ARTIFACT I: REVIEW OF RELEVANT RESEARCH

Preschool-age children with delays and disabilities may require more practice or repetition of activities to learn and generalize new skills across a variety of settings and materials; therefore, family involvement in home-based learning activities is incredibly important. However, barriers can exist that prevent or reduce parent involvement. In this study, a thorough assessment and analysis of these barriers was necessary in order to fully understand how educators in the field of early childhood special education can support families of the students they serve. Reviewing literature that provides information on benefits and common barriers to parent involvement in education and possible solutions to overcoming those barriers are reviewed in this chapter.

First, the Individuals with Disabilities Education Act (2004/2022) was reviewed. This was followed by a review of literature that examined how terminology relevant to parent involvement has continued to change and evolve with research. Next, the effect of parental involvement on academic achievement and social emotional skills of students was examined. This was followed by a review of literature that focused on the barriers to involvement faced by parents and caregivers. In reviewing research on common barriers to parent involvement, we can more easily identify which barriers to involvement may be affecting families of children in Early Childhood Special Education programs. A review of literature on the Hoover-Dempsey and Sandler model of parent involvement and the Head Start Parent, Family, and Community Engagement (PFCE) framework, provides

insight on previous models and frameworks that have successfully increased parent engagement. Finally, a review of literature that provides suggestions on solutions to overcoming barriers to family involvement is explored in this chapter.

Individuals With Disabilities Education Act (IDEA)

The IDEA (2004/2022), Part B, is a federal law that ensures a free appropriate public education to eligible students ages three to twenty-one. IDEA ensures that those students identified with disabilities receive special education and related services. One of the essential components of IDEA is the improvement of educational outcomes for children with disabilities. IDEA states that the effectiveness of educating students with disabilities can be increased by "strengthening the role and responsibility of parents and ensuring that families of such children have meaningful opportunities to participate in the education of their children at school and at home" (Section 1400.c.5.B).

Evolving Terminology

Research in the area of parent involvement in their children's education continues to evolve as has the terminology. Researchers have used a variety of terms in addition to parent involvement (Chen & Zhu, 2017; Crosby et al., 2015; McQuiggan & Megra, 2017; Rispoli et al., 2018; Walker et al., 2005) including parent engagement (Baker et al., 2016; Brager et al., 2021; Breitenstein et al., 2017; Garbacz et al., 2017; Goodall & Montgomery, 2014; Schueler et al., 2017; National Center on Parent, Family, and Community Engagement, 2018) and recently family-school partnerships (Nitecki, 2015) in an effort to recognize that more than just parents can play a role in a student's education (Yamauchi et al., 2017). Goodall and Montgomery (2014) stated that involvement is something a person participates in, whereas engagement is a feeling of

ownership and encompasses more than just an activity. Regardless of what it is called, much research has been performed in an effort to determine why parents become involved and to determine what mediators increase parent involvement.

Parent Involvement and Academic Achievement

Research concerning parental involvement in home-based learning activities with children participating in Early Childhood Special Education classrooms is relatively sparse. Most studies concerning parental involvement and special education focused on school-age populations (e.g., Avnet, Makara, Larwin, & Erickson, 2019; Bariroh, 2018). Many studies that focused on parental involvement and an early childhood population revolved around kindergarten readiness, typically using early reading and math skills as a metric (Bariroh, 2018; Crosby et al., 2015; Grindal et al., 2016; Jarrett & Coba-Rodriguez, 2019; Loughlin-Presnal & Bierman, 2017; McCormick et al., 2020; Puccioni, 2018). A majority of these studies linked parental involvement to an increase in academic achievement; however, they differed in the additional demographic information examined in association with parental involvement such as parent education level, socioeconomic status, existence of a student disability, parent gender, and parent academic and school readiness beliefs (Anthony & Ogg, 2019; Avnet et al., 2019; Bariroh, 2018; Jeynes, 2005; Kim & Hill, 2015; Puccioni, 2018; Sibley & Dearing, 2014).

Parent involvement in home and school-based learning activities provides opportunities for parents to model and reinforce positive feelings toward education for their children. In addition, parents are critical partners in providing "cognitive stimulation through activities" in the home and community settings (Sibley & Dearing, 2014, p. 814).

Furthermore, the role of the parent has been found to be more important to child development than the of role schools or a community. Ma et al. (2016) indicated:

With increasing emphasis on early childhood education and early school success, there is a need to understand (and facilitate) the development of skills, abilities, knowledge, and behaviors that are specifically important to children as a result of early childhood education and early elementary education. (p. 777)

Student achievement is one of the most important outcomes of early childhood education. Several studies have made clear links between parent involvement in home-based activities and student achievement. Puccioni (2018) investigated whether there were associations between parents' academic and behavior-oriented school readiness beliefs, home environment, and school-based parental involvement, and children's academic achievement during their transition into kindergarten. Parent involvement is broadly defined as "direct contact with the school through parent-teacher meetings, participation in school events, serving on school governance boards, and visiting and volunteering in the classroom" (Jarrett & Coba-Rodriguez, 2019, p. 538). The results of Puccioni's study showed that parents that engaged in more home-based learning activities had children who had higher "average reading and mathematics achievement scores" at the beginning of kindergarten (p. 448). In addition, parents that "placed more importance on behavioral aspects of school readiness reported engaging in more home-based involvement practices" (p. 448), which in turn, led to their children having higher average achievement scores at the onset of kindergarten. This study provided further evidence that parents placed great significance on behavior-oriented skills (e.g., paying attention, finishing a task, following directions), and children whose parents targeted these skills in

home-based activities had greater academic achievement than children whose parents did not.

McCormick et al. (2020) examined how type of the home learning activity affected gains in language and in math during a prekindergarten year. McCormick et al. also examined whether associations between parent engagement in home learning activities and gains in their children's skills were different depending on the level of parental education. They found that parents with higher levels of education participated more often in unconstrained language activities, and parents with lower levels of education reported they frequently engaged in more unconstrained math activities. Additionally, McCormick et al. found there were "statistically significant associations between parents' engagement in unconstrained activities and gains in language and math skills" (p. 717), specifically, gains in receptive vocabulary. Children that had the greatest gains in these areas were children whose parents had lower levels of education.

This study demonstrated that parents regularly engaged in home-based learning activities with their children and that these activities had lasting benefits for their children. In addition, the type of activities parents participated in were important especially when home-based learning activities were extensions of what a child was working on in their classroom. Clear communication between a school and home were a necessary element to successfully extending schoolwork to home-based activities.

Good communication between school and home appears to be associated with student achievement. Lin et al. (2019) found parents felt there were higher instances of parent-educator communication when parents were more frequently engaged in home literacy and home numeracy activities with their children. This finding was consistent

with previous research performed by Epstein (2010) that focused on older children. Lin et al. (2019) stated that more frequent communication between parents and educators can help parents better understand their child's level of development and better support their child's learning. Lin et al. also felt, parents may be able to engage their children more frequently in developmentally appropriate activities by providing scaffolds when their children incur difficulties. Education skills developed by parents lead to an increase in student achievement (Lin et al., 2019). Clear parent-educator communication is vital to developing successful of home-based learning activities. Although parents are the experts on their children, educators are the experts at modifying and scaffolding learning activities to meet unique needs of individual learners, especially those that may struggle or have disabilities.

Early childhood educators have vast knowledge on child development and appropriate activities to target each child's unique education needs. Not all parents have this knowledge. Sonnenschein and Sun (2016) investigated how parents' knowledge of child development and implementation of home-based learning activities affected the reading and math skills of kindergartners and if there were differences in results affected by race or ethnicity. Sonnenschein and Sun also studied age and assessed parent knowledge of child development when children were 9 months old, parent involvement in home-based learning activities when children were in preschool, and children's math and reading skills when children were in kindergarten.

When all data were examined across time, a pattern emerged, meaning that "parents' knowledge of children's development predicted the frequency of children's literacy activities, which, in turn, predicted children's reading and math skills"

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(Sonnenschein & Sun, 2016, p. 15); even after controlling for covariates including: race, maternal age when the focal child was born, maternal level of education, number of a mother's biological children, whether a mother was born in the United States, English spoken in the home, home language not English, living in a rural area, household income, number of siblings, how far mother expected child to go in school, child gender, child assessment age, child receiving special education, child with a learning disability, child not in formal child care, child attending Head Start, child with multiple care arrangement, and child expressive vocabulary. As data in this study showed, parents empowered with knowledge of the trajectory of child development feel more comfortable conducting home learning activities with their children, specifically literacy activities (Sonnenschein & Sun, 2016). Parental knowledge of child development affects a parent's comfort level in conducting home-based learning activities and may have a lasting impact on a child's reading and math skills. Moreover, Sonnenschein and Sun's study demonstrated the importance of providing parents with young children with specific information on child development and activities they can perform at home to increase their child's academic potential.

Foundational literacy and math activities that target students when they are young can have a lasting impact on a student's academic development. Crosby et al. (2015) conducted a longitudinal 3-year study on the effects of a school-based parent involvement program in early literacy on the literacy development of kindergarten and first-grade students. Crosby et al.'s study demonstrated that parent involvement in home-based literacy activities with their children had a significant effect on their children's literacy development for both first grade and kindergarten-age students. As teachers worked to

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adjust and improve their program to meet the individual needs of students and families, they found more parents were participating in the program. There is no program that is one-size fits all when it comes to early education and literacy. Feedback from families helped teachers adjust their program to meet the needs of students and families in their school, which likely had an effect on the success of their program and student literacy outcomes. Crosby et al.'s study demonstrated the importance of stakeholder input in school-based or home-based education initiatives.

A link between parental involvement and student success in education is not only found in students without disabilities. Increases in parent involvement have also been associated with increases in achievement for students with disabilities. Bariroh (2018) studied the influence of parental involvement in education on learning achievement and motivation for students with special needs. In Bariroh's study, learning achievement was defined as "a measure of the success of student learning activities in mastering a number of subjects during the certain period, reflected through the grades in the report" (Bariroh, 2018, pp. 98-99). Bariroh's study indicated that parental involvement significantly influenced children's levels of motivation and learning achievements. Bariroh concluded that teachers and school staff should foster more collaborative relationships with parents of children with special needs to maximize student potential. However, there have also been studies that found the opposite outcome for children with disabilities.

Avnet et al. (2019) performed a study on how academic achievement in school is affected by parental involvement, parental level of education, and disability, specifically autism spectrum disorders (ASDs). Surprisingly, results indicated that children with higher academic achievement had lower levels of parental involvement, both with and

without disabilities. Avnet et al. warned their findings should be interpreted with caution due to a small sample size. In addition, they found parents were significantly more involved in their children's academics if the child was identified with a disability or on the autism spectrum (Avnet et al., 2019). This study provided evidence that parents of children (with and without disabilities) may take more of a passive role in being involved in their children's education if the children are successful in school.

Other authors reported data that does not support home-based learning activities as a form of parent involvement. Anthony and Ogg (2019) found that involving a parent in home-based education activities with their children was not significantly associated with reading achievement. The results of this study concerning home-based involvement of parents in education were contrary to previous research. Anthony and Ogg felt test items used to identify home-based behavior could have affected their results. Anthony and Ogg did, however, find school-based involvement and home-school communication did affect student reading achievement. Home-school communication has been defined as communication or contact between a home and school that can take place in a variety of formats including email, notes, phone calls, and face-to-face conversations.

As stated above, test items Anthony and Ogg identified as home-based involvement likely affected their results. Many of the activities parents used in Anthony and Ogg's study did not relate to literacy (playing a sport or exercising together were considered home-based involvement) and were more strongly associated with academics and school related behaviors.

Similarly, Sibley and Dearing (2014) noted that U.S.-born parents of color reported some of the highest rates of home-based parental educational involvement;

however, associations with child achievement and this form of involvement were mixed. Sibley and Dearing also found that, for some cultural groups, parent involvement in home-based educational activities was associated with some types of achievement. For example, parent involvement in home-based activities was associated with reading achievement for Latino immigrant students: however, it was negatively associated with achievement for American born White, Black, and Latino students. Mixed results of this study indicated that association of parent's involvement in home-based education and achievement can be affected by cultural differences.

Although there have been studies that do not link home-based learning activities to student achievement, far more studies directly link parent involvement through home-based learning activities to student academic achievement and social-emotional and behavioral skills. Parents play an important role in the education of their children; therefore, schools must find ways to help build capacity and engage families in being equal partners in the education of students.

Parent Involvement and Behavior

Parental involvement in education of their children has been linked to increased student academic achievement, increases in social-emotional skills, and decreases in behavior and conduct problems in a school setting (Hoover-Dempsey & Sandler, 1997; Hoover-Dempsey et al., 2005; Loughlin-Presnal & Bierman, 2017; Walker et al., 2005). Social-emotional skills are problem-solving skills where children can process social and emotional information and manage emotions while interacting with others in social situations (Roy & Giraldo-Garcia, 2018). Children who cannot manage their emotions

and interact appropriately in social situations may have difficulties within a school setting.

Loughlin-Presnal and Bierman (2017) added a social-emotional learning component to their Research-Based Developmentally Informed Parent (REDI-P) program that targeted social-emotional skills such as sharing, cooperation, emotional understanding, and self-control in their study on parent academic expectations. Loughlin-Presnal and Bierman's study targeted Head Start children that would be transitioning into kindergarten the following year. Results of Loughlin-Presnal and Bierman's study showed significant increases in parent academic expectations. Additionally, gains were found when teachers were asked to rate student self-directed behavior. This study provided additional evidence that parent involvement is related to positive student behavior changes, which are then related to academic achievement.

Dunst et al. (2019) identified similar findings for students in special education. Dunst et al. found that increasing parent involvement in home-based interventions, through capacity building, was linked to increases in child social competencies and cognitive development in infants, toddlers, and preschool students with disabilities and developmental delays. Family capacity-building practices are those "practices that include the participatory opportunities and experiences afforded to families to strengthen existing parenting knowledge and skills and promote the development of new parenting abilities that enhance parenting self-efficacy beliefs and practices" (Division for Early Childhood of the Council for Exceptional Children, 2020, p. 10). Although research clearly demonstrates the benefits of parent involvement in children's educational activities, families can encounter barriers that prevent or decrease involvement.

Barriers to Parental Involvement

Most families want to be directly involved in their child's learning (Gerzel-Short, 2018). In order to increase family involvement, schools and families need to work together to determine what barriers exist. Furthermore, this process should be individualized to meet the needs of specific families (Schueler et al., 2017). Common barriers addressed in the literature included: time, cultural and language differences, and bias or a mismatch in school and parent definitions of involvement (Baker et al., 2016; Hornby & Blackwell, 2018; Schneider & Arnot, 2018). Complexity of curriculum has also been addressed but not as frequently as the above-named barriers. There is a sparse amount of literature specific to disability of a child as a barrier and even less concerning the early childhood special education population. In this section, barriers to parental involvement will be discussed.

Time

Time is a barrier that has been identified in several studies (Baker et al., 2016; Gerzel-Short, 2018; Hilado et al., 2013). Families lead busy lives. Parents' work schedules do not always make it easy to be involved in school-based, home-based, and/or community-based learning activities. In addition, there are other familial responsibilities that can affect the amount of time a parent has available. In their study, Baker et al. (2016) found time barriers were expressed by families in two ways, the first being a conflict with parents' work schedules and the second being conflicts with other events. Many families are very busy and have competing obligations and responsibilities such as additional children, preparing meals, taking care of household duties, and shuttling children to outside community activities. Parents of children with disabilities may have

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the added responsibility of taking their child to various therapies. These obligations take up available time that could be used for home-based learning activities, and it would be unfair to make a parent choose one or the other.

Schneider and Arnot (2018) found that parent occupations could have an influence on parental involvement. Parents working jobs with long shifts or commutes had reduced time to spend in home-based learning activities. Parental marital status has also been perceived to have an affect on the amount of time available for parental involvement in child education; single parents must singlehandedly meet family needs addressed by two adults in married family homes. In single parent homes, a limited amount of time would be available for parent involvement in home-based learning activities as there is no division of parental workload and responsibilities (Erdener, 2016).

School and Staff Perceptions and Bias

How staff perceive parental involvement can affect relationships between schools and families as each may look at involvement from their own frame of reference. Ho and Cherng (2018) studied the difference in teacher perceptions of minority and immigrant parents' involvement in child education and the impact that it had on academic achievement. They found teachers were less likely to perceive minority immigrant parents as being involved in their child's education as they perceived U.S. born, White parents to be. Mainstream middle-class expectations can influence school perceptions of family involvement; thus, some forms of family involvement may be discounted by school staff (Carreón et al., 2005; Lareau & Horvat, 1999). In Ho and Cherng's study, parent perceptions of their own involvement did not always match teacher perceptions.

Miller and Lin (2019) found that even when parents did engage in home-based learning activities that matched teacher perceptions, some parents had difficulty articulating how home activities contributed to their child's learning, leading teachers to believe that an activity used by parents may not be appropriate. This can be especially true if there is a language barrier or if parents have lower levels of education. In Miller and Lin's study, parents documented their home-based learning efforts through photos. When Miller and Lin examined the photos, they found the majority of parents were providing appropriate play-based activities for their young children. Having a format for parents to demonstrate or show teachers what they were unable to articulate proved very helpful in clearing up misconceptions.

Teacher views of parent involvement in education typically revolve around school-based involvement activities such as volunteering and participating in activities within a school building. This school-based lens can affect how school staff see parent involvement. Parents' engagement in their child's learning should never be judged by a parent's involvement in a school (Goodall & Montgomery, 2014). At the time of this study, a majority of states used a Quality Rating and Improvement System to measure family engagement. However, the majority of items used in these rating systems have held a narrow view of family involvement that reflects activities and participation at a school or early childhood center such as volunteering, participating in parent teacher conferences, or helping with fundraising (Sabol et al., 2018). Minority and immigrant parents often report their involvement through a home based lens (Ho & Cherng, 2018). Activities such as cooking, passing down traditions, and moral lessons can be viewed by parents as home-based educational involvement (Ishimaru, 2019). In addition, parents

from non-dominant cultures have differing views of home-based learning involvement and may use a variety of traditional and non-traditional learning activities with their children (Miller & Lin, 2019).

Definitions of what constitutes parent involvement are not only sometimes different between school staff and families, but can also be defined or classified differently between different schools (Chen & Zhu, 2017). Hilado, Kallemeyn, and Phillips (2013) identified three themes in their study on the different understandings and definitions of parent involvement as interpreted by administrators of preschool programs. The first theme identified was that there was a wide range of *definitions* of parent involvement expressed by the preschool administrators as well as different *understandings* of parent involvement.

Administrators who had a very narrow definition of parent involvement, such as parents attending school events or parents helping in a classroom, reported low parental involvement levels. However, administrators with a broader definition of parent involvement, including parents' efforts to be involved and quality time spent with their children at home, reported higher levels of parent involvement. Administrators with a more flexible or inclusive understanding of parent involvement tended to see their students' families in a more positive light. They recognized a host of parental efforts in and outside of school as engagement. Administrators with a narrower definitions of parent involvement tended to have a more negative view of students' families and administrators viewed these families as less engaged (Hilado et al., 2013). The second theme Hilado et al. identified was that there were a variety of family contexts, or barriers, that influenced parents' ability to be involved, and the third theme Hilado et al. identified

was the correlation of administrator understanding of involvement to other factors. When school staff define parent involvement narrowly, it can cause staff to view parents in a negative way. Staff perceptions of parent involvement in students' educations may be negatively biased and lead to negative opinions of students' parents.

Teacher training programs and professional development is needed to help school staff recognize their personal biases (Hilado et al., 2013; Miller & Lin, 2019; Schneider & Arnot, 2018). Training can help staff to understand and recognize a variety of definitions of parent involvement. It can also provide information to staff on the different cultures of students they support, culturally appropriate ways to communicate with families, and help reframe staff opinions of families in a positive light. In addition, professional development will send a message to school staff that all families must be treated respectfully and valued as equal partners in their child's education (National Center on Parent, Family, and Community Engagement, 2018).

Power Dynamics

Power dynamics can be a barrier to parental involvement in education of their children. Many schools continue to treat families as clients instead of partners. Families, especially those with low incomes, frequently have little to no say in decision making and whole school initiatives. In the area of special education, the Individuals with Disabilities Education Act (2004/2022) required school districts to increase the effectiveness of special education services by "strengthening the role and responsibility of parents and ensuring that families of such children have meaningful opportunities to participate in the education of their children at school and at home" (Individuals With Disabilities Education Act, 2004/2022, Section 1400.c.5.B). This act was last modified November 7,

2019. Similarly, the U.S. Department of Health and Human Services and the U.S. Department of Education (2016) co-wrote a policy that stated, "The first step in . . . effective family engagement in early childhood systems and programs is to establish a culture in which families are seen as essential partners in the . . . programs that serve their children" (p. 8). In the early childhood arena, the National Association for the Education of Young Children (NAEYC) wrote a position statement on advancing equitable learning opportunities in early childhood education. Within the paper, the association recommended: (a) seeking out information about the culture, values, and language of families; and (b) honoring their individuality. The association also recommended "being open to multiple and varied forms of engagement" (National Association for the Education of Young Children, 2019, p. 8).

Schools strive to create equitable power dynamics, but there is still much work to be done. In her study, Ishimaru (2019) found schools still tended to engage families in activities aligned with teacher agendas and communication tended to flow one-way, from schools to home. To communicate equitably, Ishimaru pointed out that schools should have sought information from families as well, and not doing so kept parents in more of a passive role in their child's education. Parents need to be seen as equal partners. Communication should be provided as well as sought by teachers. Ishimaru's study demonstrated continued need for improvement in engaging parents as equal partners in education of their children.

To help schools and families equalize the power dynamic, Goodall and Montgomery (2014) created a continuum of parental involvement in parental engagement based on a review of relevant literature. Goodall and Montgomery identified three

significant points along this continuum: parental involvement with schools, parental involvement with schooling, and parental engagement with children's learning. In the first phase of the parent involvement model, the school holds most of the power and controls the flow of information. Schools often provide information to parents but do not necessarily seek information from them. Parents can participate in activities within a school setting; however, the school is the one that designs and initiates activities on their continuum. In the second phase, agency moves from being led or controlled by a school to the point where parents have the greater agency. Agency is defined as "the capacity of parents to act (in a beneficial manner) in relation to their children's learning" (Goodall & Montgomery, 2014, p. 401). At this point, schools may have provided information to parents, but parents chose to act or be involved in learning; the school does not dictate engagement.

Goodall and Montgomery (2014) pointed out that school agency overall does not decrease as there is movement along the continuum, any change in agency is only in the area of amount of parental engagement with a child's learning. An increase in parental engagement results in parents having more equitable agency; the school retains the agency for teaching, and the parents retain the agency for engagement in their child's learning. Both groups work together for the benefit of the child, thus moving to a true partnership. Schools need to work with families and provide the appropriate support and activities to foster a more equitable partnership.

Communication

Lin et al. (2019) found that increased parent-educator communication led to an increase in parents implementing home-based learning activities. However, in the home

district of the researcher, a majority of students in early childhood special education take a bus to school limiting the amount of interaction teachers have with parents and families and thereby limiting: (a) the time parents have to provide information on their children's ability levels to teachers, (b) discussion between teachers and parents on ways to target IEP goals, and (c) collaboration between parents and teachers on how to generalize skills to the home environment.

Lin et al. (2019) performed a study that looked at home-school communication and parental involvement in their children's education. In a sample of parents with low incomes, Lin et al. determined if there were relationships between (a) parent perceptions of parent educator communications regarding their children's learning and development and (b) home literacy environments and home numeracy environments. Lin et al.'s study demonstrated that parents who felt there were higher instances of parent-educator communication more frequently engaged in home literacy and home numeracy activities with their children. This finding was consistent with previous research that focused on older children. Lin et al. stated that more frequent communication between parents and educators can help parents better understand their children's levels of development and better support their children's learning. Furthermore, parents may be able to engage their children more frequently in developmentally appropriate activities by providing scaffolds when their children incur difficulties, which leads to an increase in student achievement.

In a similar study, Logan et al. (2019) provided evidence of the importance of school and home communication on parental involvement. Logan et al.'s study found parental adherence to a home-based reading intervention program was affected by contact with educators. Those parents that received a phone call appeared more likely to

complete the program than parents who's adherence was measured by postcard return rates.

Curriculum

Curriculum and teaching methods continue to change as new research in evidence-based practice is conducted. To this end, many teaching strategies employed at the time of this study did not look the way they did when parents attended school. Therefore, the complexity of a curriculum can be a barrier to parent involvement in home-based learning activities.

In a survey of the mismatch in teacher and migrant parents' views of engagement, Schneider and Arnot (2018) studied the requirements necessary for a transactional school-home-school (TSHS) communication system. Parents surveyed in Schneider and Arnot's study listed limited knowledge as a significant barrier to school engagement; however, the teachers in Schneider and Arnot's study did not appear to be aware of this lack of knowledge. Moreover, several school staff felt parental knowledge of school practices was good. Teachers often sent home-learning activities home with children without considering if the family understood the purpose of the task or how it was to be completed. Gerzel-Short (2018) found some parent participants in a survey she conducted did not understand some assignments or how to begin to help their children learn. Others expressed difficulties motivating their children to complete activities and lacked the skills to improve their work with their children. These family frustrations over learning activities affected how parents and children interacted with each other and decreased the likelihood they would engage in educational activities that may cause familial strife. When there was a mismatch between difficulty of a task and a parent's ability to teach

that task, positive gains of parental involvement can be attenuated (Doss et al., 2017). When asking families to engage in home-based learning activities with their children, school staff must consider parents' knowledge of subject matter and student abilities. Equipping parents with knowledge to assist in educating their children will increase the likelihood they will engage in future home-based learning activities.

Results are conflicting when parent level of education is examined. Garbacz et al. (2015) found the more education a parent had, the more likely they were to be engaged in home-based and/or school-based activities with their children. However, Schneider and Arnot (2018) found parental level of education was not associated with parent involvement in educational activities for immigrant families. Oswald et al. (2018) found parents with less education may have been less confident in their knowledge of material being covered in their children's classrooms, leading to less involvement of parents in educational activities. The conflict in findings for studies listed in this paragraph may be affected by a variability in definitions for parental involvement as well as different children, families, and school characteristics researchers used to examine parent involvement. For example, Garbacz et al. (2015) used a population from New Zealand for their study and cautioned their results may not generalize to populations in other countries.

Child With a Disability

Parents with children that have disabilities encounter the same barriers to involvement as parents who have typically developing children, but perhaps to a higher degree. Parents may have busy schedules taking their children to outside therapies and appointments in addition to their other parenting responsibilities. Also, parents may not

know how to adapt home-based learning activities to their children's ability levels or scaffold their child's learning (Curtiss et al., 2016; Rispoli et al., 2018). Logan et al. (2019) concluded that for young, low-income parents, their decisions to partake in activities that promote learning at home for children with disabilities depended on the parents' opinions on how well they felt that they were being supported by their children's Head Start program. Caregivers that have children with disabilities would benefit from suggestions on how to modify interventions to meet the needs of their children.

Logan et al.'s (2019) study also indicated that single mothers of children with disabilities were less likely to be involved as teacher support increased. Using a person-centered approach to examine family profiles, Logan et al. felt their results demonstrated this might be a sign parents felt their children were receiving adequate support at school, and that time at home could be spent on other family priorities. Amount of parent support from special education and general education teachers appears to have more of an effect on home-based involvement of parents in learning activities with single parent families.

Children with disabilities can be limited in the types of activities in which they are able participate. Limitations can be physical or cognitive disabilities that prevent access to an activity. Oswald, Zaidi, Cheatham, and Diggs Brody (2018) discovered parents who had children with disabilities were less likely to be involved in learning activities at home and in their community. Oswald et al. felt their data could have been affected by unintentional bias in tested items. For example, some survey items listed activities that may not have been accessible or appropriate to students with disabilities.

Rodriguez, Blatz, and Elbaum (2014) studied parent perceptions of schools' efforts to involve parents in their children's education. Rodriguez et al. interviewed 96

parents with students with disabilities. Rodriguez et al.'s study showed parents stated their children's schools were successful in requesting parent input in their children's education. In addition, parents felt their children's teachers were accessible and frequently communicated with parents through various modalities. As a result of these positive actions taken by schools, the parents in Rodriguez et al.'s study reportedly became more involved in their children's education. Rodriguez et al.'s study also demonstrated parents were likely to become involved if schools "resisted" their involvement or parents did not feel their children were provided quality instruction. Rodriguez et al.'s study provided support for the idea that parents' views of a school's efforts to engage them are directly related to parents' views of the quality of educational services their children receive. Schools need to make concerted efforts to communicate with parents and inform them of their children's progress.

Parents with children who have disabilities are willing to become involved in their children's education. For many, clear communication between parents and educators effects this involvement. School staff can increase the likelihood of parent involvement by sharing student's progress with families. School staff can also give suggestions or support on how to engage children with disabilities in learning activities at home as well as provide suggestions on how to adapt or modify learning activities in the home or community.

Language and Culture

Parents who do not speak English as their first language have an additional barrier to communication. The barrier can take place in both verbal and written communications between school and home. It is essential for educational programming for children with

disabilities that a school has accurate information from parents. Likewise, it is equally important that families have clear communications from their school in a language they can understand (Sawyer, 2015).

There can be a disconnect between home and school culture for immigrant families. Schools tend to use patterns of communication and forms of organization that are familiar to White, middle-class families that may be confusing to immigrant families (McWayne et al., 2013; Pstross et al., 2016; Ryan et al., 2010). It should be noted that not just immigrant families face these barriers; many American-born parents from non-dominant cultures, such as Latino and Asian cultures, also find discontinuity between their cultural beliefs and norms and what is expected in schools. These parents may be unsure of their roles, expectations within a school system, or school norms. In some cultures, the belief is that educating children is a teacher's responsibility (Hoover-Dempsey & Sandler, 1997).

Sibley and Dearing (2014) investigated the extent to which American-born and immigrant families engaged in family educational involvement (FEI) during their children's first and third grade in school and whether there were associations between FEI and student achievement for children of American-born compared to immigrant parents. Their study found evidence of several differences between U.S.-born and immigrant families "with regard to levels of FEI and associations between FEI and child achievement" (p. 814). Findings demonstrated parents who were U.S.-born who had White children had the highest rates of school-based parent involvement, whereas parents of color reported higher rates of home-based parent involvement. Positive associations between academic achievement and family educational involvement were seen for U.S.-

born White, Black, and Asian families as well as Latino immigrant families (Sibley & Dearing, 2014).

In another study, McWayne et al. (2013) examined whether there were specific cultural dimensions to family engagement in education in English and Spanish speaking Latino families. McWayne et al. found two general domains to family engagement in education. The first domain was children's school readiness skills including reading, writing, and mathematics. The second domain focused on children's life skills, which included skills such as cooking, cleaning, moral values, and real-world knowledge. McWayne et al. found that for 27 concepts that emerged from the data, most concepts were the same across all families; however, the importance of each concept varied across language groups. Motor skills development was of more importance for Spanish-speaking families, whereas English-speaking groups focused more on basic needs, discipline, and social-emotional skills. One contributing factor could be that migrant Latino families expressed the importance of education and the importance of hard work to help break the cycle of poverty.

Although barriers to parental involvement in their children's education have continued to exist, schools have been improving in identifying these barriers and taking steps to remove them. Hornby and Blackwell (2018) found four categories of barriers in their 2011 study: individual and family barriers; child factors; parent-teacher factors; and societal factors. Individual family barriers included areas such as parental beliefs about involvement, current life contexts, perceptions of invitations for involvement, and parental demographics (class, ethnicity, and gender). Child factors referred to a child's age, ability level, and behavior. Parent-teacher factors referred to differing agendas,

attitudes, and languages. Societal factors encompassed areas such as historical,

demographic, political, or economic issues that could present as barriers to involvement.

In a new study, Hornby and Blackwell (2018) found that categories of barriers

identified in their 2011 study were still relevant, but they were less interfering than they

had been in the previous study. In their interviews with head teachers at 11 primary

schools in the United Kingdom, Hornby and Blackwell found the majority of schools

took steps to help parents overcome parental involvement barriers. Hornby and Blackwell

concluded that although barriers still existed at the time of their study, schools had

become more competent in engaging families than they had been in the past. For

example, many schools were including policies for parent involvement in their

improvement plans, using a variety of media to inform parents on school information and

events, and providing parent education classes on a variety of school curriculum areas.

Baker et al. (2016) investigated differences in parent and teacher opinions on

barriers to family involvement in children's education, and provided some solutions to

those barriers identified by each group. Although parents and school staff agreed on what

the barriers were to parent involvement in education, the two groups offered differing

solutions. Parent solutions were typically connected to barriers whereas school staff

solutions were often disconnected and "did not directly address the barrier identified" (p.

161). Schueler et al. (2017) stated that if barriers and engagement are not assessed

simultaneously, "researchers may misunderstand critical aspects of family-school

engagement" (p. 277). To avoid this, Schueler et al. created a survey scale by

synthesizing prior theory on family engagement with information gathered through

interviews with parents who participated in focus groups. Surveys developed by Schueler

et al. can be used by future researchers to measure parent perceptions of their involvement in education as well as to help identify barriers parents believe they have faced to becoming more involved.

Summary of Barriers

Parental involvement can be affected by a variety of barriers (Baker et al., 2016). Time is a barrier that many families have dealt with (Baker et al., 2016; Gerzel-Short, 2018; Hilado et al., 2013). Parent work schedules and additional family obligations can limit the amount of time parents have available for educational involvement (Schneider & Arnot, 2018). Complexity of curriculum can be a barrier for English and non-native English speakers alike particularly when parents do not understand an assignment or when there is a mismatch between a task and parents' ability to teach the task (Doss et al., 2017; Gerzel-Short, 2018).

In addition, language and cultural differences create a barrier as well as a disconnect in patterns of communication between schools and homes. Parents who do not speak the same language as a teacher or understand cultural norms and expectations of an American school system can become confused as to their role in their child's education (McWayne et al., 2013; Pstross et al., 2016; Ryan et al., 2010). Parent confusion of roles can lead to teacher perceptions that incorrectly assume parents are willing to become involved in their child's education (McWayne et al., 2013). Furthermore, school staff tend to view involvement from a school-based lens, whereas parents may view their involvement from a home-based lens (McWayne et al., 2013; Sibley & Dearing, 2014). This can create or enhance power dynamic barriers. When teachers do not seek parent input, or parental engagement activities align with teacher agendas only and do not

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consider parent agendas, parents may feel more like a client instead of an equal partner in their child's education.

All of these barriers may be more difficult to surmount for families with a who have a child with disabilities. As stated above, parents' views of the quality of their children's educational services has often been directly related to parent views of a school's efforts to engage parents in education (Rodriguez et al., 2014). Because of the importance of parental involvement on student educational outcomes, schools need to identify barriers to involvement and work to develop solutions to overcome barriers.

Frameworks

Several conceptual and theoretical frameworks have been created in an effort to help schools increase both school-based and home-based family involvement. The theoretical frameworks most often cited in research literature included: "Bronfenbrenner's bioecological theory; social capital theory from the perspectives of Bourdieu, Coleman, and Lareau; Epstein's overlapping spheres of influence; and Moll and colleagues' funds of knowledge" (Yamauchi et al., 2017, p. 9).

In their meta-analysis of theoretical and conceptual frameworks used to research family and school partnerships, Yamauchi et al. (2017) found the two most often used conceptual frameworks have been "Epstein's types of family involvement, and Hoover-Dempsey and Sandler's model of the parent involvement process" (p. 9). For the purpose of this study, we will be using Hoover-Dempsey and Sandler's model of parent involvement concentrating on the first two levels.

Hoover-Dempsey and Sandler Model of Parent Involvement

The Hoover-Dempsey and Sandler (HD-S) model of parent involvement is a five-step model that explains why parents become involved in their child's education and how this involvement affects student outcomes (Yamauchi et al., 2017). The first two levels of the model outline the motivational factors that influence parents' decisions regarding involvement. The third through fifth levels explain how parents' involvement behaviors influence student outcomes (Walker et al., 2010). The HD-S model offers suggestions as to why parents get involved, what forms the involvement may take, and the effect parental involvement has on students. In their revision of the HD-S model's first two levels, Walker et al. (2005) discussed the primary purpose of the HD-S model is to explain the process and influences of parental involvement (Please see Figure 1).

Level 1

Level 1 of the HD-S model is based on the assumption that parents' decisions to get involved are influenced by several constructs from their own lives: past experiences, opportunities, and demands from their environment (Hoover-Dempsey & Sandler, 1997). The first level of this model contains three constructs: parents' motivational beliefs, parents' perceptions of invitations for involvement from others, and parents' perceived life contexts (Walker et al., 2005). According to the HD-S model, these life constructs can be predictor variables for parental involvement (Hoover-Dempsey & Sandler, 1997). The constructs include parental role construction.

Figure 1

HD-S's Original Theoretical Model of the Parental Involvement Process

<u>Level 5</u>

Student outcomes, including:	
Skills and knowledge	Self-efficacy for school success

<u>Level 4</u>

Tempering/mediating variables	
Parent's use of developmentally appropriate strategies	Fit between parent's involvement actions & school expectations

<u>Level 3</u>

Mechanisms of parental involvement's influence on child's school outcomes		
Modeling	Reinforcement	Instruction

<u>Level 2</u>

Parents' choice of involvement forms, influenced by:		
Parent's skills & knowledge	Other demands on parent's time and energy	Specific invitations from the child and school

<u>Level 1</u>

Parents' basic involvement decision, influenced by:			
Parent's role construction	Parent's sense of efficacy for helping the child	General school invitations for involvement	General child invitations for involvement

Note. From "Parental Involvement: Model Revision Through Scale Development," by J. M. T. Walker, A. S. Wilkins, J. R. Dallaire, H. M. Sandler, and K. V. Hoover-Dempsey, 2005, *The Elementary School Journal, 106*(2), p. 86 (https://www.jstor.org/stable/10.1086/499193). Copyright 2005 by the University of Chicago Press.

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Parental Role Construction. Parents' motivational beliefs can be defined as parent beliefs about what they should do concerning their children's education. Motivational beliefs are affected by parental role construction and parental self-efficacy. Parental role construction can be influenced by a parents' belief in a personal or shared responsibility for their children's education. Parental role construction is defined as a parent's beliefs in their ability to act in a way that will produce a desired outcome (Walker et al., 2005). It is a socially created construct and as such is subject to change over time in response to various social conditions (Hoover☐Dempsey et al., 2005). Parental role construction can be influenced by the groups parents belong to such as a family, community, or school group. In addition, gender and culture can also affect parental role construction (Hoover-Dempsey & Sandler, 1997).

Parental Sense of Self-Efficacy. The second construct that can influence parents' motivational beliefs is parental self-efficacy. This is defined as a parent's beliefs in their ability to act in a way that will produce a desired outcome, in this case, student achievement (Walker et al., 2005). Parents with high self- efficacy are more likely to make positive decisions about actively engaging in their children's education and are more likely to persist when faced with barriers or challenges to successful outcomes. Parents with low self-efficacy often have lower expectations about their abilities to positively impact their children's educational outcomes and are less likely to persist when faced with challenges (Hoover-Dempsey & Sandler, 1997; Hoover☐Dempsey et al., 2005).

Parents' Perceptions of General Invitations for Involvement From Others. As stated above, parents' perceptions of invitations for involvement from others is

another motivator affecting parental decisions for involvement. These take three forms: general invitations from a school, specific invitations from their child(ren), and specific invitations from their child(ren)'s teacher. General school invitations for involvement can be thought of as school climate. Schools that are perceived by parents as welcoming and empowering have higher rates of parental involvement. Empowering a person is "to improve a person's (or family's) ability to make decisions independently" (Howard et al., 2013, p. 398). Teacher invitations can take the form of communications with parents on their children's achievements, invitations to participate in specific activities within a school or at home, invitations to participate in parent workshops and training, and homework involvement. Teacher invitations may have a positive effect on parental involvement partly because teachers relay to a parent that a teacher values their contribution in regard to their children's success in school (Green et al., 2007). Specific invitations from students can be implicit or explicit (Walker et al., 2005). An example of an implicit request is where a parent sees a child struggling with their homework and provides assistance. The child doesn't specifically request assistance; however, the parent is responding to their child's need. Examples of an explicit request would be a child asking their parent for assistance with schoolwork or asking their parent to participate in a school function (Hoover-Dempsey & Sandler, 1997; Hoover☐Dempsey et al., 2005). Specific invitations from a child for their parents' involvement have the strongest association with parental involvement. Parent perceived life contexts may prevent a parent from responding to a specific invitation from teachers or students.

Perceived Life Context. Parents perceptions of the context they live in has an effect on their decisions to become involved in their children's education. A person's life

context is made up of that person's self-perceived available time and energy and self-perceived skills and knowledge they have to become involved in something. Parent self-perceived skills and knowledge can have a significant effect on parental decisions to become involved in certain activities. For example, a parent may feel they have more skills and knowledge in one school subject area than another, and this may affect the parent's decision to help their child(ren) with homework in this subject area (Green et al., 2007). When confronted with the demands of helping their children with schoolwork, parents' may reflect on their self-perceived skills and the likelihood of achieving success should they decide to become involved (Hoover-Dempsey et al., 2005). This could be one of the reasons parental involvement in child education may decrease as students enter middle and high school. Parent life-context variables can influence parent role construction and self-efficacy. Life-context variables can also be intertwined with family and student culture. Family-life contexts can also become barriers to involvement at other levels of this model if skill, time, energy, and knowledge are lacking (Hoover□Dempsey et al., 2005).

Level 2

The second level of the HD-S parent involvement model has been revised by Walker et al. (2005). Walker et al. collapsed the predictor variables from Level 1 and Level 2 which allowed them to "directly link psychological factors to the dependent measure at level 2 [*sic*] of the original model, parent's choice of involvement forms" (p. 89). The dependent measure is divided into parents' home and school-based behaviors (Walker et al., 2005). These behaviors can take on many forms and are affected by parents' life-contexts and by family culture. Home-based involvement is generally seen

as learning activities that take place between a parent and a child outside a school environment. Home-based involvement is generally related to a child's learning at school. These activities may include helping a child with homework, or helping a child study for a test, reading with a child in the evening, or discussing a child's school day with the child. School-based involvement tends to consist of activities that occur on school grounds. These activities can include parents watching their children perform in a school program, volunteering, attending parent-teacher conferences, or chaperoning a school field trip (Green et al., 2007).

Levels 3 Through 5

Level 3 of the HD-S parent involvement model consists of mechanisms of the influence of parental involvement on their children's school outcomes. Level 3 is made up of three constructs: modeling, reinforcement, and instruction of children by parents. The three constructs take place as a parent is involved in academic enrichment activities with their child in either a home or school setting.

Level 4 of the HD-S parent involvement model focuses on tempering/mediating variables composed of parents' use of developmentally appropriate strategies and how well a fit there is between parent's involvement actions and school expectations. Level 5 addresses student outcomes to include student skills, student knowledge, and student mastering of self-efficacy for school success (Hoover-Dempsey & Sandler, 1997; Hoover☐Dempsey et al., 2005). The HD-S parent involvement model is set up so that each level is affected by the level below it. The model is layered and builds from a parent deciding to become involved in their child's education and ends with a student's academic achievement or student outcomes. Although the model consists of only five

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levels, the majority of research on the model to date has focused on the first two levels of the model. The complete model has yet to be tested (Yamauchi et al., 2017) although levels of the HD-S model have been used in several studies.

Review of Studies Based on the Hoover-Dempsey and Sandler Model

Jarrett and Coba-Rodriguez (2019) studied beliefs of low-income, African American mothers involved in educating their children with Head Start preschool children transitioning to kindergarten. Qualitative interviews were conducted with 20 mothers. Jarrett and Coba-Rodriguez used the Hoover-Dempsey and Sandler (HD-S) model of parental involvement as well as resilience theory to inform their approach. Findings of their study were consistent with Hoover-Dempsey and Sandler's in that mothers believed in their abilities to make a positive impact on their children's transition to kindergarten. Additionally, the mothers believed they were knowledgeable about academic and social-emotional skills expected in kindergarten. The mothers then used this information to guide home-activities they used with their children.

Jarrett and Coba-Rodriguez (2019) felt the mothers who participated in their study likely learned of their children's school readiness skills through classroom observations and through interactions with their children's teacher. Jarrett and Coba-Rodriguez further stated that the mothers' decisions to engage in home-based learning activities were likely influenced by invitations from their children, and that classroom observations of the skills their children struggled with helped inform mothers on their construction of remediation activities. Jarrett and Coba-Rodriguez also felt that witnessing a child's mastery of skills helped motivate mothers to continue engaging in home-based learning activities.

Jarrett and Coba-Rodriguez's (2019) study supported the HD-S model Levels 1 and 2. Parents' motivational beliefs, role construction, and parental self-efficacy were demonstrated in their beliefs that they were making a positive difference in their child's education. In addition, parents' perceptions of invitations from their children also affected their involvement in home-based involvement behaviors on Level 2. Although this study focused on preschool-age students, other studies have been completed with older age groups as well.

Green et al. (2007) examined the ability of the Hoover-Dempsey and Sandler model to predict types and levels of involvement for parents with elementary and middle school students. Green et al. surveyed socioeconomically and ethnically diverse parents of first- through sixth-grade children residing in a metropolitan area of the mid-southern United States. Results of their study showed that home-based involvement was predicted by "perceptions of child invitations, self-efficacy beliefs, and self-perceived time and energy for involvement" (p. 540). Home-based parental involvement in early childhood academics is typically defined as early literacy and numeracy practices such as book reading, storytelling, counting activities, and naming of shapes (Puccioni, 2018). Home-based parental involvement can also incorporate reading or other academic or intellectually stimulating activates such as visiting museums, the zoo, or attending educational events (Anthony & Ogg, 2019). These same constructs (child invitations, self-efficacy beliefs, and parents' perceptions of available time and energy) and parent perceptions of specific teacher invitations to participate in school, were also predictive of school-based involvement of parents. Anthony and Ogg noted contributions of these psychological constructs were robust even when controlling for family status variables,

thus demonstrating that the model was able to be applied to parents from a variety of socioeconomic backgrounds.

Additionally, Green et al. (2007) found parental involvement differed between elementary and middle school students. Home-based involvement for parents of elementary students was predictable by perceptions parents had of being invited by their children to be involved, parent self-efficacy and role activity beliefs, and perceived time and energy parents had available. With the exception of role activity beliefs, the same constructs were predictive of home-based involvement for middle school students as well. For both middle and elementary parents, school-based involvement was most strongly predicted by specific invitations from teachers and children. Perceived time and energy and role activity beliefs also predicted school-based involvement for middle school parents, however, associations were not as strong.

Green et al. (2007) concluded that the HD-S parent involvement model was able to be generalized across elementary and middle school students. They suggested further research should be done to determine its "predictive power across cultural groups, school types, and developmental levels" (p. 541). Additional researchers have investigated different variables of the HD-S model.

Anderson and Minke (2007) examined the relationship of four variables from the Hoover-Dempsey and Sandler model on the parental involvement process including activities at both home and school. Variables investigated were role constructions, sense of self efficacy, specific invitations, and resources. Anderson and Minke used resources as a proxy for the "time and energy demands" variable that appears in the revised HD-S model. To investigate the effects of these variables, Anderson and Minke surveyed

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parents of elementary students in a larger urban school district in the Southwest United States. Surveys were provided to families in the language that the schools typically used to communicate with those families. Anderson and Minke divided parental involvement into home-based activities, parental involvement in school-based activities ongoing, and parental involvement in school-based events.

The results of Anderson and Minke's (2007) study demonstrated that parents reported much more home-based involvement than school-based involvement. Anderson and Minke pointed out that this finding is important because schools typically identify involvement visible only on their campuses and may therefore be underestimating the amount of time parents have been involved in their children's education. Another finding was that parent perception of self-efficacy was only directly related to home involvement. Anderson and Minke felt that efficacy may be a more complex construct than what is represented in the HD-S model and has been assessed to date, and this could account for their results. Anderson and Minke additionally found that specific teacher invitations were strongly associated with all three types of parent involvement measured in their study. This finding was consistent with the findings of Walker et al. (2005). Finally, Anderson and Minke found parents' resources did not influence involvement. Anderson and Minke hypothesized that although parents may have been experiencing barriers due to constraints based on resources, specific invitations from teachers may have encouraged them to find ways to become involved despite limited resources. This study lent support to the efficacy of the HD-S model in measuring factors affecting parents' decisions on being involved in their child's education.

The HD-S model has also been investigated in other cultures. Lavenda (2011) studied whether the first level of the Hoover-Dempsey and Sandler model of parental involvement was able to be applied to two cultures, Jewish and Arab cultures in Israeli middle and high schools. In addition, Lavenda wanted to "expand the model by adding inter-relationships between its variables, and a mediating effect of parental role constructions" (p. 932) and to examine whether ethnicity plays a greater role in predicting parental involvement than socioeconomic status. Lavenda surveyed parents of Jewish and Arab junior and senior high school students living in Israel. The schools were varied as far as their cultural, ethnic, and religious affiliations. Results of the study revealed Israeli parents were as involved in their child's education as American parents, thus supporting findings of the original model and demonstrating that the model addresses important relationships between variables that affect the inter-relationship between parents and school settings. In addition, Lavenda found results were similar for both Jewish and Arab families in regard to parental involvement. Finally, the study demonstrated culture/ethnicity was not more predictive of parental involvement than socioeconomic status, at least for Israeli and Arab parents. This led Lavenda to conclude that regardless of culture/ethnicity or socioeconomic status, there are certain variables that affect parental involvement.

Similarly, Reininger and López (2017) used Hoover-Dempsey and Sandler's theoretical framework to investigate parental involvement in Chile. Reininger and López specifically wanted to examine the effects of parents' motivational beliefs, parents' perceived invitations for involvement from others, and parents' life contexts on home-based and school based parental involvement. Data were collected using a Spanish survey

which contained socio-demographic questions to compliment the Spanish version of the Hoover-Dempsey scales of parental involvement and motivators for parental involvement.

The results of Reininger and López's (2017) study indicated child invitations for parent involvement, parental sense of self-efficacy, income, and child's grade level were all positively associated with parental home and school-based involvement. Time and energy were only significantly associated with parental involvement at school. Unlike studies performed by Green et al. (2007) and Walker et al. (2010), Reininger and López did not find role construction or perceived invitations for involvement as significant in parental home-based or school-based involvement. The authors felt that Chilean cultural norms as well as historical educational policy may have caused the difference in findings.

In addition to culture, the effects of social demographics on the HD-S model have also been investigated. Park and Holloway (2013) investigated whether elements of the Hoover-Dempsey and Sandler model could predict parent involvement for socio-demographically diverse parents with students in high school. To conduct their research, Park and Holloway used data from the education survey of the 2007 National Household Education Surveys Program (NHES). Results of Park and Holloway's study showed that for school-based involvement, as predicted by the HD-S model, parents were more likely to be involved if they found schools to be welcoming and schools were informative in their communications with families.

Parental communication was also found to be strongly associated with school-based involvement. For home-based involvement, the role of communication between home and school, although less powerful than school-based involvement, played a

significant role. Parental role and self-efficacy were also found to be significant

predictors of home-based involvement. Park and Holloway (2013) concluded that on the

whole, their findings were consistent with predictions of the HD-S model and the model

could be used to support implementing school outreach and communication efforts to

support families from non-dominant races in increasing school-based involvement.

Furthermore, Park and Holloway stated their results demonstrated the importance of

enhancing parental feelings of self-efficacy to increase home-based involvement.

Feelings of self-efficacy affects parents with typically developing children and may have

an even greater effect on parental involvement if their child has a disability.

Fishman and Nickerson (2015) investigated whether various choices or degrees of

involvement of parents with elementary students receiving special education could be

predicted by motivational variables as written in Hoover-Dempsey and Sandler's

(Hoover-Dempsey et al., 2005) model of parent involvement. To do this, Fishman and

Nickerson controlled their study for potential demographic variables and used the *Parent*

Involvement Survey as written by Walker et al. (2005). Fishman and Nickerson's research

revealed that parents reported being less involved in home-based activities when they

perceived their school was more "welcoming, communicative, and informative" (p. 532).

Fishman and Nickerson stated that this result is "counter intuitive" (p. 532); however, it

may reveal that parents who feel a school is not reaching out or being informative may be

more apt to supplement their children's education with home-based involvement.

Another finding in Fishman and Nickerson's study showed parents of students with

disabilities were more likely to engage in home-based involvement when their child

specifically requested their involvement such as students asking for help on homework or

talking to their parents about school. Additionally, Fishman and Nickerson found that parents' beliefs about their level of responsibility for supporting their children's education was only related to school-based involvement. Similar to research in the Hoover-Dempsey and Sandler model (Hoover-Dempsey & Sandler, 1997; Hoover-Dempsey et al., 2005), parents in Fishman and Nickerson's study reported higher levels of school-based involvement when they had both the time and energy for those activities. Fishman and Nickerson suggested teachers and school staff should convey specific expectations on parental roles, communications, and participation when staff have requested specific types of parent involvement. Overall, results of their study did align with Levels 1 and 2 of the HD-S model, specifically, motivations behind parent perceptions of invitations to be involved and its effects on home-based and school-based involvement behaviors of parents.

Elementary students with disabilities has not been the only population with disabilities to be studied. Hirano et al. (2018) adapted scales based on the Hoover-Dempsey and Sandler model of parent involvement to use with parents of children aged 14 to 23 with disabilities. Hirano et al. sought to assess psychometric properties of their Motivators of Parent Involvement (MPI) scales. Hirano et al. recruited participants from Parent Training and Information (PTI) Centers and ARC chapters throughout the United States. These facilities served students with intellectual disabilities and their families. Parents were provided the MPI survey online available through Qualtrics survey software. Results of their analysis demonstrated that the HD-S model was a good fit for predicting three types of parent involvement and eight motivational factors for transition age students. Hirano et al. stated that their study extended the small amount of available

research on the use of the HD-S model for parent involvement for parents of adolescent students.

Head Start's Parent, Family, and Community Engagement Framework

As stated previously, little research exists demonstrating the effectiveness of the entire HD-S model, especially with preschool-aged populations. Although the HD-S model is not used exclusively within the Head Start framework, Head Start's Parent, Family, and Community Engagement (PFCE) framework does include elements of the HD-S model. The PFCE framework is a research-based guide for Head Start and Early Head Start implementation of Head Start Program Performance Standards (HSPPS) for "parent, family, and community engagement" (National Center on Parent, Family, and Community Engagement, 2018, p. 1). This framework implements a range of research that was conducted in Head Start, Early Head Start, and other early childhood programs in addition to K-12 schools. The PFCE framework defines family engagement as:
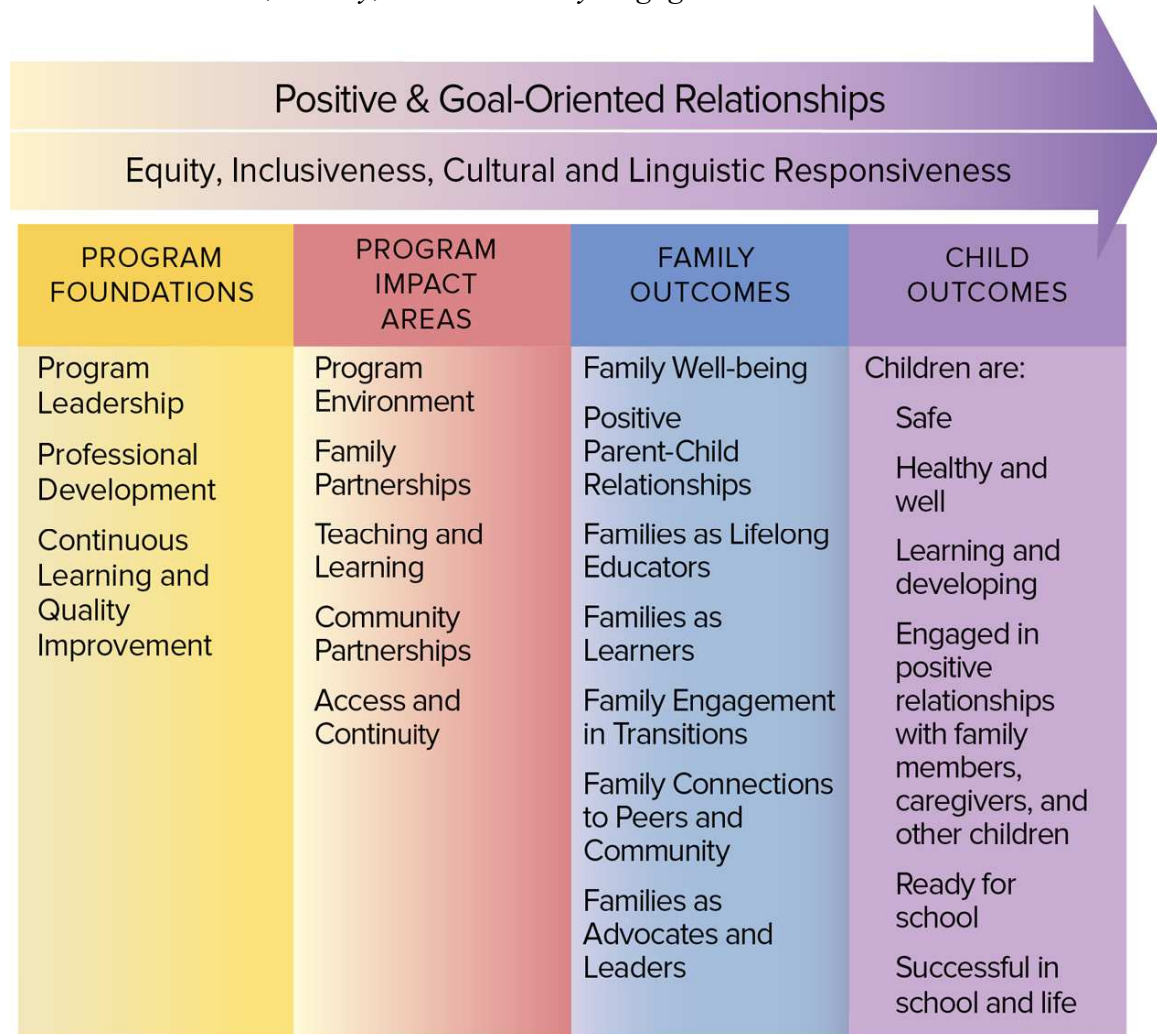
An interactive process through which program staff and families, family members, and their children build positive and goal-oriented relationships. It is a shared responsibility of families and professionals that requires mutual respect for the roles and strengths each has to offer. Family engagement means doing with— not doing to or for—families (National Center on Parent, Family, and Community Engagement, 2018, p. 2).

As part of the Head Start program, an intake and family assessment must be completed to determine family strengths and needs in regard to family engagement outcomes described within the PFCE framework. Outcomes within the framework are divided into elements of family well-being, parent-child relationships, families as lifelong

educators, families as learners, family engagement in transitions, family connections to peers and the local community, and families as advocates and leaders (Figure 2).

Figure 2

Head Start's Parent, Family, and Community Engagement Framework

Positive & Goal-Oriented Relationships			
Equity, Inclusiveness, Cultural and Linguistic Responsiveness			
PROGRAM FOUNDATIONS	PROGRAM IMPACT AREAS	FAMILY OUTCOMES	CHILD OUTCOMES
Program Leadership Professional Development Continuous Learning and Quality Improvement	Program Environment Family Partnerships Teaching and Learning Community Partnerships Access and Continuity	Family Well-being Positive Parent-Child Relationships Families as Lifelong Educators Families as Learners Family Engagement in Transitions Family Connections to Peers and Community Families as Advocates and Leaders	Children are: Safe Healthy and well Learning and developing Engaged in positive relationships with family members, caregivers, and other children Ready for school Successful in school and life

Note. From *Head Start Parent, Family, and Community Engagement Framework* (2nd ed.), by the National Center on Parent, Family, and Community Engagement, 2018, p. 4 (https://marylandfamiliesengage.org/wp-content/uploads/2018/10/pfce-framework.pdf). Copyright 2018 by the U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start, and Office of Child Care.

Children are at the center of meaningful family engagement. Parents and staff develop partnerships and work collaboratively with a child's well-being as the focus. As part of these partnerships, school staff seek and accept parents' expertise on their child's strengths and needs. Staff also encourage parents to share knowledge of their home culture and values they want to pass on to their children.

Interactions between parents, families, school staff and families take on many forms. The target of these interactions should be part of a coordinated plan with the intention of achieving good family and child outcomes. The PFCE framework focuses on establishing trusting relationships and accountability in order to improve partnerships between families and schools and promote progress for children from within the program. The strategies implemented in the PFCE framework are systematic, integrated, and comprehensive.

Effects of Positive, Goal-Oriented Relationships With Family

The PFCE framework prioritizes the development of positive, goal-oriented relationships with families. These relationships reduce feelings of isolation and stress for both families and teaching staff. Focusing on shared goals for children fosters a sense of families and staff being on the same team. Furthermore, this collaborative relationship supports the additional goals of "equity, inclusiveness and cultural and linguistic responsiveness" within the Head Start program (National Center on Parent, Family, and Community Engagement, 2018, p. 2). Said another way, by respecting families and encouraging them to be active participants in their children's learning and educational settings, families can help educators and school staff develop ways to create school environments that are safe, welcoming, and trusting for their unique culture and children.

PFCE Child and Family Outcomes

The PFCE framework outlines both child and family outcomes that are designed to help students achieve. Six child outcomes targeted through the PFCE framework were developed to help children within their program achieve the following: be "safe"; be "healthy and well"; be "learning and developing"; be "engaged in positive relationships with family members, caregivers, and other children"; be "ready for school"; and be "successful in school and life" (National Center on Parent, Family, and Community Engagement, 2018, p. 4). To compliment the child outcomes, the PFCE framework also identified seven research-based family outcomes that have been shown to have a positive effect on child outcomes. These family outcomes include: "family well-being," "positive parent-child relationships," "families as life-long educators," "families as learners," "family engagement in transitions" through grade-levels, "family connections to peers and community," and "families as advocates and leaders" (National Center on Parent, Family, and Community Engagement, 2018, p. 4).

Three of the parent and family outcomes identified in the PFCE framework align with Level 2 of the Hoover-Dempsey and Sandler (HD-S) model for parent involvement in their children's education. These three outcomes are related to "parent's skills and knowledge" in the HD-S model and include positive parent-child relationships, families as lifelong educators, and families as learners. Also identified in Level 2 of the HD-S model were parental-self efficacy and parental perceived life context. Parents that have access to information about their child's learning through partnerships with school staff have higher feelings of self-efficacy and confidence in their knowledge and skills to work with their children (Green et al., 2007; Hoover-Dempsey et al., 2005).

Program Impact Areas

"Program impact areas are selected service activities that have the greatest influence on family outcomes" (National Center on Parent, Family, and Community Engagement, 2018, p. 13). Impact areas include "program environment," "family partnerships," "teaching and learning," "community partnerships," and "access and continuity" (National Center on Parent, Family, and Community Engagement, 2018, p. 4). This section continues to highlight the importance of collaboration between families and educators within each impact area. The PFCE framework stresses that to work collaboratively, the program environment must make families feel valued and respected in addition to promoting learning and development for children. Building strong respectful relationships with families allows staff and parents to engage in open communication about children's strengths, struggles, and educational goals. Staff also work with families to identify family goals. Teaching and learning in this area are not only seen as activities that occur in school but should also be targeted by families within home and community environments. Teachers and parents work together to "promote children's learning, development, and school readiness" (National Center on Parent, Family, and Community Engagement, 2018, p. 13). Parents are seen as full partners in their children's education and are encouraged to share their knowledge about their child. To target family goals, collaborative relationships with community partners are also developed. Again, although the PFCE is its own framework, there are many areas that align with the HD-S model.

Common Approaches to Addressing the Problem

The U.S. Department of Health and Human Services and the U.S. Department of Education (2016) wrote a policy statement, which, amongst other information, listed principles of effective family engagement for early childhood education. In each of their principles, they highlighted the need for schools to work collaboratively with families to support learning not only at school but also in the home environment. Schools and families need to work jointly to identify specific strategies and share learning activities that support a child's learning and development in their home, school, and community. Teachers can model teaching strategies for families that ask for support.

In addition, schools can offer information and training sessions to families on topics that promote child development, academics, and behavior. Training sessions should be in areas that are of interest to the families that schools serve. Providing evidence-based strategies that build on families' strengths, interests, and needs, schools can help build a family's capacity to support their children's development while giving families the confidence to advocate for their children. The Division for Early Childhood (DEC) of the Council for Exceptional Children (CEC) has listed coaching and consultation strategies for family members on positive adult-child interactions and intentionally designed instruction as one of their recommended practices. Additionally, the DEC has stated that teachers and service providers should work to promote family competence in ways that build on families' strengths, families' capacities to implement interventions with their child, and recommended family practices (Division for Early Childhood of the Council for Exceptional Children, 2020).

As Grindal et al (2016) stated, "Many early childhood education (ECE) programs seek to enhance parents' capacities to support their children's development" (p. 238). Providing parents a way to overcome barriers to involvement can help schools by increasing parents' self-efficacy beliefs and their capacities to engage in home-based learning. Parent-efficacy beliefs and capacity building practices have been shown to be related to child behavior and development (Dunst et al., 2019). Not all parents are knowledgeable about developmental norms for children or on what activities they (parents) can use to help support their children's learning. Schools need help building parental capacity so parents feel empowered to engage in their children's education in a home environment (Kurtulmus, 2016). By providing parents with supports, educators can positively impact student social-emotional and academic achievement. In one study, Pstross et al. (2016) found that helping parents empower themselves by increasing their knowledge can have significant effect on the future of their children.

Home-based parent involvement in their children's learning is essential for families who cannot partake in school-based activities because of barriers (Lin et al., 2019). In her study on integrated school and family partnerships in early childhood, Nitecki (2015) found parents appeared more excited and felt more empowered when they were given information about general child development, their own children's learning style, and ways to incorporate learning at home. As a result, Nitecki saw an increase in parents supporting their children's learning at home as well as wanting to help within school settings.

Lin et al. (2019) also found that increased parent-educator communication led to an increase in parents implementing home-based learning activities. However, in the

Grand Forks Public School District, Grand Forks, North Dakota, a majority of students in early childhood special education have been taking a bus to school limiting the amount of interaction teachers have had with parents and families to provide information on their children's ability levels, ways to target IEP goals, and generalize skills to a home environment. Many teachers have communicated with parents via email, a texting app, or phone; however, the coaching and modeling element in teacher-parent interactions is not as fluid in these models.

With parent involvement being so important, schools must explore innovative ways to provide families support with home-based learning, thereby overcoming barriers that have been collaboratively identified. School staff need to identify ways to work with families. "Family engagement means doing with—not doing to or for—families" (National Center on Parent, Family, and Community Engagement, 2018, p. 2).

Text Message Format

Text messaging is one method that has been used to increase parent involvement in home-based learning activities with positive results on student achievement (Cabell et al., 2019; Doss et al., 2017, 2018). Doss, Fahle, Loeb, and York (2017) studied the effects of providing parents with a differentiated and personalized text messaging program on their children's reading abilities using participants from a previous study. Families either received text messages unrelated to literacy, general literacy texts, or texts personalized and differentiated to their children's developmental or skill level. Results showed children whose families received differentiated and personalized texts had higher reading abilities than children whose families received general literacy text messages. In addition to reading level, Doss et al. (2017) investigated parent perceptions of the ease of building

their children's reading skills and frequencies of engaging in home-based literacy activities with their children. Parents in the differentiated text group also reported engaging in more home-based literacy activities than parents in the control group. The more personalized the information provided to parents was, the higher the likelihood parents engaged with their children in the home-based learning activities provided.

Digital Formats

Another way schools can communicate with parents is through online or digital formats (Curtiss et al., 2016). At the time of this study, most people had some form of technology in their homes. As of 2019, 81% of Americans owned a smart-phone (Anderson, 2019), 52% owned a tablet, and 74% owned a computer (Pew Research Center, 2019). Several researchers have explored the use of technology to help families overcome many barriers to face-to-face communication between teachers and parents including: time, transportation, and complexity of a curriculum (Brager et al., 2021; Breitenstein et al., 2017; Cabell et al., 2019; Doss et al., 2017, 2018; DuPaul et al., 2018; Logan et al., 2019; Meadan et al., 2016).

There are several benefits to use of online and digital formats for parent training on home-based learning activities. Convenience for families is one significant benefit. Parents do not need to look for childcare and would be able to view information at any time during the day (Brager et al., 2021). Digital formats allow families to break communication sessions into smaller portions (Breitenstein et al., 2017). Viewing information from their own home allows families to rewind and rewatch portions if they miss something instead of having to ask a question in front of a crowd, which may make some people uncomfortable.

A digital format would also allow parents to watch a training and then immediately practice the skill instead of having to remember what they heard or saw during face-to-face training. Digital formats also allow families and schools to differentiate modules or information to the needs of individual families. For example, if a parent does not have a child with fine-motor needs, they would not need to view the modules on prompting correct pencil grip.

Flexibility is important in parent training. Online training is not for everyone; however, it is beneficial to give parents their preference on an option. Several studies have shown that parents complete online training in greater (or at least equal) numbers than parents who take face-to-face training (Brager et al., 2021; Breitenstein et al., 2017; DuPaul et al., 2018). Flexibility in programming can have a positive effect in parent engagement and adherence to home-based education activities (DuPaul et al., 2018; Logan et al., 2019).

Flexibility in programming has also been found to have positive effects on parent engagement and adherence to home-based education activities (DuPaul et al., 2018; Logan et al., 2019). Hayakawa and Reynolds (2016) created a school reform program for early childhood. Their CPC P-3 program provided a menu system of parent engagement activities that offered events and workshops falling into a variety of categories. This allowed parents flexibility to individualize their program and only access information relevant to their child(ren)'s and family's interests. Individualization has been shown to increase parent engagement in home-based activities. Crosby et al. (2015) found as teachers worked to adjust and improve their literacy program to meet individual needs of students and families, more parents participated in the program; leading authors to

conclude that teacher individualization and modification of a parent education program led to greater parent involvement, which led to greater student achievement.

Digital formats can also be used to increase parent capacity. Parents that participated in both program formats in DuPaul et al.'s (2018) study reported a reduction in their children's defiance, aggression, and ADHD symptoms. Similarly, Feil et al. (2020) found the effects of ePALS, was successful in strengthening parent behaviors that promoted communication and language development in infants. In a similar study, Meadan et al. (2016) studied the effects of an internet-based training and coaching program for parents of children with autism targeting their children's communication skills. Meadan et al. found that through parent-based implementation of strategies from Meadan et al.'s study, there were positive changes in children's communication skills. These studies provided evidence that using internet-based programs to provide information to families on home-based education can help overcome barriers to parents participating in face-to-face programs.

Digital formats provide families that are not native English speakers an easy way to have information translated into a language they can understand using free online translation tools such as Google translate. Shivraj et al. (2018) studied the construction of home-based, culturally relevant math interventions with input from family members. Shivraj et al.'s study showed how learning materials were introduced to families and affected parent-child interactions. Furthermore, they found the cultural relevance of materials was influential in parents' engagement with materials. Digital formats would allow educators the flexibility to provide a variety of materials and would allow families to choose materials that were culturally relevant to them.

Linking Possible Solutions

With an increase in number of students participating in regular education and early childhood special education programs, it is important to explore factors that could result in benefits for children, families, and society (Bassok & Engel, 2019). Recommended collaborative practices between Early Childhood Special Education staff and families are outlined within policies in the Individuals with Disabilities Education Improvement Act of 2004 and in the recommended practices in *DEC Recommended Practices in Early Intervention/Early Childhood Special Education* published by the Division for Early Childhood of the Council for Exceptional Children (Sandall et al., 2000).This means school teams should work closely with families to not only identify areas of need, but to target those areas of need across environments. The benefits of Early Childhood Special Education services may be enhanced or maximized when children experience learning opportunities across family and community environments in addition to their classrooms (Dunst et al., 2000).

One way for families and caregivers to target their children's IEP goals is to embed home-based learning activities into their daily family routines and in natural environments. Families are in a prime position to target learning for their children. Families have many more opportunities to target learning throughout daily routines simply because children spend the majority of their time with their families. In order to create equitable learning environments for students with disabilities, schools must engage families more fully in the education of their child. Schools must provide training to families on how they can participate in their children's education and take a lead role in monitoring their children's progress on IEPs.

As stated previously, parents of children with disabilities may encounter barriers to implementing home-based learning activities with their children. Parents and caregivers that care for children with disabilities may require a variety of supports in order to implement activities that target their children's IEP goals. When given appropriate support and guidance, families and caregivers can learn and implement new strategies to target learning at home (Dunlap et al., 2006; Kashinath et al., 2006).

One of the simplest ways for families to address their children's educational needs is to embed learning into existing daily routines and natural environments. Additionally, implementation of learning opportunities into daily routines throughout the day can reduce stress on families and result in greater gains for children (Koegel et al., 1996; Schreibman et al., 1991). Furthermore, providing parents with intervention strategies that target multiple developmental areas may reduce the cognitive load on caregivers and result in an increase in learning opportunities for a child. Kashinath et al. (2006) found that when provided coaching on implementing intervention across two or more specific routines, caregivers were likely to generalize these strategies across other daily routines. This increased the number and frequency of intervention opportunities children received.

As Grindal et al. (2016) indicated, "Many early childhood education (ECE) programs seek to enhance parents' capacities to support their children's development" (p. 238). When schools provide parents with ways to overcome barriers to involvement, parents can increase their self-efficacy beliefs and capacity to engage in home-based learning. Parent-efficacy beliefs and capacity building practices have been related to child behavior and development (Dunst et al., 2019). By using online or digital formats to train parents in home-based learning activities, parent capacity can be increased in a relatively

easy manner. Parents can view information relevant to their children at times convenient to parents. Furthermore, online learning modules provide parents with video models of learning targets and the ability to practice activities immediately with their children, thereby increasing the likelihood of success in parent-child interactions (Grindal et al., 2016).

Summary

A review of research relevant to this study showed many benefits to parents being involved in their children's education. However, parents may encounter one or more barriers to involvement. In order to create equitable learning environments for students with disabilities, schools must engage families more fully in the education of their children. Schools must provide support to families on how to participate in their children's education and take a lead role in monitoring their children's progress on their IEP.

The next chapter (Artifact II: Research Approach Narrative) outlines the research approach for this study. This includes the methodological approach taken including a survey of parents and caregivers with students attending the Early Childhood Special Education program in Grand Forks, North Dakota. The goal of the survey was to identify potential barriers to parents' involvement in home-based learning with their children and to develop an innovative solution to help parents and caregivers overcome identified barriers.

ARTIFACT II: RESEARCH APPROACH NARRATIVE

The purpose of this research study was to investigate potential barriers to parent involvement in home-based learning activities for parents of students in the Early Childhood Special Education program in the Grand Forks Public Schools, Grand Forks, North Dakota. A survey study was designed in order to investigate whether the choices of parents of students in Early Childhood Special Education, in regards to being involved in home-based educational activities with their children, was predicted by Hoover-Dempsey and Sandler's model of parent involvement (Hoover-Dempsey et al., 2005), Level 1 (i.e. perceived role construction, perceived efficacy, perceived knowledge and skills, perceived time and energy, perceived specific teacher invitations, specific child invitations). Quantitative data was obtained through a primary data collection process involving a survey. This study aimed to produce generalizable knowledge about barriers that families with students in the Early Childhood Special Education program may be encountering in reference to being involved in home-based learning with their children and to use this knowledge to develop supports to help families overcome identified barriers. Survey results were used to develop an instructional course design matrix (Appendix A) for online parent support modules targeting five developmental domains. Additionally, six modules (Appendices B-G) were completed as examples.

Research Design

The present study utilized a non-experimental research design. Following approval from the University of North Dakota Institutional Review Board and approval from the Assistant Superintendent of the Grand Forks Public School District, participants were recruited through an email sent by the primary investigator. The primary investigator used the TieNet web-based case management system to conduct a search for student IEPs for each of the case managers teaching in the Early Childhood Special Education program. Potential participant email addresses were taken from the cover sheet of the IEPs for students enrolled in each of the seven Early Childhood Special Education classrooms. Each parent or guardian with a listed email address was considered a potential participant. Identified potential participants were emailed a request for participation letter (Appendix H), written in English, describing the purpose of the study, and requesting their participation.

Participants

Participants were eligible to participate if they were the parent or guardian of a 3- to 5-year-old child enrolled in Grand Forks Public Schools' Early Childhood Special Education program and had been classified as a student with a special education disablity according to North Dakota state guidelines. Additionally, children had to be receiving special education services at the time the survey was distributed. Parents of 3- to 5-year-old children receiving special education services but whose child(ren) was(were) not attending the Early Childhood Special Education program, such as parents of children attending the Head Start program or parents of children who were receiving drop-in speech-languge services in their neighborhood school were excluded from this study.

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Context

Grand Forks Public Schools is located on the eastern edge of North Dakota next to the border. The school district also serves a military community on Grand Forks Air Force Base located approximately 18 miles west of the community of Grand Forks. At the beginning of this study, six early childhood classrooms were located on four elementary school campuses including two classrooms at Discovery Elementary, one classroom at Wilder Elementary, two classrooms at Phoenix Elementary, and one classroom at Twining elementary. A seventh classroom was later added; however, families from this school were not sampled because the study was already in process. Each classroom held Early Childhood Special Education classes for two groups per day. Class sessions were 3 hours in length. Students could receive services two, three, our four sessions per week depending on the need described within their Individualized Education Plan. The number of students within each classroom group ranged from eight to twelve students per session. Early Childhood Special Education classrooms served students with a variety of special education needs. To receive special education services, students had to have met criteria as a student with a disability according to North Dakota guidelines and had to require individualized instruction. There were 13 disability categories identified in the North Dakota state guidelines including autism, deaf-blindness, deafness, emotional disturbance, hearing impairment, intellectual disability, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, visual impairment, and non-categorical delay (North Dakota Department of Public Instruction [NDDPI], 2018).

Data Collection Procedures and Analysis

A convenience sample of approximately 66 parents and guardians of Early

Childhood Special Education students was recruited to participate in the study in the

initial email. The original convenience sample was estimated to be approximately 100

parents or guardians of Early Childhood Special Education students; however, due to

movement of students out of the Early Childhood Special Education program into

kindergarten, dismissal from special education services, or movement out of the Grand

Forks Public Schools system, the number of potential participants dropped to 66.

The study survey was first distributed on October 2, 2021. In the first round of

recruitment emails, three participants responded. In a follow-up recruitment email sent on

October 12, 2021 (Appendix H), an additional four parents and guardians responded.

This second email was identical to the first. The recruitment email included a description

of the purpose of the study and a request for participation in the study. The survey on this

original recruitment attempt was closed October 17, 2021.

The original recruitment effort following two recruitment emails did not result in

a large enough sample size for analysis. It was determined that a third attempt to recruit

participants should be pursued. Because the process for permission to conduct research in

the Grand Forks Public Schools had changed, the researcher had to reacquire approval to

conduct research from the Grand Forks Public Schools superintendent. After this

permission was secured, a protocol change form was submitted to the University of North

Dakota Institutional Review Board requesting permission to revise the original research

protocol for the study. Once permission was obtained from the University of North

Dakota's Institutional Review Board, a third follow-up email was sent to the original

sample of potential participants in an effort to increase participation. The third recruitment email thanked the original subjects for their participation. The email, sent on March 20, 2022, went on to request participation of parents or guardians that had not responded to the first two emails. The third follow-up request for participation email (Appendix I) additionally contained a picture of the primary researcher in the upper right hand corner. This was done in the hopes of increasing participation. The survey link in the third recruitment email was closed on March 30, 2022.

A statement in each recruitment email informed participants, here forward called subjects, that by clicking on the embedded link in the email and completing the survey, subjects would be providing their informed consent. Once the link was activated, subjects were directed to the online survey provided through UND Qualtrics survey tool. Subjects were not provided compensation for their participation; however, they were informed that their participation in the survey would benefit the improvement of the Grand Forks Public Schools' Early Childhood Special Education program. The study aimed to collect honest responses from participants without any pressure therefore email addressess were not collected to maintain anonymity of subjects. To ensure surveys were reliable and valid, the format of the survey allowed for honest responses and respondents were only allowed to complete the survey one time.

Presentation and Analysis of Data

Information presented in this section was based on data collected from the survey used in this study, *Identifying Possible Barriers to Parent Involvement Survey* (Appendix J). The intent was to conduct the survey with 66 parents and guardians of students in the Early Childhood Special Education program; however, response rate obtained was 35%.

Of the 23 submitted surveys only 18 were at least 70% complete; therefore, 18 surveys were included in the data analysis.

Demographics

Of the 18 participants that completed the online survey, *Identifying Possible Barriers to Parent Involvement in ECSE*, all subjects identified English as the primary language spoke in their home. In the breakdown of self-identified ethnicities, 14 participants identified as White, two identified as American Indian or Native Alaskan, and two identified as Black or African American. Subject ethnicity is shown in Table 1.

Table 1

Subject Self-Identified Ethnicity

Ethnicity	N	%
American Indian or Native Alaskan	2	11.1%
Black or African American	2	11.1%
White	14	77.8%

Subjects were asked to indicate who, in their home, had the primary responsibility for working with the education needs of their child(ren). The most common answer was both parents, with a 50% response rate. The second most common response was mom at 44.4%. Dad was third with a 5.6% response rate. Table 2 depicts the results to this question.

Table 2

Primary Responsibility for Working With Education Needs of Child(ren)

Primary Home Educator		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Both	9	50.0	50.0	50.0
	Dad	1	5.6	5.6	55.6
	Mom	8	44.4	44.4	100.0
	Total	18	100.0	100.0	

Subject self-reported level of education is shown in Table 3. Level of education ranged from high school graduate to college graduate to some college. With regard to frequency, the most common education level reported was college graduate with 13 participants responding, followed by some college with three subjects responding, and high school graduate with one subject responding. One subject did not report an education level on their survey.

Table 3

Subject Self-Identified Level of Education

Level of Education		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	5.6	5.6	5.6
	College graduate	13	72.2	72.2	77.8
	High school graduate	1	5.6	5.6	83.3
	Some college	3	16.7	16.7	100.0
	Total	18	100.0	100.0	

Thirteen disability categories are identified in North Dakota's state guidelines. Respondents were asked to provide the primary disability category identified on their child's Individualized Education plan. Of the available 13 disability categories, two categories—Non-Categorical Delay and Speech-Language Impairment—were the most frequent disability categories reported by participants; each of these categories resulted in six responses. Autism was the next most frequent choice at three responses, and Multiple Disabilities and Deafness were each reported by one participant. One participant did not report their child's primary disability category. The number of responses by disability category is shown in Table 4.

Table 4

Primary Disability Category Listed on Child's IEP

	Primary Disability	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Did Not Answer	1	5.6	5.6	5.6
	Autism	3	16.7	16.7	22.2
	Deafness	1	5.6	5.6	27.8
	Multiple Disabilities	1	5.6	5.6	33.3
	Non-Categorical Delay	6	33.3	33.3	66.7
	Speech-Language Impairment	6	33.3	33.3	100.0
	Total	18	100.0	100.0	

The number of children between the ages 0-18 is shown in Table 5. The most frequent response to number of children living in the home was two (11 responses),

followed by one child (4 responses). Three participants did not indicate the number of children living within their home.

Table 5

Number of Children (0-18) Residing in the Home

No. of Children		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Did Not Answer	3	16.7	16.7	16.7
	1	4	22.2	22.2	38.9
	2	11	61.1	61.1	100.0
	Total	18	100.0	100.0	

Instrument

An 11-item survey tool (Appendix J), based on questions from the *Parent Involvement Survey* and revised by Walker et al. (2005), was developed to investigate the potential barriers to parental involvement in home-based learning activities. Ten survey items utilized a 6-point likert scale (1 = *Disagree very strongly*; 2 = *Disagree*; 3 = *Disagree just a little*; 4 = *Agree just a little*; 5 = *Agree*; 6 = *Agree very strongly*). An open-ended survey question was added at the end of the survey for participants to list any additional barriers to parental involvement not addressed in the previous survey questions. A demographics section was added to collect information regarding the child's special education primary disability, gender of the participant, ethnicity of the participant, participant level of education, and number of children aged 18 and under residing in the household. The primary investigator estimated that the survey took subjects approximately 5-10 minutes to complete. The use of UND Qualtrics allowed subjects to

complete the survey at their own convenience. Subjects were able to complete the survey on a computer, mobile phone, or other device with internet capability. This was done in hopes of increasing the number of participants in the study. Additionally, the survey was kept brief in length in an effort to increase the likelihood that participants would be willing to complete the entire survey.

Results

Table 6 shows responses for the first survey question that will be presented for discussion and analysis. Survey Question 1 asked subjects to rate their agreement to the statement, "I have enough time to help my child with learning activities at home related to their IEP goals." Eleven participants agreed or strongly agreed with the statement. Three subjects slightly agreed, and two subjects strongly disagreed.

Table 6

I Have Enough Time to Help My Child With Learning Activities at Home . . .

I have enough time to help my child with learning activities at home related to their IEP goals.	N	%
(1) Strongly Disagree	2	11.1
(2) Disagree	1	5.6
(3) Slightly Disagree	1	5.6
(4) Slightly Agree	3	16.7
(5) Agree	9	50.0
(6) Agree Very Strongly	2	11.1

In Survey Question 2, participants were asked to rate their agreement in regards to the level of energy they had to help their child with learning activities at home related to

their IEP goals. Table 7 shows the results of responses to "I have enough energy to help

my child with learning activities at home related to their IEP goals." The majority of

repondents replied that they slightly agreed or agreed with the statement. One subject

strongly disagreed with the statement and one subject slightly disagreed with the

statement. No subject disagreed or agreed very strongly with the statement.

Table 7

I Have Enough Energy to Help My Child With Learning Activities at Home . . .

I have enough energy to help my child with learning activities at home related to their IEP goals.	N	%
(1) Strongly Disagree	1	5.6
(2) Disagree	0	0.0
(3) Slightly Disagree	1	5.6
(4) Slightly Agree	7	38.9
(5) Agree	9	50.0
(6) Agree Very Strongly	0	0.0

Survey Question 3 addressed subjects' level of agreement to a statement

regarding their subject (topic) knowledge of course material in order to support their

child's IEP with learning activities within the home. The majority of respondents either

slightly agreed with the statement or agreed with the statement. Five respondents stated

they slightly agreed they had the subject knowledge needed and seven respondents agreed

they had the subject knowledge to support their child. Three respondents agreed very

strongly that they had the subject knowledge to support their child with learning activities

at home related to their child's IEP. Three subjects had some level of disagreement with

the statement. Table 8 shows responses to "I have the subject knowledge to support my child with learning activities at home related to my child's IEP goals."

Table 8

I Have the Subject Knowledge to Support My Child With Learning Activities . . .

I have the subject knowledge to support my child with learning activities at home related to my child's IEP goals.	N	%
(1) Strongly Disagree	1	5.6
(2) Disagree	1	5.6
(3) Slightly Disagree	1	5.6
(4) Slightly Agree	5	27.8
(5) Agree	7	38.9
(6) Agree Very Strongly	3	16.7

Table 9 shows responses to Survey Question 4 where subjects were asked to rate their level of agreement with the statement, "I feel successful about my efforts to help my child learn at home." Most subjects (14) indicated some level of agreement with the statement. Ten subjects agreed they were successful in helping their children learn at home; two subjects agreed very strongly. Two subjects slightly agreed they were successful helping their children at home. Five subjects' responses indicated a level of disagreement with two slightly disagreeing, one disagreeing, and one strongly disagreeing with the statement.

Table 9

I Feel Successful About My Efforts to Help My Child Learn at Home

I feel successful about my efforts to help my child learn at home.	N	%
(1) Strongly Disagree	1	5.6
(2) Disagree	1	5.6
(3) Slightly Disagree	2	11.1
(4) Slightly Agree	2	11.1
(5) Agree	10	55.6
(6) Agree Very Strongly	2	11.1

Remaining questions from the survey addressed subjects' interactions with the Early Childhood Special Education teaching staff in regard to their child(ren)'s education and goals. Table 10 illustrates responses to Survey Question 5, which addressed subjects' level of agreement with the statement "Teachers at my child's school are collaborative when they discuss my child with me." All subjects indicated a level of agreement with this statement in Survey Question 5. The majority of subjects indicated they agreed very strongly (10), followed by those who agreed (7), with one subject indicating slight agreement. No subject disagreed with this statement.

Continuing, Survey Question 6 addressed subjects' level of agreement with the statement "Teachers at my child's school treat me as an equal partner in my child's education." Similar to the results in Survey Question 5, all responses indicated some level of agreement that subjects felt that they were treated as an equal partner in their child's

education with nine agreeing very strongly, eight agreeing, and one subject slightly

agreeing. Responses to Survey Question 5 are shown in Table 11.

Table 10

Teachers At My Child's School Are Collaborative . . .

Teachers at my child's school are collaborative when they discuss my child with me.	N	%
(1) Strongly Disagree	0	0.0
(2) Disagree	0	0.0
(3) Slightly Disagree	0	0.0
(4) Slightly Agree	1	5.6
(5) Agree	7	38.9
(6) Agree Very Strongly	10	55.6

Table 11

Teachers at My Child's School Treat Me as an Equal Partner . . .

Teachers at my child's school treat me as an equal partner in my child's education.	N	%
(1) Strongly Disagree	0	0.0
(2) Disagree	0	0.0
(3) Slightly Disagree	0	0.0
(4) Slightly Agree	1	5.6
(5) Agree	8	44.4
(6) Agree Very Strongly	9	50.0

Survey Question 7 asked subjects to indicate their level of agreement to the

statement "The teachers [at] my child's school regularly (at least one time a month or

more) keep me informed about my child's progress in school." Again, all subjects indicated some level of agreement with eight subjects indicating they agreed very strongly, seven indicating they agreed, and three indicating they slightly agreed. Results are displayed in Table 12.

Table 12

The Teachers at My Child's School Keep Me Informed About My Child's Progress

The teachers my child's school regularly (at least one time a month or more) keep me informed about my child's progress in school.	N	%
(1) Strongly Disagree	0	0.0
(2) Disagree	0	0.0
(3) Slightly Disagree	0	0.0
(4) Slightly Agree	3	16.7
(5) Agree	7	38.9
(6) Agree Very Strongly	8	44.4

Survey Question 8 investigated subjects' level of agreement to the statement, "The teachers [at] my child's school regularly (at least one time a month or more) share ways that I can support my child's learning at home." Table 13 demonstrates the results of Survey Question 8. As was the case in some of the earlier questions, most subjects indicated some level of agreement, with 12 subjects agreeing or agreeing very strongly. Four subjects indicated they slightly agreed with the statement, one respondent slightly disagreed with the statement, and one subject disagreed.

Table 13

Teachers Regularly Share Ways I Can Support My Child's Learning At Home

The teachers [at] my child's school regularly (at least one time a month or more) share ways that I can support my child's learning at home.	N	%
(1) Strongly Disagree	0	0.0
(2) Disagree	0	0.0
(3) Slightly Disagree	0	0.0
(4) Slightly Agree	3	16.7
(5) Agree	7	38.9
(6) Agree Very Strongly	8	44.4

Table 14 exhibits the results of Survey Question 9. Subjects were asked to indicate their level of agreement with the statement, "The teachers at my child's school regularly (at least one time a month or more) recommend activities that are representative of our home culture." In the case if this question, there was slightly more variability in the answer. The largest group of subjects responding in a like manner specified they slightly agreed (6) with the statement. The second highest ranking was *agree* (5 responses), and *agree very strongly* was third (4 responses). One subject indicated they slightly disagreed with the statement and one disagreed.

Subjects were then asked in Survey Question 10 to indicate their level of agreement to the statement, "Information about my child is shared with me in a language that I can understand." Not surprisingly, all subjects indicated high levels of agreement since all respondents indicated that English was the language they spoke and ECSE

teachers communicated with families in English. Table 15 shows that eight subjects

agreed with the statement and ten subjects agreed very strongly.

Table 14

Teachers Regularly Recommend Activities Representative of Subjects' Home Culture

The teachers at my child's school regularly (at least one time a month or more) recommend activities that are representative of our home culture.	N	%
(1) Strongly Disagree	1	5.6
(2) Disagree	1	5.6
(3) Slightly Disagree	1	5.6
(4) Slightly Agree	6	33.3
(5) Agree	5	27.8
(6) Agree Very Strongly	4	22.2

Table 15

Information About My Child Is Shared With Me in a Language I Can Understand

Information about my child is shared with me in a language that I can understand.	N	%
(1) Strongly Disagree	0	0.0
(2) Disagree	0	0.0
(3) Slightly Disagree	0	0.0
(4) Slightly Agree	0	0.0
(5) Agree	8	44.4
(6) Agree Very Strongly	10	55.6

The final survey question was an open-ended question where subjects were asked to discuss any other barriers to home-based involvement not addressed in the previous ten questions. It was expected that all respondents would complete the open-ended question; however, of the 18 subjects included in this study only five subjects completed this question. The surveys were completed during the COVID-19 pandemic, and survey fatigue could have contributed to a respondent's decision not to provide an answer to the open-ended question. Two subjects, 11.1% indicated no other barriers by stating "None" and NA (not applicable). Three subjects, 16.7%, did provide a response to the question. Their answers are provided in the chart shown in Table 16. The rest of the subjects, 72.2% left the open-ended question blank.

Table 16

Responses to Request for Information on Barriers Not Discussed in Survey

Q11. Please discuss any other barriers to home-based involvement not addressed.	
Response 7	I feel now that we aren't allowed in the schools for pick up that I don't get to talk to the teacher in person at pick up. I learn so much more when that is an option compared to when they just send home a folder with a note in it.
Response 9	Time is the biggest factor. There is never enough time to work on everything!
Response 14	We have felt very welcome and accommodated in all aspects of our child's educational experience. We couldn't be happier. The only barrier we have is lower energy from work stresses that every parent experiences.

Discussion of Findings

The Hoover-Dempsey and Sandler model of parent involvement has been used as a theoretical framework to examine specific predictors of parent involvement. Level 1 of the model discusses motivators for parental involvement including parents' motivational beliefs in regard to involvement, parents' perceptions of invitations for involvement from others, and parents' perceived life context (Green et al., 2007). Based on the results of this study, it appeared that time, energy, skills, and knowledge were the most identified barriers to home-based involvement encountered by parents with students receiving special education services in the Early Childhood Special Education classroom. These barriers aligned with parents' perceived life contexts outlined in the first level of Hoover-Dempsey and Sandler's model.

The identification of time as a barrier agrees with the findings of several other studies (Baker et al., 2016; Gerzel-Short, 2018; Hilado et al., 2013). Families lead busy lives and there are many parental responsibilities that may affect the amount of time parents and caregivers have available to engage in home-based learning with their child. Educators must work with families to identify ways to embed learning opportunities into already existing family routines and across natural environments (Koegel et al., 1996; Schreibman et al., 1991). As stated previously, parents that have a child with a disability can have additional constraints on their time. With the appropriate support and guidance, families and caregivers can learn and implement new strategies to target learning at home (Dunlap et al., 2006; Kashinath et al., 2006), thereby increasing the number of learning opportunities for their child(ren).

Similarly, to the barrier of time, the identification of skills and knowledge as a barrier to home-based involvement also agrees with previous research (Curtiss et al., 2016; Rispoli et al., 2018; Schnieder & Arnot, 2018). Parents may not understand learning activities that teachers send home for their children or may not know how to begin to help their children learn (Gerzel-Short, 2018). This can be especially true when a child has a disability. Therefore, educators must equip parents with the knowledge to assist in educating their child with disabilities. Providing parents specific knowledge on how to adapt and scaffold learning activities for their children may increase parent capacity and the likelihood that parents will continue to engage in future home-based learning activities. Parents may need to be told "how" to work on specific skills related to their child's IEP goals.

Additional findings demonstrated that approximately 33.3% of parents who completed the study survey only slightly agreed that teachers were providing them home-learning activities for their children that were representative of the family's home culture. This finding may add further support to the research completed by Ishimaru (2019) that demonstrated there are differing views between school and families of what activities are considered home-based involvement. Schools may be suggesting academic activities whereas parents may be looking for activities that embed home-based learning into cooking, family traditions, and moral lessons (Ishimaru, 2019). This finding may also demonstrate that there is a specific area of communication or need that is lacking between educators and families. Educators must be conscious of culture when recommending home-based learning activities to families and caregivers.

Furthermore, analysis of parent and caregiver responses to the study survey showed parents did not perceive general school invitations or specific teacher invitations as barriers. This result was in agreement with the study completed by Rodriguez, Blatz, and Elbaum (2014). Positive actions taken by teachers to communicate regularly with parents and caregivers may increase involvement. It would appear that parents who had a child in the ECSE program felt that teachers and schools were making an effort to keep the lines of communication open. In addition, 66.7% (*agree* to *strongly agree*) of parents and guardians stated they felt successful in their efforts to help their children learn at home. This would appear to indicate that parental self-efficacy was not a barrier to home-based involvement. The majority of parents who completed the study survey had some level of college education, and their level of education may have influenced their feelings of self-efficacy and maybe made them feel better equipped to engage their child in home-based learning activities. This finding would align with those in the study conducted by Walker et al. (2005) which showed that parents with high-self efficacy have higher expectations of their abilities to successfully engage their children in learning activities.

In sum, to make the largest impact for students and their families regarding involvement, Early Childhood Special Education programs should focus their efforts on increasing parent motivation to being involved by helping parents overcome barriers that relate to parent perceived life contexts, specifically by partnering with families to overcome the barriers of time, knowledge, and skills. As stated in Head Start's Parent, Family, and Community Engagement Framework (PFCE), parents, families, and teachers need to partner with families to target goals related to children's learning and development. When these groups work collaboratively, benefits of student interventions

can be maximized when children are given learning opportunities across activities within the school, home, and community (Dunst et al., 2000).

As this study showed, parents and caregivers felt teachers were communicating with them regularly and providing suggestions on skills to target with their children at home. However, approximately half the parents identified skills and knowledge as a barrier to engaging in home-based learning activities with their children. This perhaps indicates that telling parents "what" to work on is not enough. Parents may need to be provided information on "how" to work on specific skills related to their children's disabilities and IEP goals. Individualization and modification of programing can lead to greater parent involvement, which will lead to greater student achievement. Crosby et al. (2015) felt by providing parents supports, such as online training modules, educators can give parents concrete models and examples of how to embed learning into everyday routines and adapt activities for each child's specific disability in order to positively affect their child's social-emotional and academic achievement. In helping parents empower themselves by increasing knowledge and capacity to implement learning opportunities at home, schools can support parents and caregivers to significantly affect the future of their children (Pstross et al., 2016).

Furthermore, school district leadership must recognize that there may be a disconnect between a family's cultural beliefs and norms and what is expected in schools. This can lead to parents being unsure of their roles and expectations within the education system. School district leadership must build a culture of parent engagement within school districts that includes preschool through 12th grade. School district leadership must be a driving force in parental involvement. They must prioritize and ensure that teachers

are provided opportunities to communicate regularly with parents either face-to-face, or through an online format (Hornby & Blackwell, 2018). Moreover, school district leadership must provide educators professional development on communication with families. The quality of family communication needs to be a focus of training (Baker et al., 2016). Teachers should also consider conducting a needs assessment to determine how to individually support each parent. Providing parents specific information regarding their children in a timely manner not only creates a school culture of openness and friendliness, but also provides parents the necessary information to support their children.

Limitations and Suggestions for Future Research

This study sought to contribute to the field of research on parent-involvement in the early childhood population. The primary research question posed by this study was: What are potential barriers to parent involvement in home-based learning activities for parents of students in the Early Childhood Special Education program in the Grand Forks Public Schools. One limitation of this study could be the small sample size. The only parents and guardians of a child receiving Early Childhood Special Education classes in the Grand Forks Public schools were sampled. In the future, surveying parents with students in Early Childhood Special Education programs in other communities would provide information that would be more easily generalized to other programs state-wide or even nation-wide. Another limitation was that the survey was distributed was distributed via email. Although this method was meant to be more efficient for potential subjects, emails may have been diverted to spam or potential subjects may not have been willing to use their cellular data to complete the survey. Mailing the survey with self-addressed stamped envelopes may have ensured that parents and caregivers received the

survey. A third limitation was that most of the parents and guardians that completed the

survey self-identified as white, college graduates, thus there was not much variability in

subjects. Again, surveying a larger number or parents in additional communities may

result in more respondents and more variability. Furthermore, sampling respondents from

other regional areas of the United States may results in more variability in respondents. A

fourth limitation to this study may have been that a qualitative methodology chosen for

this study. An interview method may have provided parents an opportunity to elaborate

on the barriers they may be experiencing. The researcher could have used probing

follow-up questions to parental answers which may have resulted in more information

than was gleaned during the survey. Although there were two open-ended questions

included in this studies survey, only three participants chose to provide answers

elaborating on barriers that they were experiencing. Furthermore, there is the possibility

that there are barriers that parents and caregivers are experiencing that were not identified

through the survey methodology. One final limitation for this study was that it took place

during the COVID-19 global pandemic during which a large number of surveys were

distributed from various entities including businesses, schools, and the government. The

frequency and number of surveys may have contributed to survey fatigue and resulted in

the low number of parent and caregiver responses to the survey distributed for this study.

Repeating the study in the future may result in not only more respondents but also

identification of different barriers to home-based involvement.

Summary

Chapter II provided a description of the purpose of the study. The research design,

methodological approach, participates, procedures, and survey were also described in

Chapter II. Data collection, analysis, and the presentation of results were depicted

throughout Chapter II. Quantitative and descriptive statistics were conducted to identify

parent and guardian perception of barriers to home-based involvement. Finally, a

discussion of findings as well as limitations of the and suggestions of future research

were described.

Results of the study demonstrated that time, energy, and subject knowledge with

the most frequent barriers to involvement in home-based learning as identified by parents

and caregivers. Half parent and guardian responses (50% *slightly agree* to *strongly*

disagree) indicated that they did not have the time to help their child with learning

activities related to their IEP. Many parents and guardians indicated that they did not feel

that they had the subject knowledge to implement home-based learning activities with

their child (44.6 % *slightly agree* to *strongly disagree*). Additionally, 50.1% (*slightly*

agree to *strongly disagree*) of parents indicated that they did not have the energy to help

their child with home-based learning activities. These statistics were further supported by

the three answers to the open-ended questions. The barriers indicated by parents in the

survey would fall under the "Life Context Variables" in level 1 of the HD-S Model of

Parent involvement. Research shows the amount of time and energy perceived by parents

to be a predictor of home-based involvement (Fishman & Nickerson, 2015; Green et al.,

2007; Hoover-Dempsey et al., 2005). Furthermore, 33.3% of parents only slightly agreed

that teachers provided them with learning activities that were representative of their home

culture. This may indicate that this group of parents felt that this is a need that is not

currently being met. Chapter III will present a solution to the problem of practice that

Early Childhood Special Education programs can use to assist families in overcoming

barriers to home-based parent involvement.

ARTIFACT III: IMPLEMENTATION OF SOLUTION

Review of Project

The goal of this study was to review innovative ways to help families and caregivers of students in Early Childhood Special Education classrooms overcome barriers to involvement in home-based learning activities associated with their child's IEP. The solution to the barriers needed to align with Level 1 and Level 2 of the *Hoover-Dempsey and Sandler Model of the Parental Involvement Process* (Walker et al., 2005). Level 1 of the HD-S Model describes parent's motivations for involvement in children's education including personal motivators, parent perceptions of invitations to be involved, and life context variables. Level 2 focuses on the learning mechanisms used by parents during involvement activities including encouragement, modeling, reinforcement, and instruction. The frequency of response data from parent/caregiver surveys used in this study based on the HD-S model, regarding possible barriers to home-based involvement in learning activities, was analyzed to determine whether there was a need for parent support modules targeting five developmental domains. A course design matrix (Appendix A) for parent support modules and six modules were created as initial examples of how to embed learning into everyday family routines. Head Start's Parent, Family, and Community Engagement Framework, although developed for early childhood students in a general education setting, was used as a model to develop support modules for parents, a website to house the support modules, as well as additional resources. The intended audience for the support modules includes parents and caregivers

of students receiving special education and related services in an Early Childhood Special Education program.

Course Design Matrix

The course design matrix (Appendix A) was developed to organize information for the development of parent support modules and to ensure alignment of the instructional components. The topic section of the matrix was developed to include an introduction to home-based learning. Developmental domains for the other five topic areas were chosen from the North Dakota Early Learning Standards (2018). Domains to be targeted in the course design matrix included: Language, Communication, and Literacy, Cognition (learning, thinking, problem solving), Approaches to Play and Learning (emotional, behavioral, and cognitive self-regulation), Social and Emotional Development (ability to develop and continue meaningful relationships with adults and children), and Perceptual, Motor, and Physical Development. The Perceptual, Motor, and Physical domain is broken down into four elements. The first element, perception, refers to a child's ability to use their senses to gather and understand information from their world. The second element concerns gross motor skills, or the skills that use large muscle groups and whole-body movement. The third element represented is fine motor skills or the skills that require the use of the small muscles such as those in the hands and wrists. The final element that makes up this domain is health, safety, and nutrition which involves a child's knowledge and use of safe, healthy routines and behaviors (NDDPI, 2018). The Social Studies and Creative Arts domains will not be targeted in this project.

Each module has between one and three learning objectives identified. Learning objectives were written using action verbs from Bloom's Taxonomy. Objectives were

written broadly so that future modules could be added to address the learning objectives. The course design matrix additionally lists two to four simple activities to complete the module. Parents and caregivers are first instructed to watch the module then are given two to four simple activities that will allow them to practice the new knowledge gained from the module. A resource section in the matrix provides parents with additional resources such as a link to the support module, videos, PDF strategy guides, and module PowerPoint handouts. The instructor notes section of the matrix contains additional reminders for parents and caregivers to review their child's IEP and progress notes before beginning activities. Additionally, parents and caregivers are encouraged to contact their child's teacher and other service providers for additional suggestions and supports. As new modules continue to be developed, the course design matrix will be amended to add additional activities, resources, and instructor notes.

Parent Support Modules

Green et al. (2007) offered many strategies to enhance parent capacities for effective involvement. They state that parents should be given a wide-range of activities that are either grade-level or developmentally appropriate. Green et al. further stated that parents should be provided with learning activity suggestions that target "parents' knowledge, skills, time, and energy" (p. 120. Green et al. go on to further suggest that families should create home-based learning tasks that focus on the family routines and activities. The current parent support modules serve the purpose of an introduction to embedding home-based learning activities targeting five developmental domains into family routines and draw on the suggestions provided by Green et al., (2007). Functional content was chosen for the modules by selecting strategies that are based in naturally

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occurring routines and activities (Curtiss et al., 2015). Modules were developed using PowerPoint, and presentations of the materials were narrated and recorded using the slide show recording feature. Because time was identified as a barrier to home-based learning, each module is fifteen minutes or less in length. Each module starts with a statement of the learning objectives. Background information about the strategies to be targeted in the module and their importance are the next areas covered in the presentation. It is important for families and caregivers to have a practical content that is easy for them to embed in their daily routines. As stated previously strategies that embedded into current routines may reduce stress and cognitive load on families and result in an increase in learning opportunities for the child (Koegel et al., 1996; Schreibman et al., 1991). Additionally, parents are supplied at least two to three scenarios that illustrate the strategy embedded into a routine. An embedded video provides further information and visual depiction of the learning strategy being discussed in each module. Finally, parents are provided examples of additional ideas and activities where the learning strategy can be implemented. A resource page completes each module and shares where parents can find additional information on the strategy that was taught. Handouts of the PowerPoint slides used in the parent support modules are provided for parents. Parent's whose first language is not English, can use an online translation resource to easily translate the information provided in the modules into their native language.

Access to Modules

It is important for families and caregivers, teachers, and related services providers to be able to access the parent support modules. One option is for the modules to be housed in an Early Childhood Special Education team drive. In this option, teachers would be able to access specific modules that are relevant to a child's current needs and send a link of the module to the parents via email or other digital parent communication (ex. SeeSaw, Remind App, etc.) A benefit to this method is that teachers would provide parents and guardians with modules that were appropriate for their child's current level of performance, however, this would deny parents the opportunity to view modules that they felt were a priority for their child. Another option would be for modules to be housed on the district website under the Special Education Tab. Additionally the access benefits listed in option one, parents would be able to self-select the modules that interested them or that they felt were the most meaningful for their child. A final option would be for the Early Childhood Special Education Program to develop their own website that housed the parent support modules as well as other resources and materials to support parents and caregivers in home-based involvement. This would also provide a place for additional parent support modules to be added in the future as topics are identified as areas of need.

<center>**Google Site With Parent Support Modules**</center>

A Google site was developed by the researcher for the purposes of this study. The site was composed of a home page with a welcome note and directions on how to navigate the site. Each developmental domain has its own tab. Modules were housed under their corresponding developmental domains. Each module contains a slide show lecture, handouts with supporting information, and existing related videos demonstrating

<center>92</center>

skills that are being targeted. A reference page appropriately credits the authors of the

handouts, videos, and sources of information that went into the development of each

module. The site was created so that additional modules could be added in the future.

Please find the link for the ECSE Home-Based Learning Modules site directly below this

paragraph. If you have any trouble viewing the Google site, please contact Nicole

Reybok at nreybok@gmail.com.

ECSE Home-Based Learning Modules Site Link

CONCLUSIONS

The goal of this study was to identify potential barriers to parent involvement to home-based learning activities and to develop a potential solution to help families overcome those barriers. The preceding chapters outlined the problem of practice and its significance, a review of research relevant to addressing the problem, a research approach proposed to address the problem, results of the research, and a series of parent support modules that were developed as a solution to the problem. This chapter will outline conclusions developed as a result of this study.

Discussion

This quantitative survey of parents with students receiving special education services within an Early Childhood Special Education classroom examined possible barriers to home-based involvement encountered by parents and caregivers. For those special educators serving students in an Early Childhood Special Education setting, it is important to understand what barriers to home-based involvement a family may be encountering. Data from the survey of parents with students in the Early Childhood Special Education was analyzed and used to develop a possible solution to the identified barriers.

Reflections and Contributions to Professional Practice

Identifying and overcoming barriers to family involvement is a complex issue that involves school district leadership, educators, parents, and caregivers, and even students.

For some parents with a child participating in the Early Childhood Special Education (ECSE) setting the extent of their involvement is participating in their child's annual IEP meeting. The benefit of parental involvement is well established in the research however, parents and caregivers experience barriers that may prevent them from engaging in home-based learning activities. Conclusions drawn from this research study show that parents and caregivers with a child in the Grand Forks Public Schools ECSE program are experiencing the barriers of time, energy, skills, and knowledge. Although parents feel that the communication with their child's teacher is sufficient and that teachers *are* offering them suggestions of how to target their child's goals at home there is still more that can be done to support families and caregivers. One-third of parents slightly agreed that their child's teacher provided them with home-based learning activities that were representative of their home culture. This may indicate that parents and caregivers may be missing important information. It will be important for educators to be specific in their communications with families, so it is not one sided. Communication with families must be give and take, only then will teachers have the relevant information needed to share activities that are pertinent to the families' daily routines and that representative of the families' home cultures. Additionally, a needs assessment can be conducted for each family, so that parents are provided with information in areas that they feel that they need support.

In order to fully engage parents as partners in their child's education teachers in the Early Childhood Special Education program need to explore ways to build parent capacity for targeting student's IEP goals. In order to build parent capacity, teachers in the ECSE program needs to provide training and education to families and caregivers so that they are

able to support their child's IEP goals in the home and community setting. Although the Head Start Parent, Family, and Community Engagement Framework was designed for a general education setting, many of its elements can be implemented with Early Childhood Special Education programs. In order to engage their families and to assist in building capacity, Head Start designed a website that houses videos, handouts, pamphlets, and a host of additional material aimed at helping families and caregivers overcome barriers and to increasing parent capacity to work with their child on learning and school readiness. The amount of funding to create such a cite is not always available to all special education programs, however, that does not mean that the research and framework cannot be utilized to develop something on a much smaller scale for Early Childhood Special Education programs.

One way that educators can help families and caregivers of students in the Early Childhood Special Education program overcome barriers and fully engage in their child's education is to follow Head Start's lead and provide families support modules or training opportunities. The purpose of this study was to develop a solution to the barriers of time, energy, skills, and knowledge. To that end, as part of this study, parent support modules were developed to enable parents to access information from their personal devices at their own convenience. The hope was that parents would be able to view the material, which was presented in a short video presentation, and then implement the strategies outlined in the training modules. The modules will allow parents to view the material as many times as necessary in order to feel comfortable trying a strategy.

Parents were also provided a course design matrix that provided additional suggestions for skills practice and further resources targeting the specific skills. The sample

modules developed were meant to be a starting point for targeting skills within the early childhood developmental domains. There is additional material that could and should be added to help build parent capacity in supporting their child's IEP goals in home-based learning activities. For the purposes of this study, topics for modules were chosen by the researcher, however, in the future it will be critical to seek out parent input on module topics. Allowing parents to customize their learning by providing parents a choice in material that they would like to view may increase the likelihood that they will implement the strategies presented. Furthermore, providing parents a choice in the topics will ensure that material they chose to watch is relevant to their child's IEP goals. Although watching a video module that did not relate to their child's needs would be a way to increase parent skills and knowledge it would not be a good use of parents already precious time and energy. Therefore, finding a way to allow parents to personalize their learning should be addressed. Another means of personalization would be to provide a variety of activities that are representative of different cultures. Again, a family needs assessment can help educators to ensure that families are being provided educational activates and resources that are reflective of their home culture and routine.

As stated previously, the online parent support modules in this project were meant to provide a possible solution to the barriers of time, energy, skills, and knowledge. It should be stated that this is just one approach to solving the problem of practice. As such, this training format may not meet the needs of all parents and caregivers. Some parents and caregivers may prefer an in-person training option where they are provided the information, see the skills modeled by an educator, and are then able practice the skill with the coaching and feedback of a member of their child's education team. This method of parent support

would not help families overcome the barriers of time and energy, however, not all families may be encountering these barriers. Therefore, in the future, a variety of options for presentation of the parent support module material may need to be created to personalize parent support for the implementation of home-based learning activities that target their child's IEP goals. As stated, many times throughout this paper, parental engagement is an essential element in the social-emotional and academic achievement of students. However, barriers to this involvement continue to exist, it is the responsibility of educators and school district leadership to help parents identify and overcome the barriers to involvement. Only then, can they truly become equal partners in the education of students.

Summary

Chapter IV outlines the conclusions drawn from this research study. Additionally, chapter IV provides the authors reflections on how this research study addresses the problem of practice. Finally, the author discusses how the findings of this research study and the solution to the problem of practice developed from the data contribute to the professional field.

APPENDICES

Appendix A
Course Design Matrix

Topics	Learning Objectives	Activities	Resources	Instructor Notes
Introduction to Home-based learning	1. Define home-based learning. 2. Explain the positive effects of family engagement on student outcomes 3. Define the term generalization	1. Watch course tutorial module 2. Watch *Why Play Based Learning Is So Important* video 3. Review your child's IEP goals and progress notes 4. Watch *Child Learning Comes Naturally* video 5. Identify one routine where you could incorporate home-based learning for your child	Course tutorial module PowerPoint handout Importance of Play Based Learning Naturally Occurring Learning Everyday Learning at Home Child Learning Comes Naturally video Everyday Child and Family Activities Parent Center Learning Hub home-based learning activities	Start thinking about ways that you could incorporate home-based learning activities into your everyday routines. Review your child's IEP and progress notes Contact your child's teacher for suggestions and support
Domain 1 **Language, Communication, and Literacy**	1. Infer what your child is trying to communicate	1. Watch Behavior Is Communication! Module	Course tutorial module PowerPoint handout	Start thinking about what your child may be trying to tell you with their behavior

	through their behavior 2. Identify how to use visuals to help your child communicate	2. *Watch Behavior is Communication* video 3. Watch ecta video on *Your Child's Language Learning* 4. Identify pictures or objects in your home that can be used to help your child communicate	• Behavior is Communication Video • ecta practice guide for supporting your child's language • ecta video on Your Child's Language Learning • Communication and your nonverbal child	• Review your child's IEP communication goal(s) and progress notes • Contact your child's teacher and Speech-Language pathologist for suggestions and support
Domain 2 **Cognition** **(learning,** **thinking,** **problem** **solving)**	1. Demonstrate how to incorporate number and quantity activities into daily routines 2. Demonstrate how to incorporate early literacy practice into daily routines	1. Watch Numbers, and Letters, and Reading Oh My! Module 2. Identify one routine where you can add numbers (counting items, more/less) into your daily routines 3. Watch *Easy Ways to Practice Number Identification* 4. Identify a favorite book your child may have, if you do not have books in your	• Course tutorial module • PowerPoint handout • Easy ways to practice number identification • ecta shared reading handout • Parent and Child Shared Reading video	• Think about some items or objects in your home that you can use work in numeracy activities (blocks, cars, figures, noodles, fruit snacks, etc.) • Think about ways you can target numbers or literacy in other environments (grocery store, park, backyard, • Take your child on a trip to your local library to sign up for a library card. • Libraries often have free literacy activities for young children, look online for a calendar of events that may be interesting to you or your child.

		home, take a trip to the public library or 5. ask your child's teacher for books). 6. Watch *Parent and Child Shared Reading* 7. Practice shared reading with your child. Follow their lead with the amount of time they are able to tolerate, increase time as appropriate.		
Domain 3 **Approaches to Play and Learning (emotional, behavioral, and cognitive self-regulation)**	1. Establish simple rules and routines in the home (ex. Putting away dishes, hanging up coat, etc.) 2. Demonstrate how to help your child transition from a preferred activity to a non-preferred activity	1. Watch The Importance of Rules and Routines Module 2. Watch *Helping Your Child With Routines at Home* 3. Pick one routine that would make the biggest difference in your child's life and practice implementing the routine 4. Watch *3 Ways to Help Your Child With Daily Transitions* 5. Determine if you will use an object	• Course tutorial module • PowerPoint handout • Helping Your Child With Routines At Home video • Helping your child with transitions	• Create a daily schedule for your child and family • Consult with your child's teacher or educational team on what type of schedule works best for your child in the school setting • Think about materials that you may need to develop an object or picture schedule • Identify rewards/reinforcers that your child can "work for"

		schedule or a picture schedule 6. Practice using transition cues during your new routine		
Domain 4 **Social and Emotional Development (creating and sustaining meaningful relationships with adults and children)**	1. Explain how to help your child identify their emotions 2. Demonstrate how to help your child self-regulate	1. Watch Little Person, Big Emotions! Module 2. Watch *Building Emotional Literacy in Preschoolers* video 3. Practice at least one emotional regulation skill with your child from the *On the 5's* pamphlet 4. Watch *Helping Toddlers Regulate Emotions* video	• Course tutorial module • PowerPoint handout • Building Emotional Literacy In Preschoolers • On the 5's pamphlet • Teaching your child to manage emotions • Role playing emotions • Helping Toddlers Regulate Emotions • Cookie Monster Practices Self-regulation • National Center for Pyramid Model Innovations	• Practice imitating emotions in the mirror with your child. Don't forget to label the emotions. • Look at books or videos depicting a variety of emotions. Talk about how the person in the book or video may be feeling. • Read through *On the 5's* identify which emotional regulation strategies may be useful for your child, practice one or two of the strategies while your child is regulated in order to familiarize them with the strategy. • Talk to your child's teacher about strategies that are successful for your child at school.

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| Domain 5 **Perceptual, Motor, and Physical Development (use of senses to gather and understand information, fine motor, gross motor, health, safety, and nutrition)** | 1. Identify a variety of activities that encourage hand strength
2. Identify a variety of ways to work on pre-writing and fine motor skills in daily activities | 1. Watch Encouraging Early Writing Skills Module
2. Establish one play or adaptive skill routine that promotes fine motor skills (ex. Dressing routine, building with blocks during play time)
3. Watch *The Seven Stages of Writing* video | • Course tutorial module
• PowerPoint handout
• Write right
• Fine motor and prewriting
• Seven Stages of Writing | • Identify activities or items in your home that promote handstrength. |

5/21/22

ECSE Home-
Based Learning
Modules

Introduction to Home-based
learning

1

Learning Objectives

+By the end of this module, you'll be able to do the following:
1. Define home-based learning
2. Explain the positive effects of family engagement on student outcomes
3. Define the term generalization

2

Adult Learning Activities

1. Watch Introduction to Home-based Learning Module
2. Watch video *Why Based Learning Should matter video*
3. Review your child's IEP goals and progress notes
4. Watch video *Gleaning Oral study video*
5. Identify one routine where you could incorporate home-based learning for your child

3

1

What is home-based learning?

Home-based learning in early childhood academics is typically defined of as early literacy and numeracy practices such as book reading, storytelling, counting activities and naming of shapes (Puccioni, 2018).

It can also include intellectually stimulating activities such as visiting museums and zoos.

4

Why is home-based learning important?

5

What is generalization?

Generalization is the ability to use skills that were previously learned in new situations and with new materials that were not taught

Example: A child who learned how to zip their jacket uses that knowledge to then zip their pants or their backpack

6

2

106

Importance of Home-based learning Scenario 1

- Becky is a three-year-old little girl who is receiving special education services under the category of NCD. Becky currently has approximately 100 words in her verbal vocabulary and has delays with some of her early learning skills. The speech-language pathologist that works with Becky, Ms. JoAnn, recently shared that Becky has begun to put two words together in speech sessions and in the ECSE classroom. Ms. JoAnn suggested that Becky's mother start trying to help Becky expand her utterance in the home.

7

Importance of Home-based Learning Scenario 2

- Theo is a 4 ½ year old boy who is receiving special education services under the disability of orthopedically impaired. He has been working at school with the physical therapist, Mr. Jones, on climbing stairs. Mr. Jones believes that Theo is ready to try climbing stairs in other locations as well. Mr. Jones talks to Theo's grandmother, his primary caregiver, about encouraging Theo to climb stairs at home as well. Mr. Jones suggested that Theo's grandma start by holding his hand and helping him climb a few stairs in their apartment building and increase the number of stairs as Theo becomes more confident with the activity.

8

It's Easier Than You May Think!

9

Some Easy Examples of Home-Based Learning Activities

- Identifying letters in print on items your find around the home (ex. "C" on the Cheerios box)
- Sorting items into categories as your put the groceries away (ex. fruits vs. vegetables)
- Counting the steps as you walk into your home
- Sorting fruit snacks by color
- Labeling pictures while looking at books together
- Talking about big and little as you have your child help you match socks (ex. Mommy's socks are big, your socks are little)

10

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11

4

ECSE Home-
Based Learning
Support
Modules

Behavior is Communication!

1

Learning Objectives

+By the end of this module, you'll be able to do the following:
1. Have a basic understanding of how to infer what your child
   is trying to communicate through their behavior
2. Identify how to use visuals to help your child communicate

2

Adult Learning Activities

- Watch Behavior is Communication module
- Watch video *Behavior is Communication*
- Watch video *on Your Child's Language Learning*
- Identify pictures or objects in your home that may be used
  to help your child communicate

3

1

What is my child trying to tell me?

- If a child has delays in communication, they will typically resort to behavior to communicate their message
- **ALL** behavior is communication

4

What's the purpose?

The reason or purpose why a child is demonstrating a behavior is called the function of the behavior

The function of a behavior can typically be placed into one of four categories

5

Behavior is Communication Scenario 1

- Mom tells her son Anthony, "It's time to take a bath!" In response Anthony runs over and hits mom. In this scenario, Anthony may be using his behavior to avoid a bath because he knows that mom will put him in time out for hitting. Or perhaps Anthony likes baths but right now he is watching his favorite TV show and doesn't want to transition to the bath. In either case, Anthony is using his behavior to avoid a task.

6

Behavior is Communication Scenario 2

- Dad is busy cooking supper for the family. Lucy walk up to dad with her favorite toy in her hands. Instead of using words to communicate her wants and needs, Lucy lets out a loud scream. Dad stops what he is doing and turns to see Lucy holding her toy. In this scenario Lucy is seeking attention from dad. She wants to play but may not have the words to let dad know.

7

Behavior is Communication Scenario 3

- Toby is a three-year-old boy who was out playing on the playground. Instead of swinging or going down the slide, Toby sits in the middle of the playgrounds and grabs handfuls of sand and watches it sift between his fingers. Mom tries to encourage Toby to use the playground equipment but, he ignores her and continues to watch the sand fall through his fingers. In this scenario, Toby is using his behavior to communicate that he likes the visual or physical sensory stimulation that he receives from the sand.

8

What should I do to help my child?

Figure out the function of your child's behavior

Provide your child a more appropriate way to communicate

- Object choices (ex. "Do you want orange juice or milk?" while holding the container for each)
- Picture choices (ex. Picture of Goldfish cracker vs. picture of fruit snacks)
- Verbal choices (ex. Do you want to play with blocks or do you want to play with the farm?)
- Model appropriate communication for the child

Reinforce verbal, visual, or gestural communication attempts

9

3

More About Visual Supports

10

Object

11

Symbol

12

4

Picture

13

Word

SOCK

14

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5

Slide 1

ECSE Home-Based Learning Modules

Numbers, and Letters, and Reading Oh My! Module

1

Slide 2

Learning Objectives

By the end of this module, you'll be able to do the following:

+ Demonstrate how to incorporate number and quantity activities into daily routines

+ Demonstrate how to incorporate early literacy practice into daily routines.

2

Slide 3

Adult Learning Activities

1. Watch Numbers and Letters, and Reading, Oh My! module.
2. Identify one routine where you can add numbers (eg.counting items, more/less) into your daily routines.
3. Watch video *Easy Way to Practice Number Identification*
4. Watch video *Fact and Fiction Early Reading*
5. Identify a favorite book your child may have
   a. If you do not have books in your home, take a trip to the library or ask your child's teacher about books
6. Practice shared reading with your child

3

1

The Importance of Early Literacy Numeracy and Literacy Exposure

Numbers for Preschool-age Children

Literacy is more than just learning letters and learning to read!

4

5

6

Literacy Scenario 1

Betsy is a 3 ½ year-old child. Her mother wants to work on book reading with Betsy, but she won't sit for a full story. To help with this, Betsy's mom decides to add a story to the bedtime routine. Betsy will already be in bed, so the chances of her staying put are higher. Betsy's mom also chose a short picture book to look at instead of a huge fairytale. Betsy and her mom sit together and look at the book. Betsy's mom describes the pictures to 'tell' the story instead of reading the story word for word. Betsy's mom let's Betsy point at pictures in the book while they read and names the pictures for Betsy. Once Betsy starts getting restless, mom ends the story and kisses her goodnight.

7

Literacy Scenario 2

Mohammed is a 4-year-old who loves to play an alphabet app on his tablet. Mohammed's teacher suggested to his father that the family work with Mohammed on identifying and labeling letters in other activities as well to help generalize the skill to other materials. Mohammed's parents decide that they are going to incorporate letter identification during their grocery shopping routine. While on a trip to the store, Mohammed's parents model identifying different letters on the food containers before they put them in the cart. For example, after picking up the box of Cheerios, Mohammed's mother pointed to the C and said, "look Mohammed, a C." As Mohammed became more familiar with the activity during shopping trips, his parents would ask him to label the letters they pointed to on the packaging.

8

Numeracy Scenario 1

Grayson is a 3-year-old little boy. His parents have decided that they'd like to work on numeracy skills with Grayson at home. During snack time, Grayson's parents want to practice ask him to give the "one", "one more" and "two" from a pile of snacks. Grayson's mother hold out her hand and asks Grayson can you give me one goldfish cracker? Grayson hands his mother one cracker. Mom eats the cracker and says "Yum, that was tasty. Can you give me two crackers now?" When Grayson hands mom a handful of four goldfish crackers, she says "Let's count the crackers, 1-2-3-4. You gave me four crackers. I want two." She then helps Grayson count and separate two crackers from the pile and restates "Grayson, give me two crackers". Grayson hands over the two crackers to his mother. Mom replies "Thanks! You gave me two crackers."

9

3

116

Important Things to Remember

10

Resources

11

ECSE Home-
Based Learning
Modules

The Importance of Rules and
Routines

1

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Learning Objectives

+By the end of this module, you'll be able to do the following:

1. Establish simple rules and routines in the home.

2. Demonstrate how to help your child transition from a preferred activity to a non-preferred activity.

2

_____
_____
_____
_____
_____
_____
_____

Adult Learning Activities

+ Watch The Importance of Rules and Routines module
+ Watch video *Helping your Child with Routines at home*
+ Pick one routine that would make the biggest difference in your child's life and practice implementing this routine.
  ○ Add new routines as your child becomes successful.
+ Read *Teaching your Child Predictable Behaviors* handout
+ Watch video *3 ways to help your Child with Daily Transitions*
+ Determine if an object or picture schedule would be helpful for your child.
+ Practice Using transition cues during your new routine.

3

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1

Importance of Rules and Routines

- Participating in family routines provide pathways to learning for children.
- Routines provide children predictable, repeatable, and a functional frame of reference to learn about the world (Romans et al., 2022).
- Routines teach children what to expect throughout their day (CDC, 2019).
- Rules let children know which behaviors are ok, and which are not
  - Rules help create structure
- Rules provide children boundaries and help them to feel safe

4

Implementing Rules and Routines

5

Examples of Routines

Preparing food
Meals
Clean up
Bath time
Bed time
Dressing
Diapering/toileting
Caring for pets
Play time
Book reading

6

What is a Transition?

Transitions are movement from one activity to another or from one place to another.

Transition Examples

7

Helping Your Child Transition (Martinelli, 2021)

8

Scenario 1

- Sophia is a 3-year-old child with autism. Her father, Bill, has noticed that Sophia struggles to transition from story time to bedtime each night. Each time, Sophia's father finishes a story she begins to cry. Sometimes it takes up to 5 stories before Sophia falls asleep. Sophia's father calls her teacher Mrs. Harry to ask for suggestions. Mrs. Harry shared that Sophia may be confused because her father is not consistent with the number of stories, he reads each night before bedtime. Mrs. Harry suggests that Sophia's father develop a consistent first/then schedule of first two stories, then sleep. This will help Sophia to understand the expectation and to predict what will happen next. Sophia's father tries Mrs. Harry's suggestion and creates Sophia a visual schedule with a picture of two books and a bed, He tells Sophia "first two books, then bed". After a few weeks of showing her the schedule and remaining consistent with the routine, Sophia's father notices that Sophia transitions to bed much easier.

9

3

Scenario 2

- Jacobi is a 4-year-old boy that struggles with transitions. His mother has noticed that whenever she asks Jacobi and his older brother to clean up the toy room before dinner, Jacobi will start yelling and throwing toys around the room. Jacobi's mother emails his ECSE teacher Ms. Cohen for ideas. Ms. Cohen shared that Jacobi always helps to clean up at school and that he will get busy cleaning as soon as he hears the clean-up song. Ms. Cohen suggests that Jacobi's mother use the same clean-up song as a transition cue for Jacobi. The next evening when it was time to clean up before dinner, Jacobi's mother played the clean up song and started picking up toys. After a few seconds, Jacobi also started cleaning up toys.

10

Resources

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11

4

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ECSE Home-Based Learning Modules

Little Person, Big Emotions!

1

_____
_____
_____
_____
_____
_____
_____
_____

Learning Objectives

+By the end of this module, you'll be able to do the following:

1. Explain how to teach your child identify and their emotions
2. Demonstrate how to help your child self-regulate

2

_____
_____
_____
_____
_____
_____
_____
_____

Adult Learning Activities

1. Watch Little Person, Big Emotions! module
2. Watch *Building Emotional Literacy in Preschoolers* video
3. Look through *On the 5's* pamphlet
   a. Practice at least one emotional regulation skill with your child from the on the 5's pamphlet
4. Watch *Helping Toddlers Regulate Emotions* video

3

_____
_____
_____
_____
_____
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_____

1

Teaching Your Child About Emotions

4

Self-Regulation

5

Dysregulation

- When a child has a large emotional reaction to a situation, it is called dysregulation
- Dysregulation may be described as a meltdown
- In some children, dysregulation may appear to come out of no where
  - The child may have a huge reaction to something or a situation
- In other children dysregulation seems to build in the child
- This is not the time to discuss what upset the child

6

2

Helping Your Child with Self-Regulation

7

Scenario 1

- It is time to get ready for bed and Nicole knows that she is in for a tantrum. Her son Toby hates to brush his teeth and his nightly meltdowns turn bedtime into a very stressful situation for both Nicole and Toby. Nicole has decided to start with a small part of the skill and build. She begins by having Toby put toothpaste on the toothbrush. She praises him and gives him a sticker for his chart when he does it without fussing. As Toby becomes used to this step over the course of the next few days and weeks, Nicole increases the expectation and has him put his toothbrush in his mouth. Again, she praises and rewards him when he does this step without fussing. Nicole continues to add steps until Toby can brush his teeth without a meltdown.

8

Scenario 2

- Manuel, a four-year-old boy, is trying to complete a shape sorter puzzle but is struggling to manipulate the pieces to line them up with the correct holes. Manuel is becoming very frustrated and eventually throws the shape sorter and starts crying. His father, Jaime, calmly intervenes saying "Manuel, I see that you are frustrated. Let's take some deep breaths." Jaime and Manuel practice "smelling the flowers" and "blowing up the balloon" for several breaths. After Jaime sees that Manuel is calm, he says "Come on Manuel, let's go pick-up your puzzle and I'll help you."

9

Resources

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10

4

5/21/22

ECSE Home-Based Learning Modules

Encouraging Early Writing

1

Learning Objectives

+By the end of this module, you'll be able to do the following:

1. Identify a variety of strategies that encourage hand strength needed for prewriting
2. Identify a variety of ways to work on prewriting and fine motor in skills in daily activities

2

Adult Learning Activities

1. Watch Encouraging Early Writing Skills Module
2. Establish one play or adaptive skill routine that promotes fine motor skills (ex. dressing routine, building with blocks during play)
3. Watch video *To See Beyond Writing*
4. Identify activities or objects within your home that promote hand strength.

3

1

Fine Motor

Fine motor skills are those skills that use the small muscles in the hands and wrists.

Fine motor skills are necessary for many other skills

- Getting dressed (zipping and buttoning)
- Eating with utensils
- Manipulating blocks and levers in the environment
- Picking up small items
- Writing and coloring
- Cutting with scissors
- Lacing shoes
- Brushing teeth
- Turning the pages in a book one at a time (Babby, n.d.)

4

Activities that help develop hand strength and fine motor skills

Squeezing Activities
- Squeezing Play-Doh
- Helping decorate cookies with gel tubes
- Squeezing the water out of sponges in the bathtub
- Spraying with a spray bottle

Pincer activities
- Peeling stickers off of a sticker page and putting them on paper
- Picking up dry beans, raisins, fruit snacks from a pile and putting them in a cup
- Pinching clothespins
- Picking up small items with tongs or tweezers

5

Additional Ideas and Suggestions to support your child's fine motor skills

Writing on a vertical surface helps to build upper body strength for your child
- Put a piece of paper on your fridge with magnets or tape and have your child draw on it before or after dinner
- You can also incorporate a vertical surface into other fine motor such as stickers or painting
- Using small pencils the size of a golf pencil helps the child with appropriate grip

You can make activities multisensory
- Such as writing in sand, flour or shaving cream with a pointer finger
- Using sidewalk chalk
- Painting on the sidewalk or wood fence with water on a sunny day

6

2

127

Prewriting Skill Basic Information

- Prewriting skills are the foundational skills that children need to allow them to be able to perform handwriting tasks.
- They include the following skills.
- Coping strokes
- Motor planning (the skill that allows us to remember and perform steps for an action)
- Crossing midline, (ex. Reaching for an item on your left with your right hand)
- Pencil grasp (how you hold your pencil)
- Upper body and hand strength.

7

The Importance of Hand Strength

8

Developmental Progression of Prewriting skills

Scribbling (between 16-24 months)

First imitating then copying vertical, horizontal, and circular line (24-36 months)

First imitating then copying a cross + (42-48 months)

Child begins to copy a square, X and a triangle (48 months +)

9

Scenario 1

Megan, 4½ years old, has been diagnosed with speech and language delays. She loves drawing and painting with her mother. They sit in their playroom together. They use crayons, markers, paints, and pens to create pictures that they hang around the room. "What are you drawing today?" Mom asks. "I draw a princess and a horse," Megan says, pointing to those figures on her page. "I'm drawing a castle," her mom says. "And look, I wrote castle here so everyone will know what it is." Megan examines the picture and then asks, "How you write princess?" "Listen to how it sounds," her mom says. "Ppp... ppp..." Together they listen for the sounds. Megan writes a P followed by a few more letters and marks above her princess. They do the same thing with the horse, the flowers, and the sun in the picture. "You worked hard on that," her mom says. "We'll hang that picture up right away." (CELL)

10

Scenario 2

Dante is a 3-year 9-month-old student who qualified for Early Childhood Special Education under Non-Categorical Delay. Dante's mother has noticed that when Dante colors he will switch from holding the crayon with his fingers to holding the crayon in his fist rather quickly. Dante is also frequently switching between his right hand and left hand while coloring. Dante's mother contacted his ECSE teacher, Mrs. Smith, who shared that Dante may be demonstrating some hand strength weakness. Since Dante loves water play, Mrs. Smith suggested that Dante's mother have Dante squeeze water out of clean sponges or spray the shower wall with a spray bottle filled with water during bath times. This would allow Dante to work on his hand strength during a daily routine and activities he finds highly reinforcing.

11

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12

Appendix H
Original Letter of Invitation to Participate

Dates Sent: 10/02/2021
                 10/12/2021

Dear Parent or Guardian,

You are being invited to participate in a research study conducted by Nicole Reybok, a University of North Dakota (UND) doctoral student in the Educational Practice and Leadership program. Her faculty advisor is Dr. Kristen Votava.

The purpose of this research is to identify possible barriers to home-based learning activities for students enrolled in the Grand Forks Public School District's Early Childhood Special Education (ECSE) program. Your participation in this research will be contributing to improvement of the GFPS ECSE program.

The research involves completing a brief online survey. The survey requests some demographic information. Demographic information is statistical information about participant's characteristics. After completing the demographic section, eleven survey questions will follow.

The online survey takes between 5-10 minutes to complete. You may skip any questions that you prefer not to answer. You may choose to discontinue completion of the survey at any time without any consequences.

Your participation in this study is completely voluntary and you have the right not to complete this survey. You will not be paid for being part of this research study. By clicking on the embedded link below and completing the survey, you are providing informed consent. Once the link is activated, participants are directed to the online survey in UND Qualtrics. If you have any questions feel free to contact me at nicole.reybok@und.edu.

Survey Link:
https://und.qualtrics.com/jfe/form/SV_6fe8ZXSLOmdsIh8

Sincerely,
Nicole Reybok

Date Sent: 3/20/2022

Dear Parent or Guardian

You are again being invited to participate in a research study conducted by Nicole Reybok, a University of North Dakota (UND) doctoral student in the Educational Practice and Leadership program. Her faculty advisor is Dr. Kristen Votava. If you have previously completed this survey, thank-you for your participation and you will not need to complete this survey again.

The purpose of this research is to identify possible barriers to home-based learning activities for students enrolled in the Grand Forks Public School District's Early Childhood Special Education (ECSE) program. Your participation in this research will provide valuable information that will contribute to the improvement of the GFPS ECSE program and its support of students and families.

The research involves completing a brief online survey. The survey requests some demographic information. Demographic information is statistical information about participant's characteristics. After completing the demographic section, eleven survey questions will follow.

The online survey takes between 5-10 minutes to complete. You may skip any questions that you prefer not to answer. You may choose to discontinue completion of the survey at any time without any consequences.

Your participation in this study is completely voluntary and you have the right not to complete this survey. You will not be paid for being part of this research study. By clicking on the embedded link below and completing the survey, you are providing informed consent. Once the link is activated, participants are directed to the online survey in UND Qualtrics. If you have any questions feel free to contact me at nicole.reybok@und.edu.

Survey Link:
https://und.qualtrics.com/jfe/form/SV_6fe8ZXSLOmdsIh8

Sincerely,
Nicole Reybok

Identifying Possible Barriers to Parent Involvement in ECSE

UNIVERSITY OF NORTH DAKOTA Institutional Review Board Study Information Sheet

Title of Project: Identifying Possible Barriers to Parent Home-Based Involvement With Students in Early Childhood Special Education

Principal Investigator: *Nicole Reybok,* nicole.reybok@ndus.edu

Advisor: *Dr. Kristen Votava, 701-777-5683,* kristen.Votava@und.edu

Purpose of the Study: The purpose of this research study is to investigate potential barriers to parent involvement in home-based learning activities for parents of students in the Early Childhood Special Education program in the Grand Forks Public Schools. Common barriers can affect parental involvement at a greater intensity if parents have a child with a disability. With the importance of parents' involvement in student educational outcomes, this study seeks to identify barriers to involvement and work to develop solutions to overcome these barriers. The study requires the use of human participants, in this case parents, as it is necessary for them to identify barriers that are currently affecting their home-based involvement in learning activities. In order for the identification of barriers to be accurate and trends in barriers to be identified, first-hand information from parents is required. Information gained from this study will be used to explore solutions to barriers effecting parent involvement in home-based learning activities with their children.

Procedures to be followed: You will be asked to complete an eleven-item survey. Ten survey items will utilize a 6-point Likert scale. One survey item will be an open-ended question where you will be asked to type your answer.

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

Benefits: The benefit of this study is the improvement of the Grand Forks Public Schools Early Childhood Special Education Program. In addition, this study will contribute to the body of literature on the subject of parental involvement.

Duration: The survey will take participants between 5-10 minutes to complete.

Statement of Confidentiality: The survey does not ask for any information that would identify who the responses belong to. Therefore, your responses are recorded anonymously. If this research is published, no information that would identify you will be included since your name is in no way linked to your responses. All survey responses that we receive will be treated confidentially and stored on a secure server. However, given that the surveys can be completed from any computer (e.g., personal, work, school), we are unable to guarantee the security of the computer on which you choose to enter your responses. As a participant in our study, we want you to be aware that certain "key logging" software programs exist that can be used to track or capture data that you enter and/or websites that you visit.

Right to Ask Questions: The researcher conducting this study is Nicole Reybok under the supervision of her research advisor, Dr. Kristen Votava. You may ask any questions you have now. If you later have questions, concerns, or complaints about the research please contact Nicole Reybok at nicole.reybok@ndus.edu or Dr. Kristen Votava at (701) 777-5683 during the day. If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at (701) 777-4279 or UND.irb@UND.edu. You may contact the UND IRB with problems, complaints, or concerns about the research.

Please contact the UND IRB if you cannot reach research staff, or you wish to talk with someone who is an informed individual who is independent of the research team. General information about being a research subject can be found on the Institutional Review Board website "Information for Research Participants" http://und.edu/research/resources/human-subjects/research-participants.html

Compensation: You will not receive compensation for your participation.

Voluntary Participation: You do not have to participate in this research. You can stop your participation at any time. You may refuse to participate or choose to discontinue participation at any time without losing any benefits to which you are otherwise entitled. You do not have to answer any questions you do not want to answer. You must be 18 years of age or older to participate in this research study. Completion of the survey implies that you have read the information in this form and consent to participate in the research. Please keep this form for your records or future reference.

_____

ETH What is your ethnicity?

○ Hispanic or Latinx (1)

○ American Indian or Native Alaskan (2)

○ Pacific Islander or Native Hawaiian (3)

○ White (4)

○ Asian (5)

○ Black or African American (6)

○ Other (7)

- -

TCH Who has the primary responsibility for working with the education needs of your child?

○ Mom (1)

○ Dad (2)

○ Both (3)

○ Sibling (4)

○ Other (please explain) (5) _____

- -

ED LVL Education Level

○ Some high school (1)

○ High School graduate (2)

○ Some College (3)

○ College graduate (4)

DIS Child's primary disability

○ Autism (1)

○ Deaf-Blindness (2)

○ Deafness (3)

○ Emotional Disturbance (4)

○ Hearing Impairment (5)

○ Intellectual Disability (6)

○ Multiple Disabilities (7)

○ Non-Categorical Delay (8)

○ Other Health Impairment (9)

○ Specific Learning Disability (10)

○ Speech-Language Impairment (11)

○ Traumatic Brain Injury (12)

○ Visual Impairment (13)

NUM CHLD What is the number of children ages 0-18 that reside in your home?

_____

DISCR The following 11 item survey asks questions about possible barriers to parental-involvement in home-based learning activities.

Please respond to each question using the scale below (for each question, select the number that best reflects your response). The survey should take participants between 5-10 minutes to complete. Please answer openly and honestly, there are no right or wrong answers.

Response Format: 1 = *Strongly Disagree*; 2 = *Disagree*; 3 = *Slightly Disagree*;
4 = *Slightly Agree*; 5 = *Agree*; 6 = *Agree Very Strongly*.

Q1 Please indicate how much you AGREE or DISAGREE with each of the following statements with regard to the current school year.

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Slightly Agree (4)	Agree (5)	Agree Very Strongly (6)
I have enough time to help my child with learning activities at home related to their IEP goals. (1)	○	○	○	○	○	○
I have enough energy to help my child with learning activities at home related to their IEP goals. (2)	○	○	○	○	○	○

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Slightly Agree (4)	Agree (5)	Agree Very Strongly (6)
I have the subject knowledge to support my child with learning activities at home related to my child's IEP goals. (3)	◯	◯	◯	◯	◯	◯
I feel successful about my efforts to help my child learn at home. (4)	◯	◯	◯	◯	◯	◯
Teachers at my child's school are collaborative when they discuss my child with me. (5)	◯	◯	◯	◯	◯	◯
Teachers at my child's school treat me as an equal partner in my child's education. (6)	◯	◯	◯	◯	◯	◯
The teachers my child's school regularly (at least one time a month or more) keep me informed about my child's progress in school. (7)	◯	◯	◯	◯	◯	◯
The teachers my child's school regularly (at least one time a month or more) share ways that I can support my child's learning at home. (8)	◯	◯	◯	◯	◯	◯

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Slightly Agree (4)	Agree (5)	Agree Very Strongly (6)
The teachers at my child's school regularly (at least one time a month or more) recommend activities that are representative of our home culture. (9)	◯	◯	◯	◯	◯	◯
Information about my child is shared with me in language that I can understand. (10)	◯	◯	◯	◯	◯	◯

Q2 Please discuss any other barriers to home-based involvement not addressed

_____

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