EXPERIENCES AND PERCEPTIONS OF PARENTS OF YOUTH WITH DISABILITIES TOWARD SCHOOL-BASED PARENT ENGAGEMENT STRATEGIES

by

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ABSTRACT

WEN-HSUAN CHANG. Experiences and Perceptions of Parents of Youth with Disabilities Toward School-based Parent Engagement Strategies. (Under the direction of DR. YA-YU LO)

Youth with disabilities continue to show poor in-school and post-school outcomes. Parent engagement remains as one key component to bring about positive outcomes in youth with disabilities. Despite schools' widely adapted strategies on parent engagement, parent perceptions on various parent engagement strategies is largely unknown. The purposes of this dissertation were (a) to identify parents' experiences and perceptions on the school-based parent engagement practices in secondary transition, and (b) to understand the facilitators and barriers of parent engagement strategies for engaging parents of youth with disabilities. Using a nonprobability snowball sampling, this cross-sectional mixed-method survey study included 642 parents of youth with disabilities (ages 14-21) across the United States. Each parent reported their experience and perceived helpfulness toward each school-based parent engagement strategy, on a 5-point Likert scale, ranging from 1 (rarely experienced/not at all helpful) to 5 (always/extremely helpful). On average, participants reported they "sometimes" experienced each of the 23 strategies with the lowest rated strategies being (a) discussion of cultural values and beliefs and (b) connecting with service providers or agencies. Across the race/ethnicity groups, results revealed racial differences in the perceptions of parents of youth with disabilities in secondary transition on the 23 school-based parent engagement strategies across five domains: knowledge and skills, communication, collaboration, relationships, and culturally responsive practice. Compared to parents of non-Hispanic White, parents of color reported lower scores across all five school-based parent engagement domains for both experiences and perceived usefulness. To identify further thoughts regarding parents' perceptions toward parent engagement, deductive,

inductive, and thematic analysis of three open-ended questions uncovered four major themes pertaining to facilitators and barriers of parent engagement. The four themes included home-based factors, school-based factors, system-based factors, and existing situations (i.e., children's disabilities/characteristics, family's work, lack of transportation, time conflict, COVID-19, and weather). Implications for practice, limitations, and suggestions for future research are discussed.

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DEDICATION

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CHAPTER 1: INTRODUCTION

Statement of the Problem

Academic performance and post-school outcomes play a vital role in a youth's life. Yet, disparities in the in-school and post-school outcomes persist between youths with and without disabilities (National Center for Education Statistics [NCES], 2017, 2020). Youths with disabilities have evidently lagged behind their peers without disabilities in school performance such as proficiency in reading and mathematics. According to the National Assessment of Educational Progress (2020), the reading proficient rate for 12th grade students with disabilities (12%) was less than 1/3 of that for students without disabilities in the same grade level (40%); and a much bigger gap exists for math proficiency rate between youths with and without disabilities (6% vs. 26%). In addition, youths with disabilities also experience challenges in obtaining their high school diploma or an alternative credential (NCES, 2020). School dropout rate for youth ages 16 to 24 with disabilities (12.1%) was more than doubled the rate for students without disabilities (5.0%) (NCES, 2020).

The disproportionate in-school outcomes and dropout rates facing youths with disabilities also have corresponded to the post-school outcomes, such as employment, post-school education, and independent living, which in turn affects the quality of their adulthood life. Outcomes from the National Longitudinal Transition Study (NLTS, 2012) revealed that fewer youth with disabilities, than their peers without disabilities, were planning to obtain postsecondary education and jobs (94% vs. 76%), attain 4-year college degree (89% vs. 51%), have paid work experience (50% vs. 40%), and be expected to live independently by their parents (78% vs. 96%) (Lipscomb

et al., 2017). Effective interventions are essential to combat the poor in- and post-school outcomes for youth with disabilities.

Collaboration among Stakeholders

To address the poor in- and post-school outcomes of youth with disabilities, interagency collaboration through seamless transition across stakeholders has been identified as a potential solution (Mazzotti et al., 2016; Test et al., 2009). Wood and Gray (1991) defined collaboration as a process "when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms, and structures, to act or decide on issues related to that domain" (p. 146). Interagency collaboration happens between schools and local social service agencies, which addresses the collaboration between different organizations working formally toward a same goal (Lawson et al., 1999). Youth with disabilities receive multiple services across lifespan from special education teachers, professionals, and community services providers. Collaboration between agencies increases the service integration and the effectiveness of service outcomes, which has demonstrated better results for students on getting employed and attending post-school education (Anderson-Butcher & Ashton, 2004).

To capitalize on the importance of collaboration, policies and legislations exist that mandate certain levels of collaboration between professionals or service providers who work with youth with disabilities (Individuals with Disabilities Education Act [IDEA], 2004; The Every Student Succeeds Act [ESSA], 2015; Workforce Innovation & Opportunity Act [WIOA], 2014). For example, IDEA (2004) mandates important provisions related to collaboration among stakeholders to support youth's transition to adulthood. At the state level, IDEA requires each state to provide parent trainings and informational activities to promote positive outcomes for children with disabilities. IDEA also requires each state to submit performance plan and annual

performance report on the percentage of parents of children receiving special education services who report that schools facilitated parent involvement (Part B - Indicator 8). At the local level, IDEA requires schools to invite representatives from each agency to meetings and planning process to ensure seamless transition services for students' Individualized Education Program (IEP) meetings and decision making on students' transition plan (Wehman & Witting, 2009). Specifically, IDEA requires schools to actively involve parents of individuals with disabilities by providing IEP meeting invitations and interpreters during IEP meetings. When students reach the transition age (i.e., age 16), schools are required to invite parents to join transition planning development meeting, evaluation, and decision-making process (IDEA, 2004).

Additionally, WIOA (2014) mandates increased collaboration between state and local vocational rehabilitation services and educational agencies to provide youth with pre-employment transition services (e.g., job exploration, work-based learning, postsecondary education options). For instance, the U.S. Department of Labor under WIOA (https://www.dol.gov/agencies/eta/wioa/about) requires local areas to have coordinated planning to improve the alignment between workforce development programs and regional economic development strategies.

Legislations such as IDEA (2004) and WIOA (2014) provide an important basis for stakeholders to follow through and develop collaboration models to support youth with disabilities. In response to the mandates on increased collaboration to support youth with disabilities, researchers have developed various collaboration models to guide the planning and implementation. These collaboration models include Unified Plans of Support (UPS, Hunt et al., 2002), Family-centered Care (Bailey et al., 1992), Communication Interagency Relationships and Collaborative Linkages for Exceptional Students (CIRCLES, Aspel et al., 1999; Flower et

al., 2018; Povenmire-Kirk et al., 2015), and collaboration theory (Wood & Gray, 1991). The Unified Plans of Support (UPS, Hunt et al., 2002) focuses on collaboration improvement between general education teachers and special education teachers. Suggested strategies from this model include: identifying issues of the students' academic and social performances, developing supports for the identified issues, implementing supports collaboratively, and developing an accountability system. The Family-centered Care (Bailey et al., 1992) emphasizes the important roles of family. Specifically, it focuses on improving collaborations between stakeholders to support families of individuals. The CIRCLES model (Aspel et al., 1999; Flower et al., 2018; Povenmire-Kirk et al., 2015) was designed to address the barriers and facilitators to improve the collaboration between stakeholders (i.e., under community team level, school team level, and IEP team level) for youth with disabilities. Finally, the collaboration theory (Wood & Gray, 1991) represents a theoretically comprehensive view that can be used to examine roles in collaborations and process throughout the collaboration. Wood and Gray (1991) discussed the roles of convener in collaboration (e.g., having the ability to identify all relevant stakeholders, holding an unbiased approach to the problem domain), the complexity and uncertainty of environment (e.g., organizations can decrease environmental complexity by well planning, establish further benefits by investing in research study, or enrich solutions for specific problems by sharing information between stakeholders), and self-interests and collective interests (e.g., share self-interests and collective interests when collaboration occurs).

Within each of these models, parent involvement/engagement remains as one key component to bring about positive outcomes in youth with disabilities. Yet, barriers in parent engagement exist, which affect effective collaboration. In order to improve in- and post-school outcomes for youth with disabilities in secondary transition age, it is essential to identify current

models and frameworks for improving parent involvement/engagement for youth with disabilities.

Parent Involvement/Engagement in Secondary Transition of Special Education

Parent involvement and parent engagement have been identified and studied in the existing literature. Although some people regard these two terms as interchangeable, the distinctions between them exist. Shirley first articulated the distinction in 1997, where he explained "Parental involvement - as practiced in most schools and reflected in the research literature - avoids issue of power and assign parents a passive role in the maintenance of school culture. Parental engagement designates parents as citizens in the fullest sense - change agents who can transform urban schools and neighborhoods" (p. 73). Because the purpose of this dissertation is to identify facilitators and barriers to improve parents' proactive school participation, except the terms in the legislations, I will use the term "parent engagement" throughout the dissertation when referring to school/teacher behavior of proactively involving parents in their children's education related activities.

Parents of students with disabilities have been documented as being the most influential individuals in supporting students with disabilities at home and in the community throughout the students' lifespan (Fan & Chen, 2001; Henderson & Mapp 2002; Jeynes 2005, 2007; Pomerantz et al., 2007). In the field of secondary transition, studies identified parent involvement as a predicator for post-school employment (Rowe et al., 2015; Mazzotti et al., 2021; Rowe et al., 2021). Parents provide opportunities for their youth to learn from risks and to grow from mistakes, which helps to promote self-determination and independent decision-making skills for these youth with disabilities (Lindstrom et al., 2007). Fourqurean et al. (1991) also found that for

parents who participated in more IEP meetings during the 11th and 12th grade years of the students, their children were more likely to be engaged in post-school employment.

Despite the importance of parental role in secondary transition collaboration and the availability of different collaboration models, it remains a challenge for schools and districts to engage parents effectively. Factors that may contribute to the barriers of parent engagement include parent factors and teacher factors. In terms of parent factors, according to Bandura (1989), parents who have a relatively low confidence in helping their children may avoid assisting their children since they may not see the positive impact of their support on their children. Further, time constraints or insufficient resources, such as community supports and financial supports (Hirano et al., 2018; Keyes, 2002; Soutullo et al., 2016; Turney & Kao, 2009), can limit parents' availability to participate in school activities. Studies also found that the characteristics of children (e.g., severity of children's challenging behaviors and children's disability categories) have positive correlations with the levels of parent engagement (Adams & Christenson, 2000; Hirano et al., 2018; Hoover-Dempsey & Sandler, 2005; Sanders & Lewis, 2005; Simon, 2004).

In terms of teacher factors, teacher's characteristics, behaviors, and perceptions can influence the level of parent engagement. For example, teachers who are (a) lacking professional development or training for collaboration with parents (Ferrara & Ferrara, 2005; Ratcliff & Hunt, 2009), (b) having negative attitudes toward parent collaboration (Baum & Swick, 2007; De Gaetano, 2007) and assuming parents are not interested in their children's school activities (Dauber & Epstein, 1993; Epstein & Dauber, 1991), and (c) concerning parent engagement might weaken teachers' professional status (De-Caravalho, 2001; Sanders & Epstein, 2005) have all been barriers to parent engagement in school.

To address barriers to parent engagement, researchers have developed frameworks to leverage educational activities for students with and without disabilities. Four major frameworks for parent engagement exist. First, the Taxonomy for Transition Programming (Kohler et al., 2016) framework provides an overview of five critical components in secondary transition, which are family engagement, program structure, interagency collaboration, student development, and student-focused planning. Second, the Seven Principles of Partnership (Turnbull et al., 2015) focuses on parent engagement for the secondary transition of youth with and without disabilities. It presents seven principles, including communication, professional competence, respect, commitment, equality, advocacy, and trust. Third, the School-Community Partnership (Epstein et al., 2019) highlights the importance of providing services to students in a collaborative way with integrated resources from schools, families, and community. Finally, the Conceptual Model for Parent Involvement in Secondary Special Education (Hirano & Rowe, 2016; Hirano et al., 2018) offers a conceptual map for parent involvement targeting secondary transition in special education.

Based on these models and frameworks, strategies for engaging parents may be categorized in five domains (i.e., knowledge and skills, communication, collaboration, relationship, and culturally responsive practice) (Epstein et al., 2019; Gay, 2001; Grant & Ray, 2018; Hirano & Rowe, 2016; Hirano et al., 2018; Turnbull et al., 2015). *Knowledge and skills* refer to parents' understanding toward secondary transition that can affect their involvement in their children's educational activities (Hirano & Rowe, 2016; Hirano et al., 2018). Strategies to develop parents' knowledge and skills may include teachers preparing meetings with parents by reviewing meeting-topic-relevant information beforehand and sharing transition-related resources with parents (Geenen et al., 2005; Landmark et al., 2007; Margolis & Brannigan, 1986;

Rueda et al., 2005; Shapiro et al., 2004; Seitsinger & Brand, 2012). *Communication* refers to teachers' expression toward parents through words and impression (Chambers, 1998). Examples of strategies that may promote communication include teachers contacting parents to discuss their children's in-school performance, showing affection when greeting parents, using clarifying statements to ensure they understand accurately (e.g., "Am I understanding this correctly?") (Berger, 1991; Egan, 1990; Landmark et al., 2007). According to Bruner (1991), *collaboration* is "a process to reach goals that cannot be achieved acting singly (or, at a minimum, cannot be reached as efficiently). As a process collaboration is a means to an end, not an end in itself. The desired end is more comprehensive and appropriate services for families that improve family outcomes" (p. 6). Examples of strategies for promoting collaboration include teachers inviting agency representative and parents to attend students' meeting (Povenmire-Kirk et al., 2015) using Communication Interagency Relationships and Collaborative Linkages for Exceptional Students (CIRCLES). *Relationship* can be regarded as trust between teachers and parents (Dunst et al., 1992), which can be seen as "a generalized expectancy held by an individual that the word, promise, or statement of another individual can be relied upon" (Rotter, 1980, p. 651). Examples of strategies that may build relationship are teachers helping parents feel comfortable at school through caring small talks, focusing on parents' hopes and concerns, and keeping their words they have promised (Margolis & Brannigan, 1986). Finally, *culturally responsive practice* is, "the use of cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them" (Gay, 2010, p. 31). Examples of culturally responsive practices for engaging parents include teachers identifying citizenship or connections with relevant local social service agencies for culturally minority families (Povenmire-Kirk et al., 2010).

Despite available strategies for engaging parents in the literature, most of these strategies were based on research for individuals without disabilities or services for families of younger children with disabilities (e.g., family-center instruction for early intervention). Limited existing information focuses on parent engagement strategies in secondary transition for families of youth with disabilities (Hirano & Rowe, 2016; Hirano et al., 2018), indicating an area for future research.

When promoting parent engagement for families of youth with disabilities, it is important to consider parents' beliefs and perceptions. According to Hoover-Dempsey and Sandler (1997), parents' beliefs and perceptions can affect their willingness to be involved and engaged in their children's education activities. For instance, studies indicated that parents' cultural, educational, and socioeconomic backgrounds influenced the ways they perceived their involvement/engagement, and these factors included parents' level of education (Green et al., 2007), family circumstances (Catsambis, 2001; Green et al., 2007), psychological resources (Eccles & Harold, 1993), culture (Chrispeels & Rivero, 2001), and socioeconomic status (Lareau, 2003).

Despite the important roles of parent beliefs and perceptions in educational involvement (Boone, 1992; Eccles & Harold, 1993; Hoover-Dempsey & Sandler, 1997), prior literature on parent engagement in secondary transition educational activities has mainly focused on the strategies of school invitations (Epstein et al., 2019; 1980). Hirano et al. (2016) identified eight-factor solution for involving parents of youth with disabilities, which included (a) Parent Expectations for the Future, (b) General School Invitations, (c) Role Construction, (d) Perceptions of Time and Energy, (e) Knowledge, (f) Skills and Self-efficacy, (g) Specific Child Invitations, (h) Specific Teacher Invitations. In another study, Hirano et al. (2018) identified

barriers and facilitators to family engagement among parents of youth with disabilities through 22 qualitative studies. As a result, Hirano and colleagues (2018) suggested three categories of barriers: family barriers (i.e., stress and lack of resources, lack of cultural capital affecting self-efficacy, poor transition programming), school barriers (i.e., racism and discrimination, schools preventing families from becoming empowered), and adult service barriers (i.e., low expectations and deficit-based view of students, lack of viable post-school options, difficulty navigating the adult system, lack of respect and value of caregivers). Although parents' perceptions and beliefs are important factors in a conceptual model of secondary school and transition planning (Hirano et al., 2016), limited studies have addressed how parents perceived such invitations and limited studies have identified the relationships between parent characteristics, parent perceptions, and parent engagement strategies (Epstein et al., 2019; Hirano & Rowe, 2016; Hirano et al., 2018; Turnbull et al., 2015). Understanding how parents' attitudes, beliefs, and perceptions are associated with parent engagement is essential to develop tailored parent engagement strategies based on parents' perspectives (Hoover-Dempsey et al., 2005).

Statement of Purposes and Research Questions

This dissertation aims to explore the perceptions of parents of youth with disabilities in secondary transition on school-based parent engagement strategies and the relationships between the parents' perceptions and their demographic information (e.g., race, ethnicity, gender, education, socioeconomic status) using a researcher-developed survey based on existing parent engagement checklists and literatures. The survey instrument was developed based on: (a) the four framework/models for engaging parents (i.e., Taxonomy for Transition Programming, Kohler et al., 2016; Seven Principles of Partnership, Turnbull et al., 2015; School-Community Partnership, Epstein et al., 2019; Conceptual Model for Parent Involvement in Secondary Special

Education, Hirano & Rowe, 2016; Hirano et al., 2018), and (b) existing parent engagement checklists and literatures (Epstein et al., 2019; Hirano & Rowe, 2016; Hirano et al., 2018; Morningstar et al., 2012; Morningstar et al., 2016; Turnbull et al., 2015).

In addition to identifying parents' experiences and perceptions toward each strategy, understanding the potential underlining facilitators and barriers is a critical step to improve school-based parent engagement strategies. There are four research questions for this study.

1. How have parents of youth with disabilities been exposed to each of the school-based practices in secondary transition?

2. What are the parents' perceptions on each of the school-based practices in secondary transition?

3. What are the relationships between parents' demographic background and parents' experiences/perceptions of school-based practices?

4. What are the facilitators and barriers of parent engagement strategies for engaging parents of youth with disabilities?

Significance and Contributions

This study will contribute to the literature in several ways. First, this study will attempt to obtain a national representative data to identify relationships between parents' characteristics (e.g., race, ethnicity, gender, residence) and parents' perceptions on each of the identified parent engagement strategies. Second, this study will be the first to identify specific factors that might have limited engagement in school-based activities from parents of youth with disabilities who reported not participating in their children's educational activities. Finally, this study will likely extend existing knowledge on parent engagement in secondary transition through (a) identifying strategies that potentially improve parent engagement for parents from diverse backgrounds,

which will add to the current knowledge on parent motivators to be involved in school activities (Hirano & Rowe, 2016; Hirano et al., 2018) and (b) identifying potential barriers in parent engagement for parents from diverse backgrounds, which will contribute to the current knowledge on parent engagement facilitators in the general education classrooms and children in early ages (Epstein et al., 2019; Turnbull et al., 2015).

Delimitations

There are four delimitations that could affect the findings or analysis of the study results. First, the sample data may have a disproportionate representation of ethnicity, which may affect the generalization of the study results to the population. To address the potential selection bias, I will use the national representative study (NLTS) results data (i.e., parents and students' demographic data) to compare with the parent participants in this study in terms of their demographic representation. Second, this study involves the use of a cross-sectional design with a proposed 178 responses from an online survey, which means I, as the primary investigator, will not be able to track the changes of the parents' perception over time. Third, this study will be based on parents' self-report. It is challenging to confirm the results with other data or information (e.g., teachers' perception, students' perception, or observation from others). Fourth, the survey will be shared online in English only, which will likely exclude parents/caregivers (a) who may not have access to a computer, (b) who may not be literate, or (c) who may not be proficient in English.

Definition of Terms

The following terms are used frequently in this dissertation and will be important to understand within the context of this study. Definitions of these terms are as follows.

Collaboration

Collaboration refers to more than two agencies working together and sharing responsibilities to achieve agreed goals (Gardner, 1999; Lawson & Barkdull, 1999).

Collaborative Teaming

Collaborative teaming is "shar[ing] knowledge and skills to generate new and novel methods for individualizing learning, without the need for dual systems of general and special education" (Villa & Thousand, 2000, p. 255). The process of collaborative teaming includes regular interactions, ongoing monitoring, and clear agreed responsibilities for each team member (Nevin et al., 1990; Salisbury et al., 1997; Thousand & Villa, 1992; West & Idol, 1990).

Communication Interagency Relationships and Collaborative Linkages for Exceptional Students (CIRCLES)

CIRCLES is a transition-planning service delivery model designed to address the barriers and improve the collaboration between stakeholders for youth with disabilities (Aspel et al., 1999; Flower et al., 2018; Povenmire-Kirk et al., 2015).

Conceptual Model for Parent Involvement in Secondary Special Education

Conceptual Model for Parent Involvement in Secondary Special Education is a conceptual framework for parent involvement targeting secondary transition in special education (Hirano & Rowe, 2016; Hirano et al., 2018). This framework includes three main factors: school values and beliefs, school interventions, and expanded parent roles in secondary special education and transition.

Ecological/Biological Theory

This theory was first introduced by Bronfenbrenner in 1974, which emphasized a child's environment in five relationship layers: microsystem, mesosystem, exosystem, macrosystem, and

chronosystem, with the child being the core. Each of the five layers could not be separated and they influence each other.

Every Student Succeeds Act

The Every Student Succeeds Act (ESSA, 2015) is a legislation which mandates and provides incentives to stakeholders who work with students and who collaborate to improve students' in- and post-school success (White House ESSA Fact Sheet, 2015). Subsequently, ESSA requires schools not only to include parents but also to create their capacity to involve parents.

Family-centered Care

This model is defined as professionals working collaboratively and equally with the families of children with needs in the children's natural environment. Family-centered Care has been used mainly to support families of children age between 0 and 4 years old (Bailey et al., 1992; Rosen-baum et al., 1998).

Five Domains of Parent Engagement Strategy

Based on the four frameworks for engaging parents (i.e., Taxonomy for Transition Programming, Seven Principles of Partnership, School-Community Partnerships, and Conceptual Model for Parent Involvement in Secondary Special Education), strategies for promoting parent engagement in secondary transition may be categorized into five domains, including (a) knowledge and skills (Hirano & Rowe, 2016); (b) communication (Epstein et al., 2019; Turnbull et al., 2015); (c) collaboration (Epstein et al., 2019); (d) relationship (Epstein et al., 2019; Turnbull et al., 2015); and (e) culturally responsive practice (Gay 2001; Turnbull et al., 2015). These five domains correspond to areas of strategies for improving parent engagement.

Individuals with Disabilities Education Act

The Individuals with Disabilities Education Act (IDEA, 2004) is a legislation that mandates important provisions related to collaboration among stakeholders, such as mandating interagency collaboration to support transition to adulthood and requiring schools to actively involve parents of individuals with disabilities. In addition to collaboration, states are required to provide parent trainings and informational activities to support positive outcomes for students with disabilities (IDEA, 2004).

Interagency Collaboration

Interagency collaboration refers to different organizations working formally toward a same goal. This collaboration category happens between schools and local social service agencies (Lawson et al., 1999).

National Longitudinal Transition Study-2

The National Longitudinal Transition Study-2 (NLTS2) is a national survey study that examined the secondary and post-school experiences of youth with disabilities. The participants included 10,144 youth with and without an IEP in the United States from grades 7 through 12 and 11,853 parents. Results from this national survey study revealed the higher educational involvement from parents, the higher employment, independent living, and post-school education rates of youth with disabilities.

No Child Left Behind Act

The No Child Left Behind Act (NCLB, 2001) is a legislation that first mandated parents must be involved in plan development to improve student's academic achievement and school performance (NCLB, Sec. 118). It also mandates schools to schedule meeting time that could accommodate parents' availability.

Parent Engagement

"Parental engagement designates parents as citizens in the fullest sense - change agents who can transform urban schools and neighborhoods" (Shirley, 1997, p. 73).

Parent Involvement

"Parental involvement - as practiced in most schools and reflected in the research literature - avoids issue of power and assign parents a passive role in the maintenance of school culture" (Shirley, 1997, p. 73).

Parents' Perceptions/Beliefs

Parents' perceptions/beliefs refer to what the parents perceive their capacity in supporting their children, how their children perform in schools, and how schools and teachers can support their children (Hoover-Dempsey & Sandler, 1997).

School-Community Partnerships

School-community partnerships provide services to students in a collaborative way with integrated resources from schools, families, and the community (Zelin et al., 2001).

Seven Principles of Partnership

This framework focuses on parent engagement for the secondary transition of youth with and without disabilities (Turnbull et al., 2015). The seven principles include: (a) communication, (b) professional competence, (c) respect, (d) commitment, (e) equality, (f) advocacy, and (g) trust.

Secondary Transition

Secondary transition refers to the process a student goes through as they move from high school to the next step, including postsecondary education, employment, and independent living (IDEA, 2004).

Taxonomy for Transition Programming

Kohler et al. (2016) developed this framework to provide an overview of critical components in secondary transition. The Taxonomy for Transition Programming includes five essential domains (i.e., family engagement, program structure, interagency collaboration, student development, and student-focused planning to cultivate a positive and smooth secondary transition). This framework provides a fundamental picture of secondary transition components, but the outcomes for parent engagement were not explicitly discussed or defined.

Theory of Overlapping Spheres of Influence

This theory was introduced by Epstein in 1987, which identifies three spheres (i.e., family, school, and local community) and overlapping spheres (i.e., partnership between the family, school, and local community). The degree of overlap is influenced by the experiences, philosophies, and practices of families, schools, and communities.

Unified Plans of Support

Unified Plans of Support (UPS) is a designed plan to improve collaboration between general education teachers and special education teachers to support students with disabilities in inclusion settings (Hunt et al., 2001, 2002). The collaborative problem solving in UPS consists of (a) identifying issues of the student's academic and social performances, (b) developing supports for the identified issues, (c) implementing supports collaboratively, and (d) developing an accountability system (Giangreco et al., 1994; Merritt & Culatta, 1998; Salisbury et al., 1997; West & Idol, 1990).

The Workforce Innovation and Opportunity Act

The Workforce Innovation and Opportunity Act (WIOA, 2014) is an act to help youth with disabilities to find and maintain jobs. It mandates increased collaboration between state and

local vocational rehabilitation services and educational agencies to provide youth with pre-employment transition services (e.g., job exploration, work-based learning, postsecondary education options).

CHAPTER 2: REVIEW OF LITERATURE

The purposes of this dissertation are (a) to understand how parents of youth with disabilities have been exposed to school-based parent engagement practices in secondary transition; (b) to understand parents' perceptions on the school-based parent engagement practices in secondary transition; (c) to identify the relationships between parents' demographic characteristics (e.g., ethnicity, race, gender) and their perceptions of school-based parent engagement practices; and (d) to identify the facilitators and barriers of parent engagement strategies for engaging parents of youth with disabilities. This chapter included a review of literature that provides the rationale and framework for this dissertation.

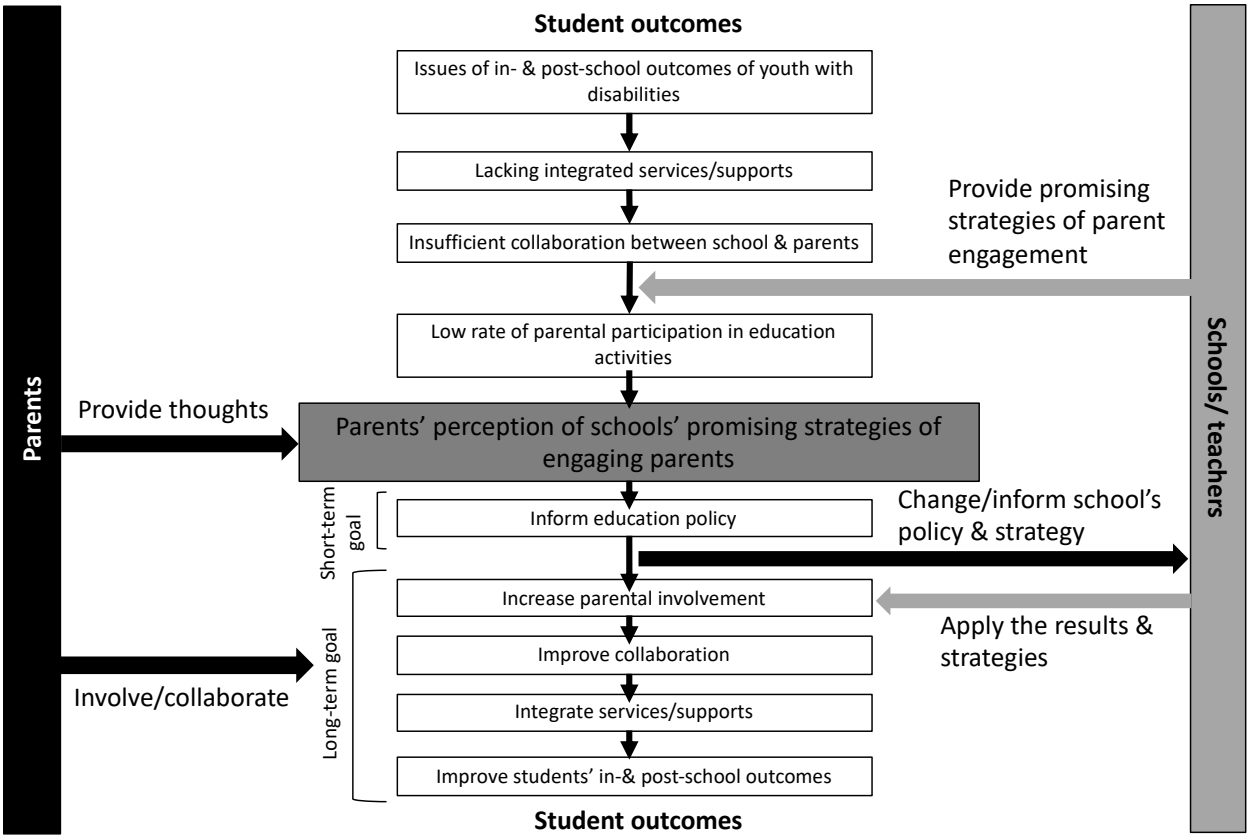
Students with disabilities show poor performance in school and after graduating from school. To improve the student outcomes of youth with disabilities, studies have identified interagency collaboration as a predictor of effective collaborations between essential stakeholders (Mazzotti et al., 2016; Test et al., 2009). Although many schools commit to providing strategies to engage parents of students with disabilities to improve equal partnership and collaboration (Ferrara & Ferrara, 2005; Ratcliff & Hunt, 2009), both parents and teachers reported low rate of parental participation or ineffective parent engagement strategies (Deslandes & Bertrand, 2005; Ratcliff & Hunt, 2009).

Figure 1 displays the logic model for this study. The model illustrates the relationships between factors (i.e., interagency collaboration, parent participation/involvement) that direct and indirectly affect the in- and post-school outcomes of youth with disabilities. In addition, this model shows the importance of collaboration between school and parents, and how parents'

perceptions could influence school-parent collaboration, all of which will eventually affect students' in- and post-school outcomes.

Figure 1

Logic Model



Based on the logic model shown in Figure 1, this chapter consisted of three sections that address (a) vulnerabilities of youth with disabilities facing in- and post-school outcomes, (b) the paucity of integrated services and the insufficiency of collaboration between schools and parents, and (c) a lack of parental participation in education activities. In section one, I will present local and national data showing the in- and post-school outcomes of students with disabilities in the

areas of education, independent living, and employment. In section two, I will define collaborations and identify current collaboration models in special education. In section three, I will define parental roles in special education and present parental engagement models/frameworks for parents of youth with disabilities, as well as the importance of exploring parents' perceptions on parental engagement strategies.

In- and Post-school Outcomes of Youth with Disabilities

Disparities in the in-school and post-school outcomes persist between youth with and without disabilities (NCES, 2017, 2020). Even with the evidence supporting the benefits from interagency collaboration and parent involvement, youth with disabilities still lag behind their peers without disabilities in multiple areas (Mazzotti et al., 2016; Test et al., 2009). According to the National Assessment of Educational Progress (2020), the reading proficient rate for 12th grade students with disabilities was less than 1/3 when compared to the proficiency rate for students without disabilities in the same grade level (i.e., 12% vs. 40%); and math proficient rate for 12th grade students with disabilities was less than 1/4 of the rate for students without disabilities (i.e., 6% vs. 26%). In addition to lagging behind in academic performance, youth with disabilities also experience challenges in obtaining their high school diploma or an alternative credential (NCES, 2020). According to the most current data from NCES (2020), school completion rate for youth ages 18 to 24 with disabilities was lower than their peers without disabilities (84.8% vs. 93.6%). School dropout rate for youth ages 16 to 24 with disabilities (12.1%) was more than double the rate for students without disabilities (5.0%) (NCES, 2020). These statistics indicate that when compared with peers without disabilities, youth with disabilities struggle more to complete high school and graduate with a high school or equivalent diploma (NCES, 2020).

The gap in student outcomes continues after youth depart schools in the areas of employment, post-school education, and independent living. According to the U.S. Bureau of Labor Statistics (2020), employment population rates for individuals with and without disabilities were 16.7% and 57.5%, respectively; and unemployment population rates between individuals with and without disabilities were 17.9% and 12.8%, respectively. Individuals with disabilities also experienced lower salary rates per hour than their peers without disabilities ($9.00 compared to $11.00; Newman et al., 2011). For post-school education, the rate of planning to attend a 4-year college for students with an Individualized Education Program (IEP) was 51% whereas the rate for students without an IEP was 80% (Lipscomb et al., 2017). Furthermore, the postsecondary education attainment rates for youth with and without an IEP were 76% and 94%, respectively (Lipscomb et al., 2017). For independent living, the rate of parents' expectations on individuals' capacity to live independently by age 30 for individuals with disabilities was 78%, compared to 96% for individuals without disabilities (U.S. Department of Labor, 2019).

Additional data also showed poor student outcomes for youth with disabilities. The National Longitudinal Transition Study (NLTS, 2012) was a national survey study of 10,144 youth with and without an IEP in the United States from grades 7 through 12 and 11,853 parents. Results from this national survey study reveal several points. First, youth with an IEP were more likely than their peers without an IEP to struggle academically (50% vs. 35%), yet less likely to receive some forms of school-based support (72% vs. 78%) (NLTS-2012, Lipscomb et al., 2017). With less support from school, parents of youth with disabilities reported higher percentages of helping their children's weekly homework (62%) and attending parent-teacher conference (84%) when compared to parents of youth without disabilities (54% and 65%)

(NLTS-2012, Lipscomb et al., 2017). Second, compared to their peers without disabilities, fewer youth with disabilities were planning to obtain postsecondary education and jobs (94% vs. 76%). Regarding a 4-year college degree attainment, the rates for youth with and without disabilities were 51% and 80%, respectively. Only 42% of youth with disabilities, compared to 70% of peers without disabilities, reported taking college entrance and placement tests. In addition, 40% of youth with an IEP reported having recent paid work experience, compared to 50% of youth without disabilities reporting having paid work experience. Finally, parents of youth with an IEP were less likely than other parents to anticipate that their children would live independently as adults (78% vs. 96%) (NLTS-2012, Lipscomb et al., 2017).

In sum, students with disabilities experience poor in- and post-school outcomes in the areas of academic achievement, post-secondary education, independent living, and employment. Interagency collaboration and parental involvement have been identified as predictors to improve in- and post-school outcomes for youth with disabilities (Mazzotti et al., 2016; Test et al., 2009). Specifically, collaborative transition planning between schools and parents plays a critical role for improving students' outcomes (Test et al., 2009). The following section will define the collaboration among stakeholders for students with disabilities and how the collaboration could be helpful to improve the students' in- and post-school outcomes.

Collaboration among Stakeholders

Youth with disabilities receive multiple services across lifespan in and out of schools. In school, the students may receive services from special education teachers and other professionals (e.g., school counselors, speech pathologists, occupation therapists, physical therapists). Outside of school, students may receive community services and supports, such as transportations and mental health services. In support of students with disabilities in secondary transition, effective

collaborations among different stakeholders is critical to ensure students receive seamless services and integrated supports to maximize their in-school and post-school outcomes (Mazzotti et al., 2016).

Definition

Collaboration, in general, refers to more than two agencies working together and sharing responsibilities to achieve agreed goals (Gardner, 1999; Lawson & Barkdull, 1999). Collaborative teaming is another term often used in the field of special education, which has been defined as "shar[ing] knowledge and skills to generate new and novel methods for individualizing learning, without the need for dual systems of general and special education" (Villa & Thousand, 2000, p. 255). The process of collaborative teaming includes regular interactions, ongoing monitoring, and clear agreed responsibilities for each team member (Nevin et al., 1990; Salisbury et al., 1997; Thousand & Villa, 1992; West & Idol, 1990).

Based on the philosophy and interaction strategies, Lawson et al. (1999) identified five categories of collaboration: intraorganizational, interagency, interprofessional, community collaboration, and family-centered that can address students' needs comprehensively in school settings. *Intraorganizational collaboration* refers to parallel relationships between in-school professionals (e.g., teachers, school psychologists). Although the professionals may work to help the same group of students, each professional serves the individuals separately (Lawson et al., 1999). *Interagency collaboration* refers to different organizations working formally toward the same goals. This collaboration category happens between schools and local social service agencies. For instance, community counseling centers provide counseling to students and their families to improve their mental health status. *Interprofessional collaboration* refers to multiple people from different professional backgrounds working together to support students to achieve

the same goals. This collaboration focuses on integrating different professionals' opinions and services to support students more effectively (Lawson et al., 1999). *Community collaboration* refers to multiple community stakeholders (e.g., parents, students, community leaders, city government, health providers, business people, religious institutions) working together to support students' outcomes. Finally, *family-centered collaboration* refers to family (especially parents) being placed in the decision-making position for their children. For this category, students and their family are regarded as equal partners who have knowledge about the students (Lawson et al., 1999). Family-centered collaboration emphasizes on the power and strength of each family and encourages family to be proactively participate in students' educational activities, such as participating in teacher-parent conferences, developing educational plans, and conducting ongoing evaluation (Lawson et al., 1999). Core elements of family-centered collaboration include honoring families' racial, ethnic, cultural, and socioeconomic diversity, and recognizing family strengths and their copying strategies (Lawson et al., 1999).

According to Anderson-Butcher and Ashton (2004), all collaboration categories listed above are interrelated in that every movement from any of the categories will affect one another. For example, when parents and students feel welcomed and supported to engage in school activities, they tend to participate more. When the parents and students are more willing to share their needs and thoughts, students' services could be designed and delivered more effectively (Anderson-Butcher & Ashton, 2004; Lawson et al., 1999). For students with disabilities, collaboration between interorganizations and intraorganizations increases the service integrations and the effectiveness of service outcomes, which has demonstrated better results for students on getting employment and attending post-school education (Anderson-Butcher & Ashton, 2004).

Theories of Collaboration

Back in 1991, Wood and Gray proposed an interorganizational collaboration theory to explain collaborative behaviors. Wood and Gray (1991) defined collaboration as a process "when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms, and structures, to act or decide on issues related to that domain" (p.146). In the collaboration theory, Wood and Gray discussed the roles of convener in collaboration (e.g., having the ability to identify all relevant stakeholders, holding an unbiased approach to the problem domain), the complexity and uncertainty of environment (e.g., organizations can decrease environmental complexity by well planning, establish further benefits by investing in research study, or enrich solutions for specific problems by sharing information between stakeholders), and self-interests and collective interests (e.g., share self-interests and collective interests when collaboration occurs). Wood and Gray provided a theoretically comprehensive view that can be used to examine the roles in collaborations and the process throughout the collaboration.

In addition to the work from Wood and Gray (1991), there are two other collaboration-related theories. Ecological/Biological Theory and Theory of Overlapping Spheres of Influence below suggests the relationships among parent, school, and student. Understanding the theories may allow for more effective planning for collaboration to achieve optimal student outcomes.

Ecological/Biological Theory

Bronfenbrenner (1974) first introduced Ecological/Biological Theory, which emphasized a child's environment in five relationship layers: microsystem, mesosystem, exosystem, macrosystem, and chronosystem, with the child being the core. The microsystem is the closest one to the child and it has the direct contact with the environment and people such as parents at

home and teachers at school. The mesosystem is the second closest layer, which represents the connections between different factors within the first layer (e.g., connections between the parents and teachers). The exosystem is the third layer. The factors in this layer can affect the child but indirectly. For example, the change in the child's parents' working load can affect the time parents have to supervise the child's homework. The macrosystem is the fourth layer. This layer comprises cultural values, customs, and laws. The chronosystem is the last outer layer, which encompasses the dimension of time that relates to the child's environments. For instance, as the child grows, the reactions toward their environments can be varied. Bronfenbrenner indicated that the five layers could not be separated and they influence each other. According to the ecological/biological theory, special education teachers have to identify how each layer affects their students to better meet the needs of students with disabilities. For youth with disabilities from diverse cultural backgrounds, it is critical for the teachers to identify and be aware of how the cultures may influence students' performances (Bronfenbrenner, 1974).

Theory of Overlapping Spheres of Influence

Another theory depicts the importance of students' surroundings is the Theory of Overlapping Spheres of Influence, which was introduced by Epstein in 1987. This theory identifies three spheres (i.e., family, school, and local community) and overlapping spheres (i.e., partnership between the family, school, and local community). The degree of overlap is influenced by the experiences, philosophies, and practices of families, schools, and communities. In the area of secondary transition in special education, this theory addresses the importance of partnership between the three spheres, which indicates the need to share responsibilities between families, schools, and the community to improve youth's in- and post-school outcomes.

In both of the theories, family, school, and community are all considered essential when promoting the educational outcomes of students. Therefore, it is critical to establish effective collaboration among stakeholders.

Policies and Legislations

To capitalize on the importance of collaboration, policies and legislations have been implemented to mandate certain levels of collaboration between professionals or service providers who work with youth with disabilities (ESSA, 2015; IDEA, 2004; NCLB, 2001; WIOA, 2014). The policies and legislations below include No Child Left Behind (NCLB), Individuals with Disabilities Education Act (IDEA), The Workforce Innovation and Opportunity Act (WIOA), and The Every Student Succeeds Act (ESSA).

NCLB. NCLB (2001) first mandated parents must be involved in plan development to improve student's academic achievement and school performance (NCLB, Sec. 118). NCLB mandates schools to schedule meeting time based on parents' availability.

IDEA. IDEA (2004) mandates important provisions related to collaboration among stakeholders. First, IDEA requires interagency collaboration, which mandates agencies to support transition to adulthood. For instance, for students' IEP meetings and decision making on students' transition plan, IDEA mandates schools to invite representatives from each agency to the meetings and to be involved in the planning process to ensure seamless transition services (Wehman & Witting, 2009). Second, IDEA requires schools to actively involve parents of individuals with disabilities, such as providing meeting invitations and interpreters during IEP meetings. Third, IDEA mandates schools to provide supports to parents, such as trainings and informational activities, to increase their knowledge and skills to improve their children's outcomes. Lastly, IDEA requires each state to submit performance plan and annual performance

report on the percentage of parents of children receiving special education services who report that schools facilitated parent involvement (Part B - Indicator 8).

WIOA. To help youth with disabilities to find and maintain jobs, WIOA (2014) mandates increased collaboration between state and local vocational rehabilitation services and educational agencies to provide youth with pre-employment transition services (e.g., job exploration, work-based learning, postsecondary education options). For instance, the U. S. Department of Labor under WIOA (https://www.dol.gov/agencies/eta/wioa/about) requires local areas to have coordinated planning to improve the alignment between workforce development programs and regional economic development strategies.

ESSA. ESSA (2015) mandates and provides incentives to stakeholders who work with students and who collaborate to improve students' in- and post-school success (White House ESSA Fact Sheet, 2015). Subsequently, ESSA mandates local educational agencies (LEAs) to improve parent engagement through conducting capacity building for schools, identifying, implementing, and evaluating parent engagement strategies. Each school served under Title I, Part A should jointly develop partnership with parents for the children under Title I, Part A. The school-parent partnership should include the school's responsibility to support the children and address the importance of communication between teachers and parents on an ongoing basis (e.g., report students' progress frequently, have ongoing two-way communication).

In sum, collaboration among stakeholders provides seamless services for youth with disabilities. Policies and legislations authorize rights and responsibilities in terms of interagency collaboration for improving the wellbeing of youth with disabilities. These legislations are essential for stakeholders to follow through and develop collaboration models to support youth with disabilities.

Models for Promoting Collaboration

Despite the mandates from various legislations, lack of structured planning and ongoing effort can hinder the results of collaboration. According to Hunt et al. (2013), effective collaborative teaming involves "regular, positive face-to-face interactions, a structure for addressing issues, performance and monitoring, and clear individual accountability for agreed-upon responsibilities" (p. 317). To promote effective collaboration, researchers have developed collaboration models to guide the planning and implementation.

Unified Plans of Support. The first collaboration model is Unified Plans of Support (UPS), which is intended to improve collaboration between general education teachers and special education teachers to support students with disabilities in the general education classroom (Hunt et al., 2001, 2002). Youth with disabilities may receive services from both special education and general education teachers. The collaboration between the general education and special education teachers is essential for the students to have integrated and quality services. The collaborative problem solving in UPS consists of (a) identifying issues of the student's academic and social performances, (b) developing supports for the identified issues, (c) implementing supports collaboratively, and (d) developing an accountability system (Giangreco et al., 1994; Merritt & Culatta, 1998; Salisbury et al., 1997; West & Idol, 1990). Hunt et al. (2003) conducted a single-case, multiple baseline design study to investigate the effects of general education/special education UPS on social and academic skills of elementary students with significant disabilities or those at risk. All participants were attending general education. One student at risk and one student with disabilities was in classroom A. Another student at risk and another student with disabilities was in classroom B. In this study, team members (i.e., a general education teacher, an inclusion support teacher, the child's parents, and the instructional

assistant assigned to each classroom) met once every month for about 1.5 hours to develop and re-evaluate students' progress plans. Throughout the process, team members used brainstorming, ongoing discussion, and continuously evaluation and refining. Hunt et al. collected data through observing students' behaviors (i.e., levels of engagement and interaction patterns) and interviewing team members about their perspectives on students' social and academic growth. Results showed collaborative teaming increased the students' academic performances (i.e., reading, writing, and math) and social interactive initiation. This study also supported the important roles of parents and suggested that there should be time for team members to reflect together throughout the collaboration process.

Family-centered Care. The second collaboration model is Family-centered Care, a collaboration model that has been used frequently to support families of children age between 0 and 4 years old (Bailey et al., 1992; Rosenbaum et al., 1998). Family-centered Care is defined as professionals working collaboratively and equally with the families of children with needs in the children's natural environment. To understand how Family-centered Care practices have been applied in different age of individuals, Dunst et al. (2006) conducted a meta-analysis to review 18 studies that applied family-centered practices for individuals from birth through high school. Dunst et al. found that secondary schools (i.e., serving middle school and high school students) were not influenced by the concept of Family-centered Care as much as early intervention programs (i.e., serving individuals from birth to age 3), preschool programs (i.e., serving individuals from age 3 to the beginning of kindergarten), and elementary schools (i.e., serving individuals from kindergarten to Grade 6). Rather, secondary schools focused more on Professionally Centered or Family-allied approaches, for which families are viewed as experts to support their children during the educational process. Dunst et al.'s review suggested that

depending on students' developmental stage, family's roles in their children's education could change over time, yet family continues to play an essential role as caregivers and educators.

Communication Interagency Relationships and Collaborative Linkages for Exceptional Students. The third collaboration model is Communication Interagency Relationships and Collaborative Linkages for Exceptional Students (CIRCLES), which is a transition-planning service delivery model designed to address the barriers and improve the collaboration between stakeholders for youth with disabilities (Aspel et al., 1999; Povenmire-Kirk et al., 2015). Youth with disabilities in secondary transition stage experience great changes in their life. To ensure a smooth transition, IDEA (2004) mandated all students with disabilities who are age 16 or above to have an Individualized Transition Plan (ITP) and annual IEP meetings. The purpose of the ITP and IEP meetings are to identify the youth's desired post-school outcomes (e.g., job, education, lifestyle) and provide them appropriate supports to reach their post-school outcomes through collaboration between multiple stakeholders (e.g., students, parents, teachers, community service providers). However, multiple barriers during the collaboration process remain, such as professionals experiencing limited available time to coordinate ITP meetings, agencies experiencing overwhelming caseloads to attend each student's IEP meeting, and special education teachers inviting only the agencies with whom they are familiar (Povenmire-Kirk et al., 2015).

CIRCLES was designed to address these barriers. CIRCLES implements interagency collaboration under three domains: Community-Level Team (CLT), School-Level Team (SLT), and IEP team. The CLT includes administrators and supervisors from each agency that offers transition services. The purposes of the CLT are to (a) address the community issues about accessing services at the policy level, and (b) appoint service representative to serve on the

school team (Aspel et al., 1999; Flower et al., 2018; Povenmire-Kirk et al., 2015). The SLT includes core team members (i.e., adult service providers, such as vocational rehabilitation counselors, mental health representatives, and community rehabilitation program representatives), school specific team members (i.e., team members related to the schools students attend, such as career technical education teachers and staff, special education teachers, and social workers), and student specific team members (i.e., students' entourage, such as students' family members, friends, job coach, case manager, paraprofessionals, employer). An SLT meeting takes place once a month for an entire day. The purpose of the SLT meeting is to obtain information that will be used later at the actual IEP team meeting for the development of the transition component of the IEP. This meeting can ensure the developed transition plan to be implemented smoothly (Aspel et al., 1999; Povenmire-Kirk et al., 2015). Families are essential prior to, during, and after the SLT meetings. Prior to the meetings, families need to have some ideas about what are going to happen at the school level transition team meetings. They will be asked to share their concerns and their expectations toward their children. During the meetings, families will have the opportunities to learn from their children's thoughts toward their own future. At this phase, families will be encouraged to be part of the discussion, and provide thoughts and supports to the students. Families at the SLT will be invited to provide information about their children to the frontline professionals (e.g., teachers) to support students' transition planning development, gain agency information from the professionals (so they could start to think or make decision about the students' next step), and determine the future IEP meeting members along with other professionals. The IEP meeting should include the student, parents, special education teacher, general education teacher, a school representative, and a transition service agency representative. Different from the SLT which focuses on preplanning process, the

IEP team is a team that develops students' actual IEP and transition components. The special education teacher will take the decisions made by the school team meeting back to the IEP team meeting, which will ensure the transition components in the student's IEP and the ITP aligns with the agreed-upon decision the school team has made (Aspel et al., 1999; Povenmire-Kirk et al., 2015). At the IEP meeting, the families can discuss with the other team members about the students' needs in order to accomplish their IEP goals, such as specific skills the students need to learn and how the skills are going to be taught.

To investigate the effects of CIRCLES on students' self-determination and IEP participation, Flower et al. (2018) conducted an experimental study, which recruited 44 schools with 574 students age between 16 and 18 years old who were receiving services under IDEA (2004) as participants. The schools were randomly assigned equally to two groups, one was CIRCLE group and the other was business-as-usual (BAU) group (i.e., schools that continued their current model for transition planning). Data collection instruments included the American Institutes for Research (AIR) Self-Determination Scale (Wolman et al., 1994) and teachers' ratings on students' IEP participation. Results showed CIRCLES positively influenced students' self-determination and participation in their IEP meetings even after controlling for other factors (i.e., students' disability status, students' grade level, and free or reduced lunch status).

In sum, in response to the needs for effective collaboration, multiple collaboration models and strategies were developed. UPS proposed strategies to improve collaboration between general education and special education teachers. Family-centered Care offered practices to support families of children before age four. CIRCLES presented a transition-planning service delivery model to address barriers and to improve collaboration between stakeholders. With all of these models, parent engagement is essential to improve effective

collaboration for achieving positive outcomes for youth with disabilities. In the following section, I will discuss parent engagement related to its definition, barriers associated with engaging parents, as well as frameworks and potential strategies for promoting parent engagement.

Summary

Effective collaboration among stakeholders has long been identified has a positive influence on students' in- and post-school outcomes (Flower et al., 2018). Specifically, interagency collaboration is one predictor of positive post-school outcomes for youth with disabilities (Mazzotti et al., 2016). Theories of collaboration such as Ecological/Biological theory and Theory of Overlapping Spheres of Influence also have emphasized the importance of family, school, and community collaboration when promoting students' educational outcomes (Bronfenbrenner, 1974; Epstein, 1987). Policies and legislations (ESSA, 2015; IDEA, 2004; NCLB, 2001; WIOA, 2014) further mandate stakeholders to implement effective collaboration for youth with disabilities to promote positive student outcomes. To support effective collaboration, researchers have developed collaboration models to guide the planning and implementation, including the UPS (Hunt et al., 2002), Family-centered Care (Bailey et al., 1992), and CIRCLES (Aspel et al., 1999; Flower et al., 2018; Povenmire-Kirk et al., 2015). Within each of these models, parent engagement remains as one key component to bring about positive outcomes in youth with disabilities. Yet, barriers in parent engagement exist, which affects effective collaboration.

Parent Involvement in Secondary Transition of Special Education

Parents of students with disabilities play an essential role throughout the students' lifespan. Parent involvement has long been documented as critical for both in-school and post-

school outcomes of youth with disabilities (Fan & Chen, 2001; Henderson & Mapp 2002; Jeynes 2005, 2007; Pomerantz et al., 2007). Levels of parent involvement are shaped by parents' cultural backgrounds, attitudes, future expectations toward their children, invitations from their children and teachers, knowledge and skills, time and energy, role construction, and beliefs (Hirano et al., 2018; Quezada et al., 2003; Valdes, 1996). Multiple barriers impede parent involvement in their children's school activities, such as parents' stress from daily living, schools' lack of information and accessible materials, and teacher-directed educational plans (Hirano et al., 2018). The focus of this section is to (a) identify the differences between parent involvement and parent engagement, (b) describe the definition of and legislations related to parent involvement in special education in secondary transition, (c) review the importance of parent engagement in secondary transition, (d) identify the models, frameworks, and practices that have been used for parent engagement in secondary transition, and (e) discuss prior research addressing parental perspectives and beliefs.

Parent Involvement vs. Parent Engagement

Parent involvement and parent engagement have been identified and studied in the existing literature. Although some people regard these two terms as interchangeable, the distinctions between them exist. Shirley first articulated the distinction in 1997, where he explained "Parental involvement - as practiced in most schools and reflected in the research literature - avoids issue of power and assign parents a passive role in the maintenance of school culture. Parental engagement designates parents as citizens in the fullest sense - change agents who can transform urban schools and neighborhoods" (p. 73). In addition, Reynolds (2010) further elaborate the distinction as, "The term 'Involvement' used in this work refers to school-sanctioned, school authored activities in which parents participate. The term 'Engagement' is

conceptualized as encompassing those activities parents structure for themselves and their self-directed relational interactions with school officials (p. 144).” Compared to parent involvement, parent engagement strengthens on parental roles as initiatives toward partnering with schools and educators. Because the purpose of this dissertation is to identify parents’ perceptions and experiences of facilitators and barriers to improve parents’ proactive school participation (which will put the parents on the expert and proactive position), except the terms in the legislations, I will use the term “parent engagement” throughout the dissertation when referring to school/teacher behavior of proactively involving parents in their children’s education related activities.

Definition and Legislations of Parent Involvement

The definition of parent involvement varies across literature (Grolnick & Slowiaczek, 1994; Hoover-Dempsey & Sandler, 1997; Larocque et al., 2011; Rowe et al., 2013). Literally, parent involvement has been described as “the dedication of resources by the parent to the child” (Grolnick & Slowiaczek, 1994; p. 238). Relating specifically to education and learning, Larocque et al. (2011) defined parent involvement as “the parents’ or caregivers’ investment in the education of their children” (p. 116), whereas Hoover-Dempsey and Sandler (1997) clarified parent involvement as parental activities at home and at school that are related to children’s learning in school. Researchers have identified home-based strategies and school-based strategies as two specific types of parent involvement (Comer, 1995; Epstein, 1987). Home-based parent involvement refers to parents providing educational supports at home such as supervising their children’s homework and supporting community-related tasks, which can affect students’ long-term quality of life. School-based parent involvement refers to engagement of parents in school-related activities, such as attending educational meetings, supporting students’

schoolwork, and responding to school staff. No Child Left Behind (NCLB, 2001) defines parent involvement as the process of the following three activities: (a) teachers, principals, administrators, and other appropriate school personnel should jointly collaborate with parents; (b) schools should involve parents for developing their children's educational plan and participating in school activities; and (c) schools should invite parents to be part of the their children's educational process to improve their children's academic achievement and school performance (NCLB, Sec. 118). In special education secondary transition field, Rowe et al. (2015) defined parent involvement in a delphi study as "parents/families/guardian [being] active and knowledgeable participants in all aspects of transition planning (e.g., decision making, providing support, attending meetings, and advocating for their child)" (p. 122). In summary, parent involvement has been defined as educational related activities in which parents involve and participate regardless of settings, activities, and students' ages.

In special education, the importance of parent involvement is highlighted in legislations to ensure parents' rights to be involved in every aspect of their child's education. For example, the Individuals with Disabilities Education Act (IDEA, 2004) requires public agency to involve parents of students with disabilities in educational activities, such as informing parents their child's educational activities and providing interpreters in IEP meetings, if needed. When students turn age 16, which is the legal age to have a secondary transition plan, schools are required to invite parents of youth with disabilities to participate in students' transition planning meetings. In addition, IDEA (2004) requires schools to include parents in determining educational placements, developing educational goals, and evaluating student progress continuously. Similarly, NCLB (2001) requires schools to arrange annual meetings with parents at their convenient time with compensated supports to encourage parent's educational

involvement. The Every Child Succeeds Act (2015), reauthorization of the Elementary and Secondary Act of 1965, also requires schools and school districts to provide activities to include parents and to build capacity for parent involvement. All of these legislations support the importance of parent involvement for students with disabilities.

Parents' Impact on Students with Disabilities

Parents have long been documented as being the most influential individuals in supporting students with disabilities at home and in the community (Fan & Chen, 2001; Henderson & Mapp 2002; Jeynes 2005, 2007; Pomerantz et al., 2007). McDonnall et al. (2012) conducted a nationally representative Special Education Elementary Longitudinal Study based on 341 students and found parent involvement at school was positively associated with mathematics achievement for students with visual impairments. In addition, parents serve as the students' advocates, which include contacting legislators, participating in voting for topics related to their children, and volunteering in activities related to people with special needs (Burke et al., 2020). According to Burke et al. (2020), parent advocacy is "critical for promoting their [child's] disability-related issues" (p. 10).

For students with disabilities in secondary transition age, parent involvement can play a critical role in increasing their self-determination skills (Lindstrom et al., 2007). Lindstrom et al. (2007) conducted in-depth interviews with 59 young adults with learning disabilities, their parents, and school staff to understand the role of families in career development and post-school employment outcomes. In the study, a mother explained her philosophy behind letting her daughter to take risks was her daughter's needs to "learn the responsibilities of where to put that paycheck. Pay those bills first. … learn that I'm not always going to be there." (p. 360). Lindstrom et al. concluded that parents may provide opportunities for their youth to learn from

risks and to grow from mistakes, which helps to promote self-determination and independent decision-making skills for these youth with disabilities. Consistent with the findings from prior studies (Penick & Jepsen, 1992; Whiston & Keller, 2004), Lindstrom et al. found family support and advocacy and intentional career activities were positively related to career development for young adults with learning disabilities. In addition to the above, in secondary transition, parents may serve as the solely continuous source or ongoing support for their children with disabilities (Brotherson et al., 1993; Morningstar et al., 1995).

Parent Involvement in Secondary Transition

In secondary transition, parent involvement and accompanying parent expectation on youth has a long-lasting effect on students with disabilities. For example, the National Longitudinal Transition Study-2 (NLTS2) examined the secondary and post-school experiences of youth with disabilities and found the higher educational involvement from parents, the higher employment, independent living, and post-school education rates of youth with disabilities. Based on longitudinal studies, researchers also found parent involvement predicted students with disabilities to receive a post-school paid job, attend postsecondary education, and/or to be self-supporting (Carter et al., 2012; Chiang et al., 2012; Doren et al., 2012; Greenfield et al., 2012; Papay & Bambara, 2014; Wagner et al., 2014). Further, Test et al. (2009) conducted a systematic review of the secondary transition correlational literature to identify in-school predictors of improved posts-school outcomes. Researchers found parent involvement was one predictor of post-school education and employment outcomes. For instance, for parents who participated in more IEP meetings during the 11th and 12th grade years of the students, their children were more likely to be engaged in post-school employment (Fourqurean et al., 1991). Building upon the work of Test et al., Mazzotti et al. (2021) identified additional research that supported parent

expectations as one predictor for post-school employment. For instance, parents expressing higher expectations for their child to gain paid work after high school correlated with youth's higher employment rates (Cmar, 2015; Simonsen & Neubert, 2013; Wehman et al., 2015).

Despite its importance in secondary transition, parent involvement is still a challenge for schools and districts. According to a survey conducted by Binns et al. (1997), 83% of 1,035 secondary school teachers indicated the need of increasing parent involvement in education settings. After 20 years, involving parent of students with disabilities remains challenging for educators. Billingsley and Bettinis (2019) conducted a systematic literature review and found that level of supports from parents related to special education teachers' attrition rate. In this study, educators showed higher attrition rate when they had less smooth coordinate services across stakeholders for their students. In addition to educators' struggles, parents of youth with disabilities described frustrations of not being involved in their children's educational activities enough or appropriately (Ankeny et al., 2009). These results may suggest some discrepancies of the "what" (i.e., what are the needs of parent involvement) and the "how" (i.e., how to improve parent involvement addressing schools' needs and parents' needs), as well as the need for more parent involvement training for schools to ensure teachers are adequately prepared to work effectively with parents (Baker, 1997; Flanigan, 2007).

Another factor for why parent involvement decreases as students transition from middle to high school could be related to students' age and developmental stage (Eccles et al., 1993). Newman (2005) reported parents of older students with disabilities were less involved at home and school than parents of younger students. The potential reason is that youth wanting to become independent and parents viewing secondary schools as large bureaucratic and not welcoming organizations (Eccles & Harold, 1993; Hollifield, 1994). Although youth reporting

the needs of being independent, studies also have found that youth are willing to involve their parents in their education activities. For example, Deslandes and Cloutier (2002) investigated the types of parent involvement activities that adolescents were willing to support from a 3-year longitudinal study. Based on a sample of 872 children who were 14 years old, results showed that the participants indicated their willingness to show their parents what they learned at school and seek for parents' ideas.

Barriers to Parent Engagement

Even with the legislation mandates and aforementioned studies that testify the importance of parent engagement, engaging parents in school remains challenging. To improve parent engagement, it is essential to identify barriers. Below I will discuss barriers associated with parent factors and teacher factors that may hinder effective parent engagement.

Parent Factors. Several variables associated with parents and families have been identified as barriers to parent engagement. For instance, Hirano et al. (2018) identified four specific family barriers in a meta-synthesis with findings from 22 qualitative studies: experiencing stress, having limited resources, lacking cultural capital, and having low self-efficacy. Specific examples from the studies are that family experienced work-related and financial barriers, experienced stresses of daily living, needed to care for the youth with disabilities, had competing priorities, and lacked knowledge of systems, laws, and practices (Hirano et al., 2018). For self-efficacy, according to Bandura (1989), parents who have a relatively low confidence in helping their children may avoid assisting their children since they may not see the positive impact of their support on their children. Further, time constraints, such as parents having limited time to engage in productive school involvement (Keyes, 2002; Turney & Kao, 2009), can be an important barrier for parents to participate in school activities.

Additional barriers also include (a) ineffective communication due to different philosophy in educational and cultural background (Chavkin & Williams, 1993; Davies, 1987; Deslandes & Bertrand, 2005; Ratcliff & Hunt, 2009); and (b) children's age, for instance, as children get older, parent engagement declines (Adams & Christenson, 2000; Hoover-Dempsey & Sandler, 2005; Sanders & Lewis, 2005; Simon, 2004). Research also noted, for parents from minority group, who may not attend school functions, being unresponsive to school-initiated communication may be due to lack of relevant knowledge or insufficient resources for the families (Hirano et al., 2018; Soutullo et al., 2016). In addition, studies found the characteristics of the children (e.g., severity of children's challenging behaviors and children's disability categories) and available resources for the parents (e.g., community supports and financial supports) have positive correlation with the levels of parent engagement, that is, the more severe a child's disability and the more available resources for the parents, the higher level of parent engagement (Newman, 2004).

Teacher/School Factor. In addition to parent factors, teacher's characteristics, behaviors, and perceptions also influence the level of parent engagement. For example, teachers who are (a) lacking professional development or training for collaboration with parents (Ferrara & Ferrara, 2005; Ratcliff & Hunt, 2009), (b) having negative attitudes toward parent collaboration (Baum & Swick, 2007; De Gaetano, 2007) and assuming parents are not interested in their children's school activities (Dauber & Epstein, 1993; Epstein & Dauber, 1991), and (c) concerning parent involvement might weaken teachers' professional status (De-Caravalho, 2001; Sanders & Epstein, 2005) have all been barriers to parent engagement in school. Additionally, Hirano et al. (2018) identified two main school barriers from their meta-synthesis study findings, including (a) disregard for student and family characteristics and values, and (b) lack of

accessible materials and information. Specific examples from the studies include: (a) racism toward the student and their parents; (b) lack of information, accessible materials, and interpretation services; (c) parents' views that professionals feel threatened when they are knowledgeable; (d) parents not feeling valued as stakeholders and key decision-makers in the IEP meeting; (e) parents mistrusting schools when schools conduct transition planning without input from students or parents; (f) late planning that prevents development of a solid, individualized plan; (g) services being teacher-directed and based on existing programs, not individualized based on strengths, interests, or high expectations; and (h) transition plans of poor quality being a barrier to providing appropriate programming to support the student's post-school outcomes.

Parent factors and teacher/school factors both affect parent engagement. In order to effectively promote parent engagement, it is important to pinpoint the variables as barriers and overcome these barriers using effective strategies to engage parents.

Frameworks and Models for Engaging Parents

Framework or model helps policy makers and service providers understand parent engagement from a broader point of view and gain directions on which they can focus. To address the barriers and promote parent engagement, a comprehensive framework or model in secondary transition for youth with disabilities is critical for schools and districts. Below I describe four major frameworks of parent engagement for students in the secondary transition age as well as for the general student population.

Taxonomy for Transition Programming. The first framework is Taxonomy for Transition Programming. Kohler et al. (2016) developed this framework to provide an overview of critical components in secondary transition. The Taxonomy for Transition Programming

includes five essential domains to cultivate a positive and smooth secondary transition. The five domains are family engagement, program structure, interagency collaboration, student development, and student-focused planning. Under family engagement, Kohler et al. identified three elements: family involvement, family empowerment, and family preparation. For the family involvement element, Kohler et al. highlighted eight components: (a) families' cultural background and intimate knowledge of and experience with their child informs the IEP development, (b) families provide information about their child either orally or in writing, (c) families participate in the entire transition planning process (i.e., student assessment, evaluation of student's program, IEP and other individual program planning meetings, and decision making), (d) families participate in service delivery, (e) families participate in natural support network as trainers, mentors, peer advocates, or community liaisons, (f) families participate in program policy development, (g) families' concerns and needs are represented in school governance, and (h) school provides non-family member interpreters. For the family empowerment element, Kohler et al. pointed out the importance of providing transition information, being sensitive to cultural diversity, identifying family needs, and coordinating related community services and post-school education. For the family preparation element, Kohler et al. stressed on promoting family's capability to improve students' outcomes. According to Kohler et al., parent engagement strategies in the school setting aim to increase parents' knowledge, efficacy, confidence, and expectation toward their children with disabilities. The Taxonomy for Transition Programming (Kohler et al., 2016) provides a fundamental picture of secondary transition components, but the outcomes for parent engagement were not explicitly discussed or defined.

Seven Principles of Partnership. The second framework is Seven Principles of Partnership (Turnbull et al., 2015). This model focuses on parent engagement for the secondary transition of youth with and without disabilities. According Turnbull et al., the seven principles include: (a) communication (be friendly, listen, be clear, be honest, provide and coordinate information); (b) professional competence (provide an appropriate education, continue to learn, set high expectations); (c) respect (honor cultural diversity, affirm strengths, treat students and families with dignity); (d) commitment (be sensitive to emotional needs, be available and accessible, go "above and beyond"); (e) equality (share power, foster empowerment, provide options); (f) advocacy (prevent problem, be alert for opportunities to advocate, pinpoint and document problems, form alliances, create win-win solutions); and (g) trust (be reliable, use sound judgment, maintain confidentiality, trust yourself). This model offers a guideline for schools to check their parent engagement strategies.

School-Community Partnerships. The third framework is School-Community Partnerships, which is to align with specific needs of general population in secondary transition age. School-community partnerships provides services to students in a collaborative way with integrated resources from schools, families, and the community (Zelin et al., 2001). Epstein et al. (2019) suggested the partnerships may strengthen six types of involvement for middle and high school students' parents. The six type of involvements include: (a) parenting (provide knowledge/training to help parents to assist their children); (b) communication (increase home-school two-way channel); (c) volunteering (provide opportunities for volunteers to make a difference in the quality of school and classroom programs and practices); (d) learning at home (involve families with their children in academic learning activities at home that are coordinated with students' classwork and that contribute to student success in school); (e) decision making

(include parents and other family and community members in developing, reviewing, and improving school policies and mission statement that affect children and families); and (f) collaborating with the community (draw upon and coordinate the work and resources of community businesses, cultural, civic, and religious organizations). To understand the usefulness of conducting school-community partnerships, Zetlin et al. (2001) interviewed 36 family members in California to explore their experiences of receiving services from the school-community partnerships. Results showed after receiving the services based on school-community partnerships, the coordinated services improved, families' stress decreased, and the rate of family engagement in their children's educational activities increased. The School-Community Partnerships specifies how parents of youth in general education in secondary transition can be involved in educational activities. Just like the Seven Principles of Partnership (Turnbull et al., 2015), this model does not specifically address the needs of parents of youth with disabilities.

Conceptual Model for Parent Involvement in Secondary Special Education. The last framework is Conceptual Model for Parent Involvement in Secondary Special Education (Hirano & Rowe, 2016), which is a conceptual map for parent involvement targeting secondary transition in special education. In this framework, Hirano and Rowe (2016) identified three main factors (i.e., school values and beliefs, school interventions, and expanded parent roles in secondary special education and transition) from prior literature that may affect parent involvement in secondary transition. Under the factor of school values and beliefs, Hirano and Rowe identified two components of school leadership, and teacher beliefs and efficacy. School leadership refers to how school leaders believe in the effectiveness of parent engagement and cultivate school climate on the topic of involving parents in the process. Teacher beliefs and efficacy refers to teachers' perceptions on involving parents and their confidence in the involvement. Examples for

this factor are (a) school administrators encouraging teachers to involve parents in educational activities by providing professional development, and (b) teachers believing engaging parents is essential and inviting parents to be involved proactively (Hirano & Rowe, 2016).

Under the factor of school intervention, Hirano and Rowe (2016) identified four components: (a) parental role construction; (b) parental efficacy; (c) parental knowledge and skill, and (d) parent expectations. First, parental role construction refers to parental involvement being influenced by their beliefs, and the beliefs are varied by their race, cultural background, and social economic status. In secondary transition, parents' role could include not only homework supervisor and school meeting attendees, but also decision makers, evaluators, collaborators, and instructors. Second and third, parental efficacy and parental knowledge and skills refer to parents' skills and knowledge that can influence their involvement in their children's educational activities. In secondary transition, Hirano and Rowe (2016) noted, besides having proper knowledge, parents must also believe in their capability in improving their children's outcomes. Parents who perceive themselves as a support for their children and feel confidence about helping their children in educational activities tend to involve more. Fourth, parent expectations refer to the degree to which parents expect their children to gain positive in- and post-school outcomes. In secondary transition, parents who expect their children to have a certain level of competitive employment outcomes tend to access competitive employment resources for their children in transition age (Francis et al., 2014).

Finally, under the expanded parent roles in secondary special education and transition, parental roles are not limited to attending school meetings and educational activities, but rather parents have multiple roles. Hirano and Rowe (2016) identified seven roles parents may play: (a) decision makers and collaborators, (b) instructors, (c) advocates, and (d) supporters with respect

to academics, self-determination, daily living, and social skills. Hirano and Rowe stated it is critical for schools to identify these roles and support parents in fulfilling the responsibilities of each role.

The above conceptual models provide an overview of the potential factors on parent engagement in secondary transition. Yet, specific strategies for schools to engage parents of youth with disabilities are still unclear. In the following section, I will discuss parent engagement strategies that have been identified for engaging parents of youth with disabilities based on the current literature.

Strategies for Improving Parent Engagement

Based on the four major frameworks above, factors of effective parent engagement in secondary transition can be categorized into five domains on which teachers may focus to improve parent engagement: (a) knowledge and skills (Hirano & Rowe, 2016; Hirano et al., 2018); (b) communication (Epstein et al., 2019; Turnbull et al., 2015); (c) collaboration (Epstein et al., 2019); (d) relationship (Epstein et al., 2019; Turnbull et al., 2015; Hirano et al., 2018); and (e) culturally responsive practice (Gay, 2001; Grant & Ray, 2018; Turnbull et al., 2015). These five domains correspond to areas of strategies for improving parent engagement. For example, Blue-Banning et al. (2004) conducted two rounds of family member focus groups and two rounds of professional focus groups to identify the specific indicators of professional behavior that parents and professionals reported as indicative of collaborative partnership. A total of 137 family members and 53 professionals participated. Blue-Banning et al. identified six themes that related to effective family-professional partnership: (a) communication (e.g., sharing resources, communicating positively, listening, communicating frequently, coordinating information), (b) commitment (e.g., being flexible, encouraging the child and family, being accessible to the child

and family), (c) equality (empowering parents, advocating for the child or family with other professionals, allowing reciprocity among members), (d) skills (e.g., taking action, having expectations for child's progress, meeting individual special needs), (e) trust (e.g., being reliable, keeping the child safe, being discreet), and (f) respect (e.g., valuing the child, being nonjudgmental, being courteous). Results of this study offered school professionals strategies to improve the parent-school collaboration and parent engagement.

Knowledge and Skills. Knowledge and skills refer to parents' understanding toward secondary transition that can affect their involvement in their children's educational activities (Hirano & Rowe, 2016; Hirano et al., 2018). To strengthen parent engagement, it is essential to develop parents' knowledge and skills in secondary transition. Studies have identified that sharing resources with parents of youth with disabilities was the strongest predictor of parent satisfaction and the information sharing can promote parent engagement in high school (Geenen et al., 2005; Landmark et al., 2007; Rueda et al., 2005; Shapiro et al., 2004; Seitsinger & Brand, 2012). Greater access to information also was seen as a tool for parents from cultural minority backgrounds to increase their children's services (Rueda et al., 2005). Margolis and Brannigan (1986) suggested specific strategies to enhance parent-school relationship, such as teachers preparing meetings with parents by reviewing information that is relevant to the meeting beforehand. By sharing knowledge and skills with the parents, teachers also show parents that they are competent, and parents could rely on them to support children with disabilities.

Communication. Communication has long been identified as one of the major practices to improve parent engagement in school (Epstein, 1995); however, studies continue to show that teachers lack skills to effectively communicate with parents (Lawrence-Lightfoot, 2004). Communication includes words and impression (Chambers, 1998). For instance, when parents

first come into a classroom, the teacher may smile, say “Welcome” (words), and show an interest in the parents’ needs and concerns (impression). Teachers may deliver their communication to parents in one-way or two-way format depending on the purpose of the communication (Berger, 1991). One-way communication happens when teachers share specific information with parents, which is efficient and effective for schools to maintain ongoing school-parent relationships (Williams & Cartledge, 1997). Strategies for delivering one-way communication include school or classroom newsletters, school-to-home notebooks, and report cards (Graham-Clay, 2005). Two-way communication occurs when there are teacher-parent interactive dialogues, such as when teachers call parents to discuss their child’s performance at school (Lawrence-Lightfoot, 2004).

According to Price and Marsh (1985), teachers need to be thoughtful and prepared for each parent-teacher communication to promote effective communication. To be thoughtful, teachers may take parents’ feelings into consideration and hold “good news calls” periodically to celebrate the small progress the students made, instead of solely reporting students’ problems (Graham-Clay, 2005). To be prepared, Price and Marsh suggested that teachers review the student’s file, create a clear agenda, and inform parents about timeframe for each parent-teacher communication. Due to time and energy limits for both teachers and parents, teachers should make sure each communication is purposeful and efficient (Price & Marsh, 1985).

Researchers also have suggested that in order to improve the quality of parent-teacher communication, teachers need important interpersonal skills, including: (a) reflecting affect (e.g., “I can feel this situation is very frustrated to you.”), (b) using clarifying statements to ensure they understand accurately (e.g., “Am I understanding this correctly?”) (c) being in uncrossed arms and relaxed posture, (d) leaning toward the other, (e) having eye contact when culturally

appropriate, and (f) providing language supports (e.g., interpreter) (Egan, 1990; Landmark et al., 2007). Additionally, teachers should take cultural factors into consideration. When communicating with parents, due to the cultural and linguistic differences, disagreement can occur. Margolis and Brannigan (1986) suggested teachers listen carefully and empathetically, and be sensitive to the parents' emotional message behind their cognitive content message. For instance, when parents are sharing their experiences of supporting their children with disabilities, teachers may acknowledge the parents' efforts and recognize the parents' feelings (e.g., happiness, frustration, and loss). Active listening and sensitivity provides parents and teachers a safe environment to communicate from different perspectives.

Collaboration. In 1991, Bruner defined collaboration as "a process to reach goals that cannot be achieved acting singly (or, at a minimum, cannot be reached as efficiently). As a process collaboration is a means to an end, not an end in itself. The desired end is more comprehensive and appropriate services for families that improve family outcomes" (p. 6). Youth with disabilities receive multiple services from home, school, and community during secondary transition. To ensure integrated services for the youth, IDEA (2004) mandated schools to coordinate with the service providers to develop students' IEP. Researchers also have developed collaboration models to support schools in building effective collaboration between stakeholders. For example, as described previously, Povenmire-Kirk et al. (2015) developed a transition-planning service delivery model, namely CIRCLES, to improve the effectiveness and efficiency of interagency collaborations. Intervention of CIRCLES includes three levels of interagency collaboration (i.e., Community Level Team [CLT], School-Level Team [SLT], and IEP Team). Under the CLT, administrators meet two to four times a year to discuss gaps and potential solutions for youth with disabilities at the policy level. CLT would appoint one direct

service representative to serve on the SLT (Flower et al., 2018). The SLT is a pre-planning process for developing IEP. Under SLT, people develop transition activities and services for youth with disabilities. The team members under this level consists of direct service providers of each CLT agency representative (e.g., case managers, counselors, and care coordinators). Special education teachers invite these representatives to attend a monthly meeting, which addresses the student's post-school goals in the areas of postsecondary education, employment, and independent living. Under this level, special education teachers prepare students to present their strengths, post-school goals, and needs in front of the representatives. Families are invited to provide inputs regarding the needs from the families. Under the IEP team, stakeholders come together to design IEP with the individuals with disabilities. Transition components in the IEP will be developed based on the decision and conversations from the SLT. CIRCLES has demonstrated as a comprehensive strategy to improve collaboration between teachers, parents, students, and other stakeholders via raising awareness among community, school, and individual level about available services for youth with disabilities (Flower et al., 2018; Povenmire-Kirk et al., 2015).

Relationship. Positive parent-school relationship has been reported by parents as a predictor for effective parent engagement in school activities (Epstein et al., 2019; Turnbull et al., 2015); however, it can be difficult to define, promote, and evaluate relationship objectively (Dunst et al., 1992). In the parent-school relationship, trust has been regarded as an essential component and the most frequently mentioned characteristic of positive parent-professional partnerships (Dunst et al., 1992). Trust in a relationship can be seen as "a generalized expectancy held by an individual that the word, promise, or statement of another individual can be relied upon" (Rotter, 1980, p. 651). Rempel et al. (1985) categorized trust in three progressing levels:

predictability, dependability, and faith. At the predictability level, both sides of parties show reliability of behavior so each side can predict the behavior from the other side. As the behavior repeats over time, the relationship progresses to the dependability level. At this level, both parties have a general thought toward the other side (e.g., My child's teacher is a reliable person). When the dependability level becomes stable, the trust level progresses to the final state of faith. At this level, based on the past positive experiences toward the other party, both sides of the parties believe in the behavior of the other party, even under an uncertain circumstance.

Research has shown that parents' trust toward teachers decline as their children move to secondary education, as the students are expected to take more responsibilities for their own performances and communicate with their teachers directly (Adams & Christenson, 2000). Margolis and Brannigan (1986) suggested teachers adopt strategies such as (a) helping parents to feel comfortable at school through caring small talks, (b) focusing on parents' hopes and concerns so they can feel the care from the schools, and (c) keeping the words (e.g., returning parents' phone call if you have promised to make) to build trust in parents and to promote parent-school relationship.

Culturally Responsive Practice. Although involving parents of students with disabilities in educational planning process is mandated by law, meaningfully engaging parents in ways that are culturally responsive remains challenging. Because schools in the United States mainly deliver values of white middle class, the disconnections between school and parents from diverse cultural backgrounds are obvious, particularly for families of low-income, color, and non-English speaking (Bernstein, 1975; Lareau, 2011), which put the students and their families from diverse backgrounds at the position of denying their cultures, languages, and literatures (Paris & Alim, 2017). Culturally Responsive Teaching (CRT) is an educational approach for supporting

ethnically diverse students with disabilities (Gay, 2001). CRT focuses on using individuals' "cultural orientations, background experiences, and ethnic identities as conduits to facilitate their teaching and learning." (Gay, 2001, p. 614). Under the similar philosophy, culturally responsive practice has been applied to address the school-parent cultural disconnections (Grant & Ray, 2019). Within the context of secondary transition for youth with disabilities, researchers have suggested several strategies for schools to apply for promoting cultural responsiveness to improve parent engagement. First, it is important for teachers to identify and value students' cultural impact on students' transition planning goals (Povenmire-Kirk et al., 2010). For instance, post-school success indicators (e.g., independent living) may be culturally inappropriate for Latino students with disabilities who have been expected to stay with their families (Povenmire-Kirk et al., 2010). Second, teachers should develop transition goals that represent meaningful outcomes for family's cultural values that are then linked to necessary transition services (Hetherington et al., 2010). Finally, teachers are advised to facilitate cultural liaisons to help with documentation and citizenship concerns, when placing and supporting students in community work experiences (Povenmire-Kirk et al., 2010). For example, some minority families may be illegally staying in the United States. Teachers' knowledge on the citizenship or connections with relevant local social service agencies may provide needed support for the families in needs (Povenmire-Kirk et al., 2010).

In sum, the existing literature has suggested strategies for teachers to improve parent engagement in five domains of knowledge and skills, communication, collaboration, relationship, and culturally responsive practice (Epstein et al., 2019; Hirano & Rowe, 2016; Turnbull et al., 2015). However, most of the strategies identified above were based on research for individuals without disabilities or services for families of younger children with disabilities

with limited information on parent engagement strategies in secondary transition for families of youth with disabilities.

Parental Perspectives and Beliefs

Parent engagement strategies may be ineffective if parents' perspectives and beliefs are not being taken into consideration. When discussing beliefs at a fundamental level, parents and teachers may differ in their understanding and perception of education. On the one hand, education can be seen as attending school and teachers are the ones who own the knowledge, skills, power, and expertise (Munn, 1993). On the other hand, education can be seen as merely a part of learning process, then parents who teach their children about their culture, language, behaviors, and life are the ones who own the power and expertise (Munn, 1993). Clearly, differing beliefs in education influence how parent engagement is perceived, structured, valued, and most importantly, how the parents respond to school practices on parent engagement (Hoover-Dempsey et al., 2005).

Parent involvement frameworks and models provide guidelines for professionals to involve parents in educational activities. Despite the practicality of these models in promoting parent involvement, no known studies exist that apply any of the aforementioned models (i.e., Taxonomy for Transition Programming, Seven Principles of Partnership, School-Community Partnerships, and Conceptual Model for Parent Involvement in Secondary Special Education) and promoting parent engagement continues to remain challenging. Before schools may successfully engage parents, it may be helpful to first identify challenges for parent engagement. One way to understand challenges parents may experience in parent engagement is to explore their perspectives. Parents' experiences and perspectives toward parent engagement can influence their beliefs and behaviors on school-based parent engagement practices. For example,

when parents think that parent engagement is not valued by teachers or schools, they are less likely to get involved (Hoover-Dempsey & Sandler, 1997). Additionally, studies indicated that parents' cultural, educational, and socioeconomic backgrounds affect the ways they perceive the parent engagement, such as parents' level of education (Green et al., 2007), family circumstances (Catsambis, 2001; Green et al., 2007), psychological resources (Eccles & Harold, 1993), culture (Chrispeels & Rivero, 2001), and socioeconomic status (Lareau, 2003). Even though it is widely accepted that the vast majority of parents do care about their children's education, and that working-class parents care just as much as middle-class parents (Epstein, 2001; Wolfendale, 1983), parent engagement typically has been identified as a dominant middle-class involvement, which is precisely the group of parents who are the main participators in parent engagement (Bastinani, 1989). Those largely involved are, as defined by teachers, the "good parents" who typically are white middle-class, married, and heterosexual (Reay, 1998). Parents from culturally and linguistically diverse backgrounds may encounter language barriers and resource deficiency, which can inhibit their capacity to be involved in their children's educational activities (Quezada et al., 2003; Valdes, 1996). Further, parents from culturally and linguistically diverse backgrounds may have substantially different relationships with teachers, who most often share white middle-class cultural capital (OECD, 1997). Lacking understanding or sensitivity toward parents' identified culture can have negative impact on parent engagement in educational activities (Boone, 1992).

Parent engagement may be shaped from parental perspectives and what they believe in relation to what their capacity is to support their children, how their children perform, and how school education can support their children. Hoover-Dempsey and Sandler (1997) pointed out that parents with low level of belief in their ability to help their children are likely to avoid

contact with schools because of their view that such involvement will not bring positive outcomes for their children. For some parents, lack of confidence in helping their children may be due to the language barriers, which affect their communication with professionals. It also can be due to the negative experiences in the past, which can result in their low motivation to continue participating in their children's educational activities. As the students grow older, parents may regard their children's schoolwork to be more advanced and that they do not have enough capacity to support their children (Eccles & Harold, 1993). According to Eccles and Harold (1993), parents who believed their children's ability is hardly to be changed are less likely to be involved in educational activities, since they do not anticipate improvement for their children through their participation. In other words, parents who believe they will have considerable influence on their children's development are more positive about parent engagement (Eccles & Harold, 1993).

To understand the factors that motivate parents to be involved in their child's education, Hoover-Dempsey and Sandler (1997) conducted a literature review of articles from the field of psychology. Based on the review results, Hoover-Dempsey and Sandler concluded three major factors of parent involvement/engagement: (a) parents' role construction (i.e., what parents believe in their parental roles), (b) parents' sense of efficacy for supporting their children (i.e., what impact the parents believe they can make on their children), and (c) general imitation identified, demands, and opportunities for parental involvement (i.e., do parents perceive themselves been invited and welcomed to be involved in schools or in their children's educational activities). Parental belief plays an essential role in all of the three major factors. For instance, parents who believe schools have the main responsibilities and capacity to support their children in education tend to accept school's decisions for their children, while parents who

regard themselves as effective support for their children tend to be more proactive in engaging in their children's school activities (Lareau, 1987).

Cultures also affect parents' perceptions. For example, Clark (1983) found that parents of high achieving students from low-income black families believed they should be involved in their children's education and in supporting their children's learning. To add on the cultural factors, Young (1998) examined the impact of cultural issues in the development of trust between Mexican American parents and schools in the United States, and indicated the "existence or absence of trust between the home and the school affects the development and sustenance of meaningful parental involvement" (p. 1). Additionally, Young discussed the relationship between trusting relationship and parent engagement in different cultural contexts. For instance, parents in Mexican American culture, who hold the concept of "respeto" (respect), may show agreement with school staff in meetings even though they do not agree with them to show their respect toward the professionals. Young urged that ignoring cultural differences and cultural influences can result in the misperceptions from school side, further hindering parent engagement.

Hirano et al. (2016) examined the factor structure of scales adapted from the Hoover-Dempsey and Sandler (1997) Model with 149 parents of youth (i.e., age 16-21) with disabilities. Researchers conducted exploratory factor analyses to examine the psychometric properties of the scales. Results revealed seven parent motivators for educational involvement, including (a) parent expectation for the future; (b) general school invitations; (c) role construction; (d) perceptions of time and energy; (e) knowledge, skills, and self-efficacy; (f) specific child invitations, and (g) specific teacher invitations. In a more recent study, Hirano et al. (2018) verified the existing factor structure from the Hirano et al. (2016) study with another set of 288

parents of youth (i.e., age 14-23) with disabilities. However, because there was no information on parents' race/ethnicity and there was a disproportionate representation of the participating children's race/ethnicity (i.e., White were 74.7% in the study of Hirano et al., 2018), no comparison was available to understand the relationships between parents and children's demographic information and the parent engagement factors and motivators (Hirano et al., 2018). In addition, this study did not address the importance of culturally responsive practice. To address the gap in current literature, understanding how parents' characteristics, attitudes, beliefs, and perceptions are associated with parent engagement is essential to develop tailored parent engagement strategies based on parents' perspectives.

Summary

Parent engagement affects students' performances through life stages (Fan & Chen, 2001; Henderson & Mapp, 2002; Jeynes 2005, 2007; Pomerantz et al., 2007). In secondary transition, engaging parents refers to parents being active and knowledgeable participants in all aspects of transition planning (Rowe et al., 2013). To facilitate parent involvement and support parents in engaging in educational activities proactively (engagement), researchers have identified frameworks and models for leveraging educational activities for students with and without disabilities. These frameworks include Taxonomy for Transition Programming (Kohler et al., 2016), Seven Principles of Partnership (Turnbull et al., 2015), School-Community Partnership (Epstein et al., 2019), and Conceptual Model for Parent Involvement in Secondary Special Education (Hirano & Rowe, 2016). Researchers also have identified strategies in five domains (i.e., knowledge and skills, communication, collaboration, relationship, and culturally responsive practice) for teachers to improve parent engagement (Epstein et al., 2019; Hirano & Rowe, 2016;

Turnbull et al., 2015). In addition, parents' belief and perceptions have been found to be important factors for considerations when promoting parent engagement.

Summary of the Review of Literature

Students with disabilities continue to show poor in-school and post-school outcomes. To improve the student outcomes of youth with disabilities, studies, theories (i.e., Ecological/Biological theory and Theory of Overlapping Spheres of Influence), and legislations (i.e., ESSA, 2015; IDEA, 2004; NCLB, 2001; WIOA, 2014) have emphasized on the importance of effective family, school, and community collaboration (Bronfenbrenner, 1974; Epstein, 1987). To support effective collaboration, researchers have developed collaboration models to guide the planning and implementation, including the UPS (Hunt et al., 2002), Family-centered Care (Bailey et al., 1992), and CIRCLES (Aspel et al., 1999; Flower et al., 2018; Povenmire-Kirk et al., 2015; Povenmire-Kirk et al., 2015). Within each model, parent engagement remains as one key component to bring about positive outcomes in youth with disabilities (Fan & Chen, 2001; Henderson & Mapp, 2002; Jeynes 2005, 2007; Pomerantz et al., 2007).

In secondary transition, engaging parents refers to parents being active and knowledgeable participants in all aspects of transition planning (Rowe et al., 2013). To facilitate parent involvement and support parents in engaging in their children's educational activities, researchers have identified parent engagement frameworks, essential domains, and effective strategies to improve parent engagement (Epstein et al., 2019; Hirano & Rowe, 2016; NTACT, 2015; Turnbull et al., 2015). Further, parents' belief and perceptions also have been taken into considerations.

Even though many schools commit to providing strategies to engage parents of students with disabilities to improve equal partnership and collaboration (Ferrara & Ferrara, 2005;

Ratcliff & Hunt, 2009), both parents and teachers have reported low rate of parental participation or ineffective parent engagement strategies (Deslandes & Bertrand, 2005; Ratcliff & Hunt, 2009). To date, limited studies exist that explored the application of existing frameworks for involving/engaging parents and addressed parents' perspectives on parent engagement strategies. Hirano et al. (2018) identified the relationships between the level of three parent involvement domains (i.e., home, future planning, school/agency) and eight parent motivators (i.e., expectations for the future, role construction, self-efficacy, child invitations, teacher invitations, general school invitations, knowledge and skills, time and energy). However, Hirano et al. did not include parents' race/ethnicity and there was a disproportionate rate in the children's race/ethnicity (i.e., White were 74.7%). Additionally, this study did not include culturally responsive practice as a motivator factor. Understanding how parents' characteristics, attitudes, beliefs, and perceptions are associated with parent engagement is essential to develop tailored parent engagement strategies based on parents' specific needs. Therefore, this dissertation aims to explore parents' perceptions on school-based parent engagement strategies and the relationships between the parents' perceptions and their demographic information (e.g., race, ethnicity, gender, education, socioeconomic status) using a researcher-developed survey based on existing parent engagement checklists and literatures.

CHAPTER 3: METHOD

The purposes of this dissertation were (a) to explore how parents of youth with disabilities have been exposed to school-based parent engagement practices in secondary transition; (b) to understand parents' perceptions on the school-based parent engagement practices in secondary transition; and (c) to identify the relationships between parents' cultural background (e.g., race, ethnicity, gender) and parents' perceptions of school-based parent engagement practices. The goal of the study was to expand upon the existing research to better inform schools on practices that are deemed as important from parents' perspectives. This chapter presents an overview of the research methodology associated with the research setting and recruitment of participants, survey development, data collection procedure, and data analysis.

Research Design

To answer the research questions, I used a survey research design and conducted an online survey of parents of youth (ages 14-21) with disabilities (n = 642), who were living in the United States. According to Creswell (2013) and Dillman et al. (2014), survey research is an effective way to (a) collect information about multiple individuals at a period of time and (b) identify a numeric description of attitudes and opinions from a representative population. Because the purpose of this study was to make inferences about parents' perceptions of school-based parent engagement strategies and understand the relationships between parents' demographic information and perceptions at a single point in time, a survey was well suited to address the research questions.

Participants and Setting

The intended population for my dissertation was all parents of youth (age 14-21) with disabilities who were living in the United States. This study consisted of a nonprobability sampling methodology, snowball sampling to recruit participants (Baker et al., 2013). I recruited participants from the National Parent Center on Transition and Employment, and local parent centers, which serve parents of individuals with disabilities across the United States. I recruited participants for this survey study via emails and social media. I sent a recruitment email request (Appendix A) to all of the identified centers for them to distribute to their member email listserv. Additionally, I distributed an announcement (Appendix B) for these centers to post on their social media. In the following sections, I described in detail the general steps I followed to arrive at the final study sample.

Participant Eligibility

A participant was eligible to be part of the survey research if (a) they had a child between 14-21 years old (at the time of survey administration) who had an active IEP and was receiving special education services in the United States, (b) they were living in the United States, and (c) they had access to a computer/tablet and WiFi to complete the online survey. The "parent" in this survey was broadly defined as "a natural, adoptive, or foster parent of a child, a guardian, or an individual acting in the place of a natural or adoptive parent (including a grandparent, stepparent, or other relative) with whom the child lives, or an individual who is legally responsible for the child's welfare" (Individuals with Disability Education Act [IDEA], 2004; Sec. 602).

Participant Recruitment Process

I followed six main steps to recruit my study participants. In Step 1, I sent out recruitment requests to related organizations by emailing the National Parent Center on Transition and

Employment and all local parent centers across the United States to request support of participant recruitment (Appendix A). The email included social media post (i.e., one picture and a passage about the study) for the study (consisting of study information and the IRB approval number), a link to the study survey, and my contact information. I also shared an announcement post (Appendix B) for the centers to share on their official websites or social media (e.g., Facebook, Twitter, online newsletter).

In Step 2, I followed up with the organizations by sending a follow-up email to all centers that I did not receive a reply after 2 weeks of the initial contact. I asked the centers to share the recruiting information every 2 weeks until the participants reached the expected sample size, which was equal or larger than 178.

In Step 3, I ensured all the recruiting posts were clear and included a link to a screening form. These posts included a brief description of the study, my contact information, and a link to access a screening form (the same one as the survey link). The purpose of the screening form was to identify the eligibility of the participants. The form included five questions: (a) How old are you? (b) Are you currently living in the United States? (c) How many children between ages 14-21 do you have? (d) Do you have at least one child with disabilities who currently has an individualized education program (IEP) and receives special education services in the United States? (e) How old is your child with disabilities? If more than one, please select all that apply.

In Step 4, I ensured all participants were eligible for the study. If a participant who identified themselves as being younger than 18 years old, living outside of the United States, not having any children between the age of 14 and 21, not having any children with disabilities who currently have an IEP and receive special education services, and the child with disability was not between 14 and 21 years old through the screening questions, they were notified they were

not eligible for the study and would not be able to proceed to the survey. Eligible participants were guided to an informed consent (Appendix C).

In Step 5, I ensured participants completed a consent form before they proceeded to the survey. Eligible participants (based on screening questions) were not instructed to sign the consent form; instead, they were guided to select "yes" to indicate their consent before being directed to the survey.

In Step 6, participants received information about the opportunity for random drawing to receive an incentive. Participants who completed the full survey were invited to participate in a random drawing to receive one of the five $100 Amazon gift cards by voluntarily entering their email address solely for the purpose of the drawing.

To ensure an adequate sample size for conducting linear regression analyses, a power analysis was conducted through G*Power 3.1 (Frul et al., 2009) for detecting statistical significance differences in parent engagement strategies by race and ethnicity. A sample size of 178 participants was necessary to conduct the analyses with .095 statistical power to detect an effect of .15; type one error is fixed at .05. With a planned sample of at least 178 participants, the current study could achieve statistical power of 95% of confidence interval to detect an effect size of .15 or larger. To be conservative, even with the effect size at .15, this study only requires 178 participants to achieve a 95% confidence interval (Cohen, 1988, 1990). In this study, there were 642 effective survey responses.

Survey Development

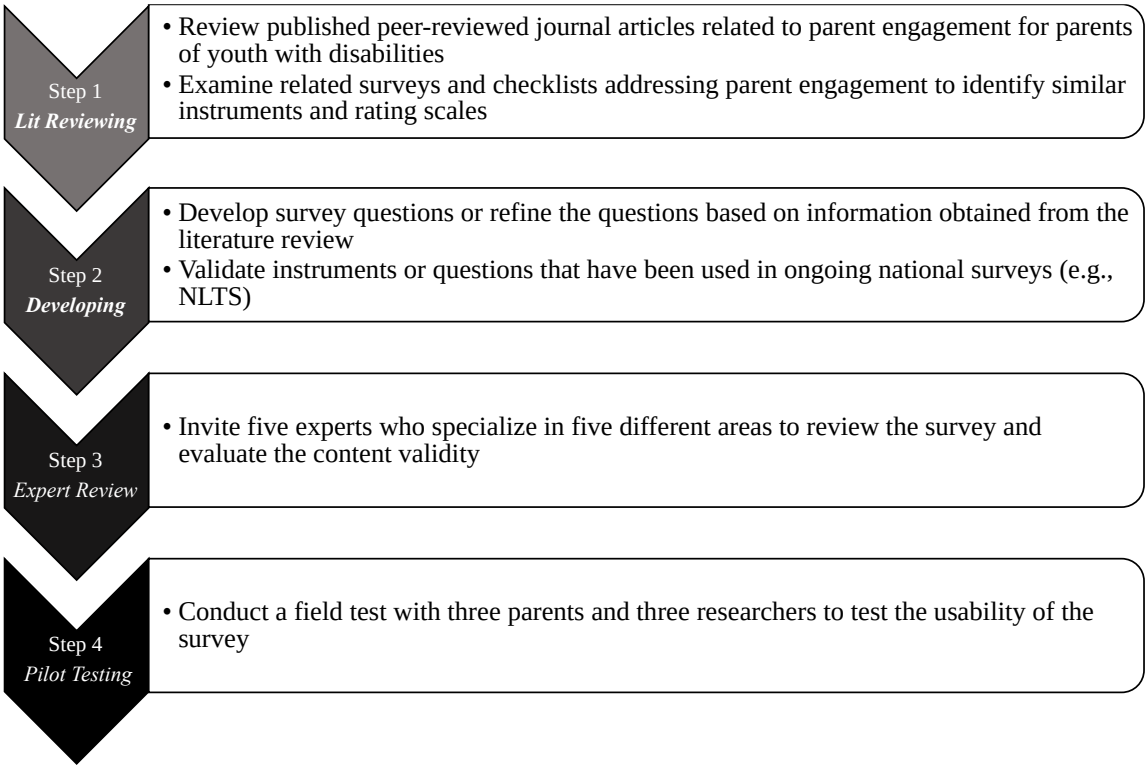
The survey for this dissertation was developed in four steps. In Step 1, I reviewed existing published literature and articles. Then, I reviewed existing comparable survey instruments and checklists. In Step 2, I developed the survey based on current knowledge on

school-based parent engagement. In Step 3, I had expert reviews to ensure the validity and quality of the survey instrument. In Step 4, I conducted a pilot testing of the survey instrument.

The survey items mostly used 6-point Likert scale but also included three open-ended questions to foreshadow the details. Specifically, the survey instrument comprised 52 items. Of the 52 items, 23 were questions in Likert-scale rating, three were open-ended questions, and 26 were demographic questions (Appendix E). Likert scale has been commonly used in research as an attitude scale (Gall et al., 2014). The 23 Likert-scale questions in this survey were regarding parents' experiences and perceptions on school-based parent engagement strategies. Open-ended questions allow for identification of natural responses and avoid potential biases from suggested answers (Reja et al., 2003). The three open-ended questions were to solicit parents' responses on barriers that prevented them from engaging in their child's school activities, additional strategies they found useful, and any final thoughts about their experiences with school-based parent engagement strategies. Figure 2 provides an overview of the four survey development steps.

Figure 2

Survey Development Steps



Step 1: Reviewing Existing Resources

In Step 1, I reviewed published peer-reviewed journal articles related to parent engagement for parents of youth with disabilities. Relevant articles were those that contain information about parent engagement frameworks, parent engagement models, and school-based parent engagement strategies in special education. Further, I examined related surveys and checklists addressing parent engagement to identify similar instruments and rating scales that could be used to create a preliminary version of the survey.

NLTS 2012 Survey. The National Longitudinal Transition Study (NLTS, 2012) was a national survey study of 10,144 youth with and without an IEP in the United States from grades 7 through 12 and 11,853 parents. At the beginning of the survey, there was a brief introduction

about the study and survey questions, a page of consent, and three screening questions (i.e., the youth's gender, knowledge of the youth's birth date, relationship to the youth). The NLTS 2012 survey also addressed questions about (a) student's experiences at school, (b) parent involvement at school, (c) student's abilities, disabilities, and services, (d) experience with the IEP, 504 plan, and school supports, (e) youth's plans for the future, (f) demographics for youth, (g) demographics for parent and household, and (h) contact information for follow up and remainder of consent. Because a purpose of this dissertation was to understand the relationships between parents' characteristics and parents' perceptions/experiences toward school-based parent engagement strategies, I adapted the demographic questions from the NLTS 2012 survey.

NLTS 2012 demographic section contained sections of (a) demographics for youth and (b) demographics for parent and household. The *Demographics for Youth* has 12 questions relate to the youth's (a) use of main language, (b) ethnicity (i.e., Hispanic or Latino), (c) race (i.e., American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White, Don't Know, Refused, No response), (d) living status with their parent (i.e., the one who completed the survey) in the past school year (i.e., All of the time, Some of the time, None of the time, Only during school vacations, Don't know, Refused, No response), (e) living status with others in the past school year, (f) living status in a foster care arrangement, (g) fathering status, (h) marriage status, (i) insurance coverage (i.e., private health insurance from an employer/union or from family), (j) insurance coverage (i.e., other health insurance program), (k) areas that was covered by the insurance (i.e., dental care, vision care, medicines or prescriptions, mental health care), and (l) internet accessibility at home. The *Demographics for Parent and Household* had 13 questions related to the parent's (a) marriage status, (b) the numbers of individuals (age 18 and over) in the household, (c) the numbers of individuals (age under 18) in

the household, (d) the legal guardian's living status in the household (i.e., "Does your mother or father or legal guardian live in this household?"), (e) the highest completed school year/grade, (f) paid job status, (g) spouse/partner's highest completed school year/grade, (h) spouse/partner's paid job status, (i) reception of benefits from the government, (j) reception of food stamps, (k) reception of Supplemental Security Income (SSI) program, (l) income resources, and (m) total of the household income before tax.

For this dissertation, I included most of the demographic questions from the NLTS 2012 survey. Specifically, for the youth's demographic questions, I included 12 questions from the NLTS 2012 survey and exclude the questions about insurance, fatherhood, race, ethnicity, main language, and internet accessibility. For parent's demographic information, I included 10 questions and exclude questions related to (a) spouse/partner's education, (b) spouse/partner's paid job status, and (c) income resources.

The United States Census 2020. The United States census is a survey tool that counts every United States resident every 10 years. The purpose of the United States census is to identify the residence in the United States and to distribute federal funds to states and locals. The questionnaire for the census includes nine demographic questions: (a) the number of people living in the house, (b) the additional people staying but not living in the house, (c) the types of living place (house, apartment, or mobile home), (d) phone number, (e) each person who lives in the house, (f) sex, (g) age, (h) Hispanic, Latino, or Spanish origin, (i) race (White, Black or African American, American Indian or Alaska Native, Asian, Some other race). For this dissertation, to understand further about the parent's background, in addition to the questions I adapted from the NLTS 2012 survey, I asked three more questions adapted from United States Census 2020 related to the parent's (a) biological/assigned sex, (b) identity of ethnicity (i.e.,

Hispanic, Latino, or Spanish origin), and (c) identity of race (i.e., White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian and Pacific Islander, Some other race/races:_____).

Quality Indicators of Exemplary Transition Program Needs Assessment (QI-2). To help determine the most critical needs within transition programs, Morningstar et al. (2012) developed and verified (Morningstar et al., 2016) an assessment tool, which provides service providers or stakeholders with a framework for determining the degree to which their secondary transition program is implementing practices that are likely to lead to more positive post-school outcomes for students with disabilities. Within the assessment tool, there is a specific category that focuses on family involvement. In the category of family involvement, there are six indicators: (a) include family members (including extended family, friends, or legal guardians) who regularly participate in transition planning and IEP meetings; (b) the family's needs and supports are taken into consideration during transition planning; (c) information and training is provided to families about transition; (d) preplanning activities are in place so families can provide input prior to transition meetings; (e) family members are actively involved throughout the transition planning process; and (f) supports are in place to involve family members in transition planning meetings (e.g., flexible time and location, language interpreter). In my dissertation survey, I adapted all the items in this assessment tool and categorized them into one of the five domains (i.e., knowledge and skills, communication, collaboration, relationship, culturally responsive practice). For example, in the QI-2 assessment tool, an original indicator is "Information and training is provided to families about transition" (Morningstar et al., 2012; NCSET, 2011). I adapted this into "Teachers provide me with information regarding parent training opportunities (e.g., workshop, brochure, webinar, online resources)" and categorized this

under the domain of *Knowledge*. In another example, the original QI-2 indicator is "The family's needs and supports are taken into consideration during transition planning" (Hetherington et al., 2010; Morningstar et al., 1995; Morningstar et al., 2012). I adapted this into "Teachers obtain my family and cultural values and beliefs through surveys or interviews to improve their instruction for my child" and categorized this under the domain of *culturally responsive practice*.

Hoover-Dempsey and Sandler (2005) Survey. Hoover-Dempsey and Sandler (2005) developed a survey instrument to understand parent involvement from parents' perceptions. This instrument consisted of nine scale measuring: (a) parental role construction for involvement in the child's education scale, (b) parental self-efficacy for helping the child succeed in school scale, (c) parents' perceptions of general invitations for involvement from the school scale, (d) parents' perceptions of personal knowledge and skills scale, (e) parents' perceptions of personal time and energy scale, (f) parents' perceptions of specific invitations for involvement from the teacher, (g) parents' perceptions of specific invitations for involvement from the child scale, (h) parent report of home-based involvement activities scale, and (i) parent report of school-based involvement activities scale.

Because my dissertation focused on school-based parent engagement strategies, I specifically reviewed the questions from item (c) parents' perceptions of general invitations for involvement from the school scale, and item (f) parents' perceptions of specific invitations for involvement from the teacher and adapted them to make each question item more concrete. For example, an original question from the Hoover-Dempsey and Sandler scale (2005) is "Teachers at this school are interested and cooperative when they discuss my child." I adapted this statement and expanded to "Teachers invite and include me to develop, review, and improve school policies that affect my child." I also integrated a couple of statements from Hoover-

Dempsey and Sandler Scale from the section of (f) parents' perceptions of specific invitations for involvement from the teacher. I included and integrated these statements in my survey questions because: (a) they are all asking questions related to teachers' invitation behaviors, and these behaviors (b) may promote parent engagement in their child's educational activities. One example below shows how I integrated and adapted the statement from Hoover-Dempsey and Sandler Scale into my survey question. The original statements were "My child's teacher asked me or expected me to help my child with homework," "My child's teacher asked me or expected me to supervise my child's homework," "My child's teacher asked me to talk with my child about the school day," and "My child's teacher asked me to help out at the school." I subsumed these four statements into "Teachers invite me to be involved in my child's academic learning activities at home (e.g., the teacher asks my child to complete homework with me)."

Turnbull et al.'s (2015) Seven Principles of Partnership. Turnbull et al. (2015) developed seven principles of partnership framework (i.e., communication, professional competence, respect, commitment, equality, advocacy, trust) to increase parent engagement in education. Turnbull et al. suggested several parent engagement strategies for each of the principles. For communication, they suggested schools to be friendly, listen to the parents, be honest to the parents, and provide and coordinate relevant information. For professional competence, they suggested schools to improve their competence through ongoing learning and set high expectations for their students. For respect, they suggested schools to honor each parent's diverse cultures, affirm the strengths in parents, and treat students and their parents with dignity. For commitment, they suggested schools to be sensitive to parent's emotional needs and be available and accessible for the parents. For equality, they suggested schools to share power with the parents and foster empowerment in parents. For advocacy, they suggested schools to

create win-win solutions between schools and parents, be alert for opportunities to advocate, and form alliances. Finally, for trust, they suggested schools to be reliable to the parents and maintain confidentiality for sensitive information from the parents.

For this dissertation survey, I developed several statements based on the suggestions from Turnbull et al.'s (2015) Seven Principles of Partnership. For instance, Turnbull et al. suggested schools to be sensitive to parent's emotional needs and be available and accessible for the parents. I developed a question statement, "Teachers are available when I have a question regarding my child." Another example is that Turnbull et al. suggested schools to share power with the parents and foster empowerment in parents to ensure equality. In my survey, I developed a statement "Teachers revise my child's education or future plan for teaching strategies based on my feedback."

Epstein et al.'s (2019) School-community Partnerships. Epstein et al. (2019) developed a School-community Partnerships Model. In the model, Epstein et al. proposed six types of involvement and identified strategies for each type to involve parents of youth in school activities. The six types and strategies include: (a) parenting (provide knowledge/training to help parents assist their children); (b) communication (increase home-school two-way channel); (c) volunteering (provide opportunities for volunteers to make a difference in the quality of school and classroom programs and practices); (d) learning at home (involve families with their children in academic learning activities at home that are coordinated with students' classwork and that contribute to student success in school); (e) decision making (include parents and other family and community members in developing, reviewing, and improving school policies and mission statement that affect children and families); and (f) collaborating with the community (draw

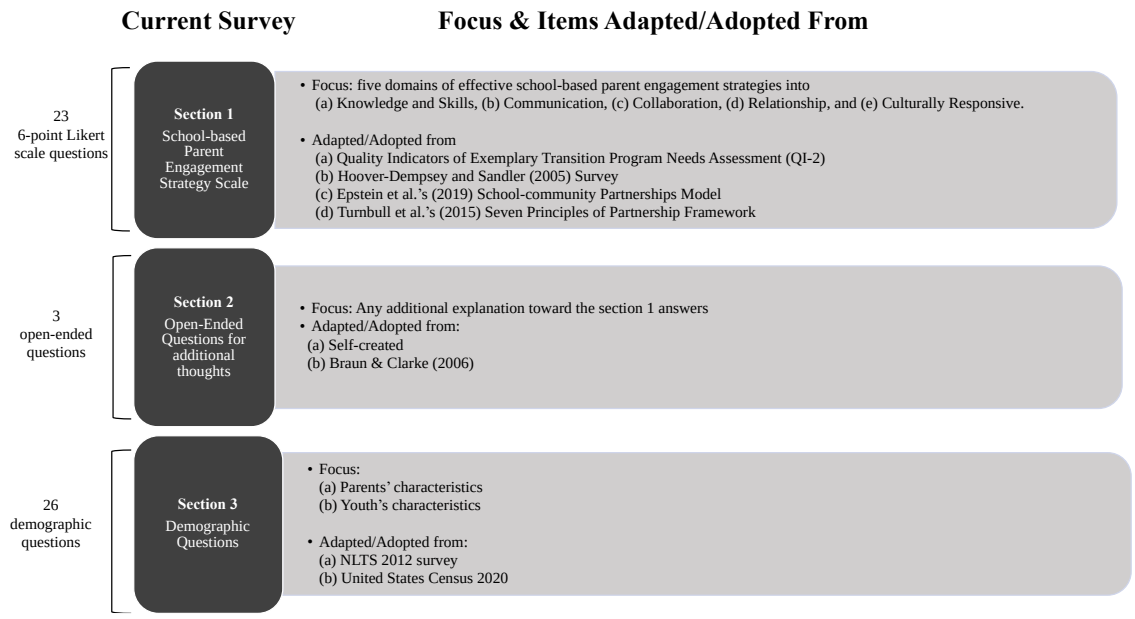
upon and coordinate the work and resources of community businesses, cultural, civic, and religious organizations).

In this dissertation survey, I developed some of my survey questions based on the strategies Epstein et al. (2019) suggested. For example, Epstein et al. proposed parenting as one of the six types of parent involvement and suggested schools to provide knowledge/training to help parents to assist their children. I adapted this to develop my survey statements, “Teachers provide me with information regarding parent training opportunities (e.g., workshop, brochure, webinar, online resources);” and “Teachers provide me with resources related to my child’s services and community resources (e.g., internship opportunities, volunteers, job shadowing).”

Figure 3 below presents the links between the existing resources (i.e., the model, framework, checklist, survey) and the focus areas of the researcher-developed survey for this dissertation. More details were explained in the Step 2 section.

Figure 3

The Links between Existing Resources and Focus Areas of This Survey



Step 2: Developing the Survey

In Step 2, I developed survey questions or refine the questions based on information obtained from the literature review. As shown in the above figure, this survey consisted of 52 questions (i.e., 23 Likert-scale questions, three open-ended questions, and 26 questions about demographic information). Validated instruments or questions that have been used in ongoing national surveys (e.g., NLTS) or previous studies were adopted in this study.

The survey for this dissertation included three sections. The first section of the survey included 23 questions addressing 23 school-based parent engagement strategies. The strategies are identified based on the Quality Indicators of Exemplary Transition Program Needs Assessment (QI-2, Morningstar et al., 2012), Parent Involvement Activity Scale (Hirano et al., 2016), and parent engagement frameworks (Epstein et al., 2019; Hirano & Rowe, 2016; Kohler

et al., 2016; Turnbull et al., 2015). Under each strategy, participants rated the degree to which they had been provided with each of the school-based parent engagement strategy, and the degree to which they believed each of the strategy was helpful.

The second section, consisting of three open-ended questions, provided opportunities for participants to express their positive and negative experiences toward school-based parent engagement strategies that were not identified under the first section. The third section focused on parents and their youth's demographic information (e.g., race, ethnicity, gender, socioeconomic, education). The demographic questions were retrieved from existing surveys from NLTS (2012) and the United States Census 2020 with some adaptations.

School-based Parent Engagement Strategy Scale. This scale belongs to the first section of the survey. Based on parent engagement frameworks and models, I categorized effective school-based parent engagement strategies into five domains: (a) Knowledge and Skills, (b) Communication, (c) Collaboration, (d) Relationship, and (e) Culturally Responsive Practice. Knowledge and skills refer to parents' competence in supporting their children (Hirano & Rowe, 2016), such as parents know what community services are for their transition age children. In school-based parent engagement strategies, knowledge and skills can be defined as resources or training school provides to increase parents' knowledge and skills. Communication refers to teacher-initiated parent-teacher communication (Epstein et al., 2019; Turnbull et al., 2015). In school-based parent engagement strategies, communication can be viewed as efforts teachers make to share thoughts and experiences with parents. For instance, teachers invite parents to join their children's IEP meetings and have conversations regarding their children's secondary transition plan. Collaboration refers to partnerships between school and parents. In school-based parent engagement strategies, collaboration can be defined as school facilitating effective

collaborations among parent, school, other professionals, service providers, and the community (Epstein et al., 2019). Relationship refers to teachers regarding parents as equal partners and providing parents with equal or more opportunities to contribute to their children' educational decision along the way (Epstein et al., 2019; Turnbull et al., 2015). Culturally responsive practice refers to teachers valuing parents' cultural backgrounds and approaching the parents with respect on their differences (Gay, 2001; Grant & Ray, 2018; Turnbull et al., 2015).

Under the section of the School-based Parent Engagement Strategy Scale, participants reported their experiences and perceptions toward each of the identified parent engagement strategies. Parents' experiences and perceptions toward parent involvement can influence their beliefs and behaviors on school-based parent involvement (Hoover-Dempsey & Sandler, 1997). For the self-reported experiences, parents rated the degree to which they had been provided with each of the school-based parent engagement strategies, and how frequently they had been provided with each strategy. Participants rated their experiences on a 6-point Likert scale ranging from *never*, *rarely*, *occasionally*, *often*, *always*, to *not applicable*. For the self-reported perceptions, parents rated their opinion on helpfulness of each school-based parent engagement strategies on a 6-point Likert scale ranging from *Not at all helpful*, *Slightly helpful*, *Moderately helpful*, *Very helpful*, *Extremely helpful*, to *not applicable*.

Open-ended Questions. Three open-ended questions allowed the participants to express openly with additional explanation. According to Braun and Clarke (2006), open-ended questions allow participants to share their thoughts toward a specific topic. The three open-ended questions included: (a) What barriers could you identify that may prevent you from engaging in your child's school activities? and (b) What are other strategies that are not listed above but you think are helpful for engaging you in your child's educational/school activities? (c) Additionally,

at the end of the survey (i.e., after the section of demographic questions), participants had a final opportunity to describe anything else they would like to share about their experiences with school-based parent engagement strategies.

Demographic Questions. The demographic questions contained 26 questions that were adapted from the NLTS 2012 survey and one race/ethnicity question that was adopted from the United States Census 2020. This section included two categories of questions. The first category was about the parent, regarding their gender, ethnicity, race, marriage status, relationship to the youth, education, socioeconomic status, geographical location, employment status, frequency of their participation in their child's school activities, and satisfaction with school. The second category was about the youth, pertaining to their living situation, disability category, gender, student status, school location, in-school status, grade level, and whether or not receiving special education services.

Step 3: Expert Review

Once an initial survey was developed, I invited five experts to review the survey and evaluate the content validity. The five expert reviewers included: (a) a parent of youth with disabilities who met the participant inclusion criteria, (b) an expert researcher in secondary transition for individuals with disabilities, (c) an expert in survey research, (d) a specialist in parent engagement, and (e) an expert in culturally responsive practices. The reviewers were asked to provide feedback for clarity and coherence of the questions by attending to a list of guiding questions (See Appendix D). For instance, the reviewers were asked "How long did it take you to complete this survey?" "Does this survey demonstrate relevance and cover a given area of content or ability?" and "To what extent is this survey consistent with predictions that I made on the basis of parent engagement frameworks and models?" Suggestions from the

reviewers were incorporated into the final survey. For example, a reviewer suggested the value of addressing how COVID-19 impacts parents' school involvement. Another reviewer recommended changing "Culturally Sustaining Practice" to "Culturally Responsive Practice" to capture the knowledge of school using cultural knowledge and experiences to make school experiences more relevant and effective for the parents.

Step 4: Conducting Pilot Testing

In the last step of the survey design, I tested the usability of the survey by conducting a field test with three parents and three researchers. Additional revisions were made to the instrument based on feedback received from the parents and researchers. For example, I added "Not applicable" to each parent engagement strategy question as an option. This might decrease the chance of forcing participants to rank any scores that is not applicable to them. In addition, I converted one Matrix question for parent experience and parent perception individually into side-by-side one Matrix questions to combine the two different set of questions. The purpose was to reduce the survey response time. The finalized items then were formatted for administration through the Qualtrics.

Survey Administration

After obtaining the IRB approval, I used an online survey system, Qualtrics, to disseminate survey and collect survey data. As an incentive to encourage participation, each eligible participant who completed the survey was invited to enter to a random drawing for a chance to receive one of five $100 Amazon gift cards. The survey remained open until I obtained at least 178 complete responses. The recruitment and survey administration process took 4 weeks (between January 6, at 12 pm and February 6 at 12 pm) and I recruited 642 effective respondents.

Data Analysis

The purpose of this study was to (a) evaluate the associations of parent perceptions and school-based parent engagement strategies, and to (b) identify barriers and facilitators for parent engagement. I also examined race/ethnicity, socioeconomic, gender, and education as potential moderators. In order to address the proposed research questions, I conducted analysis for both quantitative and qualitative data. Prior to data analyses, all raw data were cleaned and screened for the problems of assumptions of normality, missing data, and outliers.

Data Cleaning

Data were obtained between January 6, 2021 at 12 A.M. and February 6, 2021 at 12 A.M. By 12 A.M. on February 6, 2021, I downloaded recorded data and those with 98% completion rates in the in-progress list from the online survey system, namely Qualtrics, with total of 1,420 responses. The anonymous survey link has been shared 1,417 times online. The raw data were cleaned and screened for the following problems prior to running analyses: not eligible data, no consent data, duplicate IP address, and suspected repeated respondent. I cleaned the data through seven steps (See Table 1). The identified data based on the data cleaning steps were eliminated from the sample, which resulted in a final sample of 642 cases.

Table 1

Data Cleaning Steps

Step	Excluded responses	Exclude responses	Remaining responses
1	212	Progress rate under 75% (not include 75%) or blank	1,208
2	6	Consent but disagreed to start the survey	1,202
3	4	Eligibility- Currently not living in the United States	1,198
4	15	Eligibility- Not having children with disabilities	1,183
5	101	Eligibility- Not having children age 14-21 with disabilities	1,082
6	241	Subsequent survey entries using the same IP address (i.e., retain the earliest and first survey entry)	841
7	199	Subsequent survey entries with exact same responses for the three open-ended questions (i.e., retain the earliest and first survey entry) • This step includes a second coder to ensure the exclusive processes are objective. • Exclusion criteria: o Two or more responses from the three open-ended questions had exact same wording o Two or more responses from the three open-ended questions had similar wording (i.e., same word counts but with different use of verbs, nouns, or adjectives) o Two or more responses from the three open-ended questions shared the same responses regardless of the question (e.g., parent 1's response to question 2 is the same as parent 2's response to question 3, parent 1's response to question 3 is the same as parent 2's response to question 2) • Additional consideration o Check the gender/race, ethnicity from the excluded responses to see if they are the same o Check the start/end/recorded data and time. If the time frames are at the same time or very close, I tend to identify them as potential fraud • Intercoder Reliability (ICR) and coding process o First coder coded the 841 responses independently (1- eligible, 0-not eligible). With the results of 212 responses out of 841 responses are not eligible responses o Second coder reviewed all the 212 not eligible responses and coded each of them independently (1-eligible, 0-not eligible). With 27 unsure responses. ICR=87%. o The second coder suggested 13 cases, which had similar but not exact same content to be "eligible." The two coders discuss about the disagreement and come into ICR=100%. o In this stage, 199 responses were identified and excluded due to potentially coming from the same respondents.	642

Assumption of Normality

In order to run a t-test to compare different groups' mean scores for this study, assumption of normality needs to be met (Boneau, 1960). Skewness and kurtosis are two ways to determine the distribution of data as normal or non-normal (Kline, 2011). These statistics were evaluated for the data in the current study based on the acceptable ranges: skewness: -1 to +1 (Bulmer, 1979) and kurtosis: -2 to +2 (George & Mallery, 2010). Before running analysis, data were checked for normality of the responses for each strategy. Results of descriptive analysis showed skewness of the data ranged from -.386 to .007 and kurtosis ranged from -.73 to .62 for scale items, which indicated scale items were normally distributed. Therefore, I used an independent-samples *t*-test (compare means, with the assumption of normality) to compare the experiences and perceptions from the White group and other race/ethnicity groups. In addition to addressing the assumption of normality, I also tested and confirmed there were adequate sample size to detect statistical differences between race/ethnicity groups, and there was no violation against homogeneity of variance.

Missing Data

The survey in this study consisted of 46 scale items, 26 demographic questions, and three open-ended questions for a total of 75 items. During the data cleaning process, I identified 15% (n = 212) of the total survey entries (N = 1,420) with a completion rate of less than 75% of the survey items, and I excluded these survey entries as a potentially important signal for missing data. Among the participants in the final sample (N = 642), 77% (n = 492) of participants completed 98% of the survey items whereas 23% (n = 145) of respondents completed 100% of the survey items.

Outliers

In order to run linear regression analysis, responses were screened for outliers that can bias the results (Yuan & Bentler, 2001). This study applied boxplot to examine the Interquartile Range (IQR) potential outliers. The IQR is the spread of the middle 50% of the data values (Q3 – Q1). Using the 1.5 x IRQ Rule, an outlier is any value below Q1 – 1.5 IQR (lower limit) or any value above Q + 1.5 IQR (upper limit). Boxplot results showed that among the 46 scale items, there were four outliers each in 44 items and one outlier each across two items. Because the 46 item scales are Likert-scale questions, the identified outliers were not removed from the data analysis sample.

Analytic Sample

The final survey sample (i.e., those participants who completed at least 75% of survey scale items) included 642 parents of youth (14-21 years) with disabilities. The distribution of the participants across the states is compared with the U.S. 2020 Census and reported in Table 2. This study's state population are proportionate to the U.S. state population (U.S. 2020 Census). Participant demographic information is reported in Table 3. The majority of parents completing the survey identified themselves as non-Hispanic White (48.6%), married (88.0%), age between 35 and 44 (55.6%), with college, associate or bachelor's degree (70.4%), and household per year income between $50,000-$79,999 (31.0%). Gender of female and male were split pretty evenly in the sample (50.0% vs. 49.8%).

Table 2

U.S. State Population Distribution vs. Sample State Distribution

2020 U.S. Census- Population (*N*=334,735,155)		Current Study Sample (*N*=642)		
State	%	State	*n*	%
California	11.8%	California	95	14.8%
Texas	8.7%	Texas	83	12.9%
Florida	6.4%	Ohio	48	7.5%
New York	6.0%	New York	31	4.8%
Pennsylvania	3.9%	Alabama	21	3.3%
Illinois	3.8%	Florida	20	3.1%
Ohio	3.5%	Georgia	20	3.1%
Georgia	3.2%	North Carolina	20	3.1%
North Carolina	3.1%	Arizona	19	3.0%
Michigan	3.0%	Colorado	18	2.8%
New Jersey	2.8%	Illinois	18	2.8%
Virginia	2.6%	Oklahoma	17	2.6%
Washington	2.3%	Kansas	15	2.3%
Arizona	2.1%	Massachusetts	15	2.3%
Massachusetts	2.1%	Michigan	15	2.3%
Tennessee	2.1%	Oregon	15	2.3%
Indiana	2.0%	Alaska	12	1.9%
Maryland	1.8%	Guam	12	1.9%
Missouri	1.8%	Idaho	12	1.9%
Wisconsin	1.8%	Utah	12	1.9%
Colorado	1.7%	Indiana	10	1.6%
Minnesota	1.7%	Iowa	10	1.6%
South Carolina	1.5%	Missouri	9	1.4%
Alabama	1.5%	Arkansas	8	1.2%
Louisiana	1.4%	Wisconsin	8	1.2%
Kentucky	1.3%	Delaware	7	1.1%
Oregon	1.3%	New Mexico	7	1.1%
Oklahoma	1.2%	District of Columbia	6	0.9%
Connecticut	1.1%	Nevada	6	0.9%
Puerto Rico	1.0%	Mississippi	5	0.8%
Utah	1.0%	Pennsylvania	5	0.8%
Iowa	1.0%	Hawaii	4	0.6%
Nevada	0.9%	Louisiana	4	0.6%

2020 U.S. Census- Population (*N*=334,735,155)		Current Study Sample (*N*=642)		
State	%	State	*n*	%
Arkansas	0.9%	New Jersey	4	0.6%
Mississippi	0.9%	Tennessee	4	0.6%
Kansas	0.9%	Connecticut	3	0.5%
New Mexico	0.6%	Maryland	3	0.5%
Nebraska	0.6%	Montana	3	0.5%
Idaho	0.5%	Virginia	3	0.5%
West Virginia	0.5%	American Samoa	2	0.3%
Hawaii	0.4%	Minnesota	2	0.3%
New Hampshire	0.4%	South Carolina	2	0.3%
Maine	0.4%	Nebraska	1	0.2%
Rhode Island	0.3%	New Hampshire	1	0.2%
Montana	0.3%	Rhode Island	1	0.2%
Delaware	0.3%	Wyoming	1	0.2%
South Dakota	0.3%			
North Dakota	0.2%			
Alaska	0.2%			
District of Columbia	0.2%			
Vermont	0.2%			
Wyoming	0.2%	Missing	5	0.8%
Total	99%	Total	637	99.3%

Note. Ranking % is from high to low.

Table 3

Parents' Demographic Information across All Participants (N = 642)

Variables	*n*	%
Race or ethnicity		
Non-Hispanic White	312	48.6
Non-Hispanic Black	51	7.9
Hispanic	202	31.5
Others (American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, Prefer not to answer)	74	11.5
Gender		
Female	321	50.0
Male	320	49.8
Marital status		
Married	565	88.0
Divorced	32	5.0
Widowed	17	2.6
Separated	11	1.7
Never married	10	1.6
Others (Unmarried couple, Prefer not to answer)	5	0.8
Age		
18-24	18	2.8
25-29	57	8.9
30-34	86	13.4
35-44	357	55.6
≥45	117	18.2
Household per year income		
<$15,000	10	1.6
$15,000-$29,999	64	10.0
$30,000-$49,999	146	22.7
$50,000-$79,999	199	31.0
$80,000-$129,999	181	28.2
≥$130,000	32	5.0
Prefer not to answer	8	1.2
Highest education degree attained		
Less than a high school diploma	26	4.0
High school diploma or equivalency	40	6.2
College, associate, bachelor's degree	452	70.4
Master's degree	90	14.0
Professional (MD, JD, DDS, etc.)	15	2.3
Doctorate (PhD, EdD)	14	2.2
Other	3	0.5

Note. For some variables, the percentage does not add up to 100% due to missing data.

To understand each race/ethnicity's demographic variables, all six races/ethnicities (Non-Hispanic White, Non-Hispanic Black, Hispanic, Asian, Native Hawaiian or Pacific Islander, American Indian or Alaska Native) were categorized into four categories (i.e., Non-Hispanic White, Non-Hispanic Black, Hispanic, Other). Participant demographic information across race/ethnicity information is reported in Table 4. In general, compared to Non-Hispanic White parents, parents of colors showed higher rates of high school diploma or equivalency or less than a high school diploma (Non-Hispanic White = 7%; Non-Hispanic Black = 12%; Hispanic = 15%) and lower household per year income above $50,000 (Non-Hispanic White = 69%; Non-Hispanic Black = 57%; Hispanic = 66%).

According to the 642 parents, majority of their youth with disabilities were male (59.2%) and Non-Hispanic White (48.2%). Most of the youth were self-identified the same race/ethnicity as their parents. Close to 75% of respondents reported that their child was eligible for free or reduced lunch. Most of the youth's grade level was in 9th (26.9%) and 10th (25.5%) grades. Most of the parents indicated their child was receiving special education services under the classification of Autism Spectrum Disorder (10.3%), Other Health Impairment (9.7%), Orthoepic Impairment (7.0%), Emotional Disturbance (6.5%), Hearing Impairment (6.1%), or Speech or Language Impairment (5.5%), with 44.1% of youths having more than one disability. Table 5 provides the youth's demographic information.

Table 4

Parents' Demographic across Four Major Race/Ethnicity Categories (N = 642)

Variables	Non-Hispanic White *n* = 312 (49%)	Non-Hispanic Black *n* = 51 (8%)	Hispanic *n* = 202 (31%)	Others *n* = 74 (12%)
Gender				
Female	165 (53%)	30 (59%)	83 (41%)	43 (50%)
Male	147 (47%)	21 (41%)	120 (59%)	32 (43%)
Marital status				
Married	284 (91%)	38 (75%)	186 (92%)	57 (77%)
Divorced	11 (4%)	7 (14%)	6 (3%)	8 (11%)
Widowed	5 (2%)	2 (4%)	7 (3%)	17 (3%)
Separated	5 (2%)	2 (4%)	1 (1%)	11 (2%)
Never married	4 (1%)	1 (2%)	2 (1%)	3 (2%)
Age				
18-24	5 (2%)	3 (6%)	6 (3%)	4 (5%)
25-29	20 (6%)	7 (14%)	18 (9%)	12 (16%)
30-34	35 (11%)	10 (20%)	25 (12%)	16 (22%)
35-44	174 (56%)	20 (39%)	132 (65%)	31 (42%)
≥45	77 (25%)	11 (22%)	20 (10%)	9 (12%)
Household per year income				
<$15,000	5 (2%)	0 (0%)	3 (2%)	2 (3%)
$15,000-29,999	17 (5%)	6 (12%)	22 (11%)	19 (26%)
$30,000-49,999	69 (22%)	16 (31%)	43 (21%)	18 (24%)
$50,000-79,999	102 (33%)	18 (35%)	65 (32%)	14 (19%)
$80,000-129,999	94 (30%)	8 (16%)	61 (30%)	18 (24%)
≥$130,000	18 (6%)	3 (6%)	8 (4%)	3 (4%)
Highest education degree attained				
Less than a high school diploma	8 (3%)	1 (2%)	16 (8%)	1 (1%)
High school diploma or equivalency (GED)	11 (4%)	5 (10%)	14 (7%)	10 (14%)
College, associate, bachelor's degree	224 (72%)	38 (76%)	139 (69%)	51 (69%)
Master's degree	53 (17%)	4 (8%)	27 (13%)	6 (8%)
Professional (MD, JD, DDS, etc.)	8 (3%)	2 (4%)	3 (2%)	2 (3%)
Doctorate (PhD, EdD)	5 (2%)	1 (2%)	4 (2%)	4 (5%)

Note. For some variables, the percentage does not add up to 100% due to missing data.

Table 5

Youth's Demographic Variables (N = 642)

Variables	*n*	%
Race or ethnicity		
Non-Hispanic White	309	48.1
Non-Hispanic Black	53	8.3
Hispanic	203	31.6
Others (American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, prefer not to answer)	76	11.8
Gender		
Female	257	40.0
Male	380	59.2
Grade level		
8th grade	95	14.8
9th grade	173	26.9
10th grade	164	25.5
11th grade	108	16.8
12th grade	54	8.4
Other	13	2.0
Not in school	30	4.7
Receiving free or reduced lunch		
Yes	478	74.5
No	158	24.6
Disability		
Autism spectrum disorder	66	10.3
Other health impairment	62	9.7
Orthopedic impairment	45	7.0
Emotional disturbance	42	6.5
Hearing impairment	39	6.1
Speech or language impairment	35	5.5
Specific learning disability	31	4.8
Intellectual disability	16	2.5
Visual impairment, including blindness	9	1.4
Deafness	5	0.8
Multiple disabilities	5	0.8
Traumatic brain injury	3	0.5
Deaf - blindness	1	0.2
Chose more than one	283	44.1

Note. For some variables, the percentage does not add up to 100% due to missing data.

Quantitative Data

To gain a basic understanding of the parent profile in the sample, I conducted descriptive statistical analyses of key demographic and background variables using SPSS software. These background variables included (a) parents' gender, race/ethnicity, marital status, relationship with the identified youth, education level, social economic status, working status, living location, children's educational participation level, satisfaction level toward school, and (b) youth's gender, ethnicity, living location, disability categories, school location, special education reception status. I conducted descriptive statistics (i.e., Pearson's chi-square tests and Two-group *t* tests) for categorical variables and continuous variables.

In addition to the descriptive statistics, I conducted multiple logistic or linear regression models to adjust for confounders. I employed a multivariate analysis of variance (MANOVA) to examine the differences among parents in their responses to the survey with respect to each demographic variable. Specifically, I conducted logistic regressions for dichotomous outcomes, and linear regressions for Likert scale outcomes. Models were control for parental age, race/ethnicity, gender, residence, and education attainment.

Descriptive analyses were conducted using Microsoft Excel and SPSS for Mac. All raw data were cleaned and screened for assumption of normality and missing data before running analyses.

Qualitative Data

The three open-ended questions were coded with inductive, thematic analysis (Miles et al., 2014). Thematic analysis "involves the searching across a data set….to find repeated patterns of meaning" (Braun & Clarke, 2006, p. 86). According to Braun and Clarke (2006), complete

steps of qualitative thematic analysis include: (a) transcription, (b) prepare coders, (c) analysis, and (d) theme generation.

The transcription refers to downloading and cleaning data and assigning number codes. The prepare coders step refers to describing positioning statement and reflecting on study biases. The analysis refers to reviewing raw data, discussing preliminary patterns, unitizing raw data, developing preliminary open codes, coding data, checking reliability of coding, resolving discrepancies, analyzing codes, and subsuming codes into major categories. The theme generation refers to establishing overarching themes and defining mutually exclusive themes. Once the themes have been identified, the first coder needs to check themes against the original data set to ensure the results can represent the data.

To identify facilitators and barriers of parent engagement from parents' perceptions, I followed nine steps to generate main categories and theme (See Figure 4).

Step One. I recruited one university staff who specialized in thematic qualitative methodology as the second coder.

Step Two. The second coder and I reviewed relevant articles and literature on parent engagement in secondary transition.

Step Three. The second coder and I reviewed raw data several times to become familiar with the data.

Step Four. I identified ineligible survey responses and constructed inclusion and exclusion criteria (i.e., any responses with random typing or hard-to-understand words were excluded, such as "jijijijijjjij"). The second coder reviewed the inclusion and exclusion criteria and confirmed the included and excluded responses.

Step Five. The second coder and I discussed preliminary patterns and resolve any discrepancies.

Step Six. I inserted all data in a word documents, assigned each participant a number for coding, and identified units as the basis for reporting analyses. The second coder reviewed each of the units to ensure they were identifiable messages. Then, the second coder and I resolved any discrepancies together.

Step Seven. I developed preliminary open codes with the second coder and discussed discrepancies.

Step Eight. I developed codebook 1 with two main categories (i.e., facilitator, barrier) and 24 subcategories (i.e., children disabilities, children willingness, family stress of daily living, family limited resources, family lack of cultural capital, family low self-efficacy, school racism and discrimination, schools prevent families from becoming empowered, school poor transition programming, school unfriendly learning, school teachers' enthusiasm, adult service low expectations and deficit-based view of students, adult service lacks of viable postschool options, adult service lacks of respect and value of caregivers, pandemic/health/policy restricted by the COVID-19, other barriers, specific child invitations, family knowledge/skills/self-efficacy, family expectations for the future, family role construction, family time and energy, general school invitations, specific teacher invitations, other facilitators) and definitions for each code. The second coder and I used the codebook 1 to code data independently, check our reliability, and discuss agreements and disagreements.

In addition to the subcategories from the codebook 1, I identified five more subcategories (i.e., lack of resources to support, lack of emotional support, lack of flexibility of scheduling, teacher enthusiasm, and school activities) under the same two main categories (i.e., barrier,

facilitator), which became codebook 2. The second coder and I used the codebook 2 to code data independently, check our reliability, discuss discrepancies, talk about agreements and disagreements.

The second coder and I repeated the process (i.e., merged/developed new categories, coded data independently, checked intercoder reliability, resolved discrepancies, and updated the old codebook) seven times until we developed codebook 7. Codebook 7 contained nine main categories (i.e., children, family, school/teacher, adult service, pandemic/health/policy, weather factors, good experiences with nothing to say, others, and wait for later coding) and 18 subcategories (i.e., children's disability/characteristics, children-centered, children's interactions/relationships with their family/parents, family's stress of daily living, family's knowledge/belief/cultural capital, teacher/school shows care, school/teacher provides support or empowers parents and students, school provides activities/events/curriculum, school/teacher prepares the transition process, adult service has low expectations and deficit-based view of students, adult service lacks viable postschool options, adult service lacks respect and value of caregivers, COVID-19, technology used, weather factors, good experiences with nothing to say, others, wait for later coding).

The second coder and I both agreed the categories in the codebook 7 were inclusive enough to include the data in the category and exclusive enough from the other categories. I downloaded all final 642 responses from the three open-ended questions (i.e., What barriers could you identify that may prevent you from engaging in your child's school activities? What are other strategies that are not listed above but you think are helpful for engaging you in your child's educational/school activities? Is there anything else you would like to tell us about your experiences with school-based parent engagement strategies?). The second coder and I used the

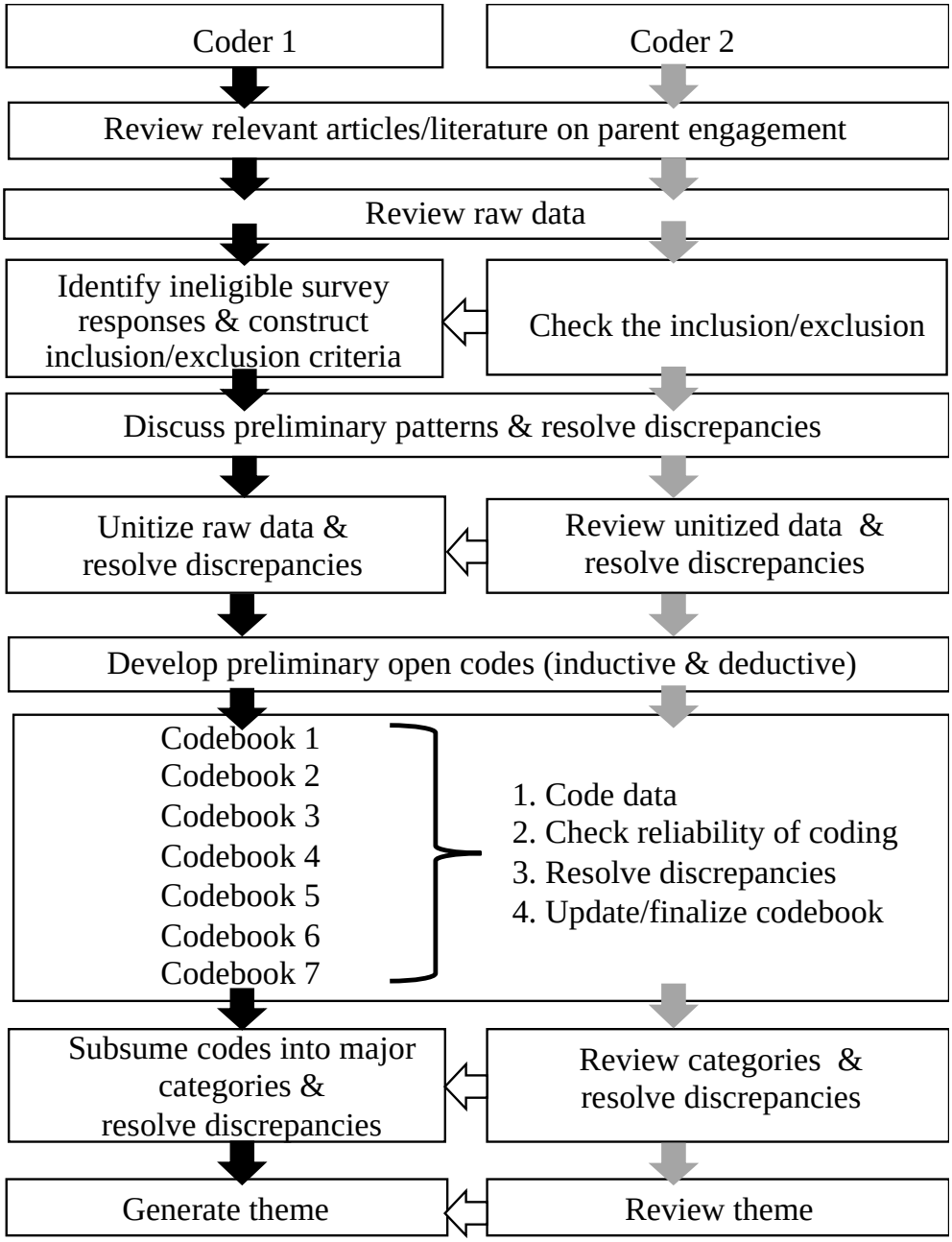
codebook 7 to code the responses independently. The second coder coded the first 30% of the total data for intercoder reliability. The results of inter-coder reliability were 84%.

Step Nine. I imported all codes into NVivo and subsumed the codes into five major categories (i.e., knowledge and skills, communication, collaboration, relationship, culturally responsive) and generate theme (i.e., school-based, system-based, home-based, and existing situations). The second coder reviewed the categories and theme, and we resolve discrepancies.

To ensure the validity and reliability of the qualitative research, researchers suggested using qualitative criterion to check and document the process (Kyngäs et al., 2011). One frequently used qualitative criterion was Checklist for Researchers Attempting to Improve the Trustworthiness of a Content Analysis Study (Elo et al., 2014). This checklist identified three phases of the content analysis study: (a) preparation phase, (b) organization phase, (c) reporting phase. Under each phase, it suggests 29 questions for researchers to check their process. For example, under preparation phase, during data collection phase, researchers could self-reflect "how do I collect the most suitable data for my content analysis?" Other examples under the organization phase and reporting phase are, "What is the degree of interpretation in the analysis" and "Are the results reported systematically and logically?" To warrant the trustworthiness of the qualitative study for my dissertation. I applied this qualitative criterion (Elo et al., 2014) and documented every step throughout the coding and interpreting phases.

Figure 4

Qualitative Coding Procedure



Hypothesized Results

I hypothesized that parents' race and ethnicity would be associated with their perceptions in specific domains of school-based parent engagement practices. I hypothesized that the parents from the minority and socioeconomically disadvantaged groups were more likely to view these practices to be useful. Specifically, there might be significant relationships between the minority and socioeconomically disadvantaged parents and the parent engagement strategies under the Culturally Responsive Practice domain.

Anticipated Complication and Handling Strategies

Conducting an online survey could encounter multiple complications. Two major complications are (a) low participation rate and (b) multiple responses to the survey. One way to increase the participation rate is to consider and address participants' costs and benefits (Dillman et al., 2014; Singer, 2011). For this study, all eligible participants who completed at least 90% of the survey items had the opportunity to enter into a random drawing. The participants had the chance to receive one of the five $100 Amazon gift cards. If I did not collect 178 participants within 2 weeks from parent centers and transition centers, I would start to share the survey information to parent support groups through the social media (e.g., Facebook parent groups and Twitters) and families or friends who have children with disabilities. To decrease the multiple response rate, I enabled the tracking function in the survey system (i.e., Qualtrics), which identified participants' IP address. If one IP address showed on more than one survey, that participant was eliminated from both the lottery drawing and data analysis. By eliminating duplicate responses through excluding responses from the same IP addresses could also exclude the different responses from the same family (or who share the same computer/laptop when taking the survey). This approach was one limitation resulting from data cleaning.

Ethical Considerations

Prior to any recruitment effort and data collection, I obtained an approval from the institutional review board (IRB). Surveys were administered online through an online survey system (i.e., Qualtrics). At the start of the survey, participants were asked to read an informed consent, including an explanation of the research purpose, researcher's contact information, and study voluntary statement before proceeding to the survey. All participants were assured of confidentiality and complete anonymity.

CHAPTER 4: RESULTS

This chapter includes the findings of the study in relation to each of the three research questions. Before conducing data analyses, missing data were identified, coded, and excluded. In addition, the assumption of normality has been confirmed.

Research Questions 1: How have parents of youth with disabilities been exposed to each of the school-based practices in secondary transition?

Results from the quantitative analyses showed a mean range from 3.35 to 3.75 (with 1 being "never" and 5 being "always") and *SD* range from .92 to 1.10 for the items associated with respondents' exposure to school-based practices in secondary transition. The three strategies with the highest means were "Teachers communicate with me clearly (e.g., avoid use of jargon, talk clearly)" (M = 3.75), "Teachers revise my child's education or future plan or teaching strategies based on my feedback" (M = 3.75), and "Teachers are available when I have a question regarding my child" (M = 3.74). Among the three strategies with highest ratings, one was under the *Knowledge and Skills* domain and two were under the *Communication* domain. The three strategies with the lowest means were "Teachers obtain my family and cultural values and beliefs through surveys or interviews to improve their instruction for my child" (M = 3.35), "Teachers initiate conversations with me about my culture and family background" (M = 3.38), and "Teachers connect me with other service providers or community agencies (e.g., community businesses, religious organizations based my child's needs)" (M = 3.41). Among the three strategies with the lowest means, one was under the *Collaboration* domain and two were under the *Relationship* domain. Refer to Table 6 for respondents' means and standard deviations for each of the strategies by domains.

Table 6

Means and Standard Deviations of Parents' Exposure to Each Strategy across the Five Domains

Domains and Strategies	*N*	*M*	*SD*
Knowledge & Skills			
1. Provide information regarding parent training	633	3.45	0.99
2. Answer questions regarding students' needs	632	3.67	0.93
3. Provide resources related to students' services	633	3.55	1.00
4. Coordinate/integrate resources regarding students' needs	634	3.59	0.92
5. Communicate with parents clearly	635	3.75	0.96
Communication			
6. Invite parents to their child's IEP meetings	632	3.71	0.98
7. Provide notes to keep parents updated	630	3.64	0.99
8. Share transition assessment results	623	3.69	0.98
9. Are available when parents have questions	633	3.74	0.94
10. Revise students' education/future plan/teaching based on parents' feedback	636	3.75	0.95
Collaboration			
11. Connect parents with service providers or agencies	633	3.41	1.01
12. Invite and include parents to improve school policies	633	3.45	1.06
13. Invite parents to be involved in their child's academic learning activities at home	636	3.57	0.99
14. Check-in with parents regarding their wellbeing	638	3.48	1.10
15. Express care and sensitive to parents' emotional needs	636	3.52	1.01
Relationship			
16. Identify students' strengths	633	3.66	0.95
17. Consult with parents about effective strategies for students	634	3.58	0.97
18. Initiate conversations with parents about their culture and family background	632	3.38	1.09
19. Obtain parents' cultural values and beliefs	629	3.35	1.08
20. Provide flexible meeting schedules	634	3.59	0.99
Culturally Responsive Practice			
21. Provide childcare during meetings	603	3.44	1.05
22. Show interest to family's values and beliefs	630	3.53	1.06
23. Provide a safe space for parents to share thoughts	631	3.68	0.98

Research Questions 2: What are the parents' perceptions on each of the school-based practices in secondary transition?

Results of items addressing parents' perceptions showed a mean range from 3.32 to 3.66 (with 1 being "not at all helpful" to 5 being "extremely helpful) and *SD* range from .99 to 1.10. The three strategies with the highest means were "Teachers are available when I have a question regarding my child." (*M* = 3.66), "Teachers communicate with me clearly (e.g., avoid use of jargon, talk clearly)" (*M* = 3.65), and "Teachers revise my child's education or future plan or teaching strategies based on my feedback." (*M* = 3.60). Among the three strategies with highest ratings, one was under the *Knowledge and Skills* domain and two were under the *Communication* domain. The four strategies with the lowest mean scores (three strategies were tied) were "Teachers initiate conversations with me about my culture and family background." (*M* = 3.32), "Teacher provide me with information regarding parent training opportunities (e.g., workshop, brochure, webinar, online resources)." (*M* = 3.34), "Teachers connect me with other service providers or community agencies (e.g., community businesses, religious organizations) based my child's needs." (*M* = 3.34), and "Teachers provide childcare or some equivalent supports when I come to school for meetings or training." (*M* = 3.34). Among the strategies with the lowest ratings, one was under the *Knowledge and Skills* domain, one under the *Collaboration* domain, one under the *Relationship* domain, and one under the *Culturally Responsive* domain. Refer to Table 7 for respondents' means and standard deviations for each of the perceived strategies by domains.

Table 7

Means and Standard Deviations of Parents' Perceptions toward Each Strategy across the Five Domains

Domains and Strategies	*N*	*M*	*SD*
Knowledge & Skills			
1. Provide information regarding parent training	632	3.34	0.99
2. Answer questions regarding students' needs	636	3.50	1.07
3. Provide resources related to students' services	627	3.51	1.07
4. Coordinate/integrate resources regarding students' needs	630	3.55	1.04
5. Communicate with parents clearly	632	3.65	1.08
Communication			
6. Invite parents to their child's IEP meetings	638	3.56	1.04
7. Provide notes to keep parents updated	636	3.56	1.06
8. Share transition assessment results	626	3.58	1.07
9. Are available when parents have questions	638	3.66	1.03
10. Revise students' education/future plan/teaching based on parents' feedback	635	3.60	1.01
Collaboration			
11. Connect parents with service providers or agencies	632	3.34	1.03
12. Invite and include parents to improve school policies	633	3.40	1.08
13. Invite parents to be involved in their child's academic learning activities at home	637	3.44	1.06
14. Check-in with parents regarding their wellbeing	628	3.49	1.06
15. Express care and sensitive to parents' emotional needs	630	3.44	1.07
Relationship			
16. Identify students' strengths	638	3.49	1.02
17. Consult with parents about effective strategies for students	638	3.48	1.04
18. Initiate conversations with parents about their culture and family background	627	3.32	1.08
19. Obtain parents' cultural values and beliefs	624	3.42	1.06
20. Provide flexible meeting schedules	636	3.41	1.10
Culturally Responsive Practice			
21. Provide childcare during meetings	607	3.34	1.05
22. Show interest to family's values and beliefs	636	3.44	1.06
23. Provide a safe space for parents to share thoughts	636	3.54	1.08

Research Questions 3: What are the relationships between parents' demographic background and parents' experiences/perceptions of school-based practices?

Parents' Experiences by Race/Ethnicity

Parents' reported experiences of each of the school-based practices were compared across the four major race/ethnicity categories. Results showed parents of non-Hispanic White had higher mean rages (3.31 to 3.93) than non-Hispanic Black (3.30 to 3.78), Hispanic (3.25 to 3.63), and other race/ethnicity groups (3.48 to 3.82).

Non-Hispanic White. Results from respondents who reported being non-Hispanic White showed a mean range from 3.31 to 3.93 (with 1 being "never" and 5 being "always") and *SD* range from 0.86 to 1.18. The three strategies with the highest means were "Teachers invite me to my child's IEP meeting through my preferred methods (e.g., phone call, text, email)." (*M* = 3.93), "Teacher communicate with me clearly (e.g., avoid use of jargon, talk clearly)" (*M* = 3.86), and "Teachers are available when I have a question regarding my child." (*M* = 3.86). Among the three strategies with highest ratings, one was under the *Knowledge and Skills* domain and two were under the *Communication* domain. The four strategies with the three lowest means were "Teachers obtain my family and cultural values and beliefs through surveys or interviews to improve their instruction for my child." (*M* = 3.31), "Teachers initiate conversations with me about my culture and family background" (*M* = 3.36), "Teachers provide me with information regarding parent training opportunities (e.g., workshop, brochure, webinar, online resources)." (*M* = 3.43), and "Teachers connect me with other service providers or community agencies (e.g., community businesses, religious organizations) based on my child's needs)." (*M* = 3.43). Among the four strategies with lowest ratings, one was under the *Knowledge and Skills* domain, one under the *Collaboration* domain, and two under the *Relationship* domain.

Non-Hispanic Black. Results from respondents who reported being non-Hispanic Back showed a mean range from 3.30 to 3.78 and an *SD* range from 0.94 to 1.18. The four strategies with the three highest means were “Teachers provide childcare or some equivalent supports when I come to school for meetings or training.” (*M* = 3.78), “Teachers are available when I have a question regarding my child.” (*M* = 3.72), “When discussing my child’s schoolwork or performance, teachers identify my child’s strengths” (*M* = 3.66), and “Teachers revise my child’s education or future plan or teaching strategies based on my feedback.” (*M* = 3.66). Among the four strategies with the highest ratings, two were under the *Communication* domain, one was under the *Relationship* domain, and one was under the *Culturally Responsive Practice* domain. The three strategies with the lowest means were “Teachers express care and sensitivity to my emotional needs (e.g., provide comforting words or encouragement when I express my emotions).” (*M* = 3.30), “Teachers obtain my family and cultural values and beliefs through surveys or interviews to improve their instruction for my child.” (*M* = 3.36), and “Teachers provide me with resources related to my child's services and community resources (e.g., internship opportunities, volunteers, job shadowing)” (*M* = 3.43). Among the three strategies with lowest ratings, one was under the *Knowledge and Skills* domain, one was under the *Collaboration* domain, and one was under the *Relationship* domain.

Hispanic. Results from respondents who reported being Hispanic showed a mean range from 3.25 to 3.63 and an *SD* range from 0.84 to 1.05. The three strategies with the highest means were “Teacher communicate with me clearly (e.g., avoid use of jargon, talk clearly).” (*M* = 3.63), “Teachers revise my child’s education or future plan or teaching strategies based on my feedback.” (*M* = 3.63), and “Teachers consult with me about effective strategies that myself and my family have used with success” (*M* = 3.60). Among the three strategies with lowest means,

one was under the *Knowledge and Skills* domain, one was under the *Communication* domain, and one was under the *Relationship* domain. The three strategies with the lowest means were "Teachers provide childcare or some equivalent supports when I come to school for meetings or training." (M = 3.25), "Teachers connect me with other service providers or community agencies (e.g., community businesses, religious organizations) based my child's needs." (M = 3.32), and "Teachers initiate conversations with me about my culture and family background" (M = 3.31). Among the three strategies with the lowest means, one was under the *Collaboration* domain, one was under the *Relationship* domain, and one was under the *Culturally Responsive Practice* domain.

Others. Results from respondents who reported other ethnicities other than non-Hispanic White, Non-Hispanic Black, and Hispanic indicated a mean range from 3.48 to 3.82 and an *SD* range from 0.89 to 1.22. The four strategies with the highest means (two were tied with the same mean score) were "Teachers share transition assessment results with me." (M = 3.82), "Teachers answered my questions regarding my children's needs or if did not know the answer to a question sought out information to answer the question." (M = 3.81), "Teachers communicate with me clearly." (M = 3.79), and "Teachers revise my child's education or future plan or teaching strategies based on my feedback." (M = 3.79). Among the four strategies with highest means, two were under the *Knowledge and Skills* domain and two were under the *Communication* domain. The four strategies with the lowest means (two were tied with the same mean score) were "Teachers connect me with other service providers or community agencies (e.g., community businesses, religious organizations) based my child's needs." (M = 3.48), "Teachers express care and sensitivity to my emotional needs (e.g., provide comforting words or encouragement when I express my emotions)." (M = 3.50), "Teachers obtain my family and

cultural values and beliefs through surveys or interviews to improve their instruction for my child." (*M* = 3.51), and "Teachers provide childcare or some equivalent supports when I come to school for meetings or training" (*M* = 3.51). Among the four strategies with the lowest means, two were under the *Collaboration* domain, one was under the *Relationship* domain, and one was under the *Culturally Responsive Practice* domain. Refer to Table 8 for respondents' means and standard deviations for each of the strategies by domains by four major race/ethnicity groups (i.e., Non-Hispanic White, Non-Hispanic Black, Hispanic, and Others).

Table 8

Means and Standard Deviations of Parents' Experiences regarding Each Strategy across the Five Domains by Four Major Race/Ethnicity Groups

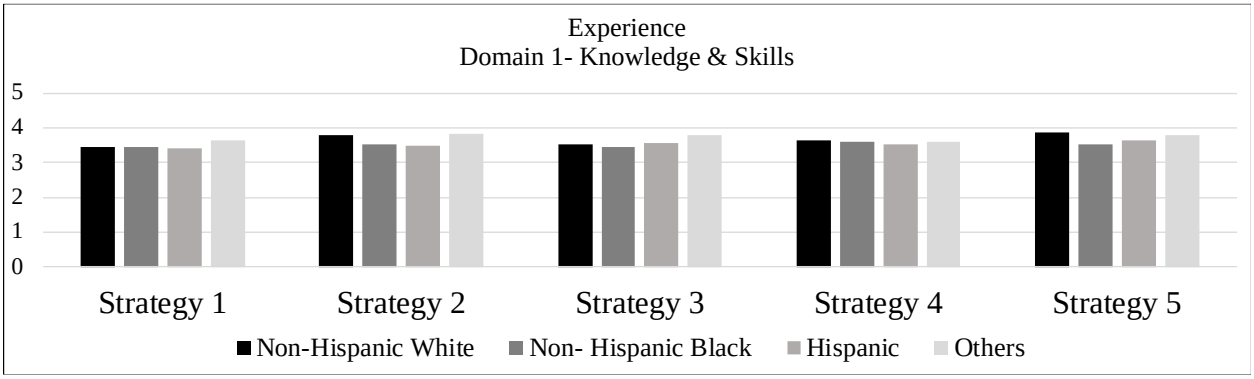
Domains	Strategies	Non-Hispanic White	Non-Hispanic Black	Hispanic	Others
		Mean (SD)			
Knowledge & Skills	1. Provide information regarding parent training	3.43 (1.05)	3.46 (1.01)	3.40 (0.89)	3.65 (0.97)
	2. Answer questions regarding students' needs	3.78 (0.86)	3.52 (1.11)	3.50 (0.96)	3.81 (0.91)
	3. Provide resources related to students' services	3.51 (1.03)	3.43 (1.17)	3.55 (0.94)	3.78 (0.89)
	4. Coordinate/integrate resources regarding students' needs	3.62 (0.93)	3.58 (1.05)	3.53 (0.84)	3.61 (0.96)
	5. Communicate with parents clearly	3.86 (0.92)	3.52 (1.07)	3.63 (0.95)	3.79 (1.02)
Communication	6. Invite parents to their child's IEP meetings	3.93 (0.88)	3.59 (0.94)	3.37 (1.05)	3.76 (0.99)
	7. Provide notes to keep parents updated	3.72 (0.99)	3.63 (0.96)	3.51 (0.98)	3.68 (0.99)
	8. Share transition assessment results	3.80 (0.91)	3.51 (1.14)	3.52 (0.97)	3.82 (1.04)
	9. Are available when parents have questions	3.86 (0.87)	3.72 (1.03)	3.56 (0.93)	3.72 (1.09)

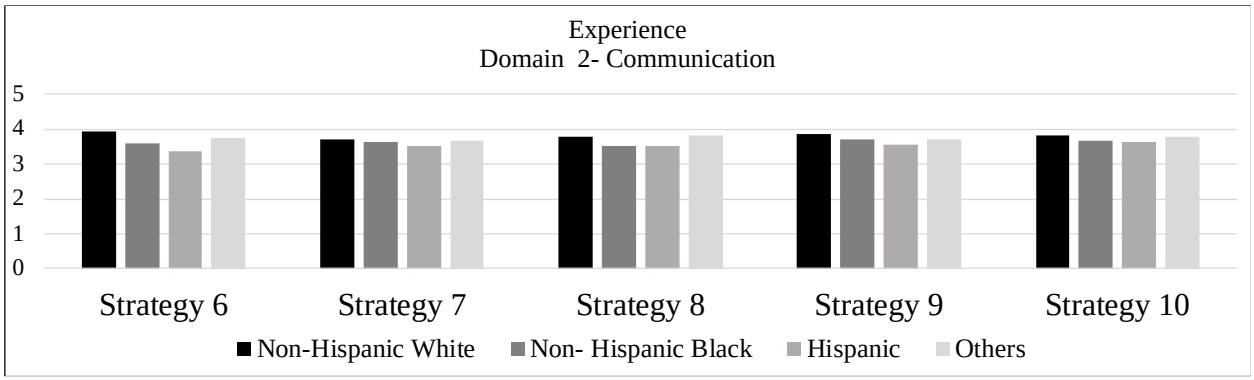
		Non-Hispanic White	Non-Hispanic Black	Hispanic	Others
	10. Revise students' education/future plan/teaching based on parents' feedback	3.83 (0.95)	3.66 (1.06)	3.63 (0.91)	3.79 (0.94)
Collaboration	11. Connect parents with service providers or agencies	3.43 (1.01)	3.57 (1.01)	3.32 (0.97)	3.48 (1.11)
	12. Invite and include parents to improve school policies	3.45 (1.16)	3.47 (1.03)	3.42 (0.92)	3.53 (1.01)
	13. Invite parents to be involved in their child's academic learning activities at home	3.62 (0.97)	3.51 (1.10)	3.49 (1.01)	3.59 (0.95)
	14. Check-in with parents regarding their wellbeing	3.52 (1.13)	3.51 (1.03)	3.38 (1.03)	3.55 (1.22)
	15. Express care and sensitive to parents' emotional needs	3.57 (1.01)	3.30 (1.15)	3.49 (1.01)	3.50 (0.94)
Relationship	16. Identify students' strengths	3.77 (0.88)	3.66 (0.94)	3.45 (1.00)	3.75 (1.02)
	17. Consult with parents about effective strategies for students	3.58 (0.98)	3.56 (1.11)	3.60 (0.93)	3.58 (0.96)
	18. Initiate conversations with parents about their culture and family background	3.36 (1.14)	3.48 (1.07)	3.31 (0.99)	3.59 (1.09)
	19. Obtain parents' cultural values and beliefs	3.31 (1.18)	3.36 (1.08)	3.36 (0.92)	3.51 (1.03)
	20. Provide flexible meeting schedules	3.64 (0.98)	3.59 (1.06)	3.48 (0.96)	3.66 (1.03)
Culturally Responsive Practice	21. Provide childcare during meetings	3.51 (1.05)	3.78 (1.01)	3.25 (0.98)	3.51 (1.20)
	22. Show interest to family's values and beliefs	3.58 (1.09)	3.63 (0.94)	3.40 (1.02)	3.57 (1.12)
	23. Provide a safe space for parents to share thoughts	3.83 (0.90)	3.63 (1.18)	3.47 (1.00)	3.73 (0.96)

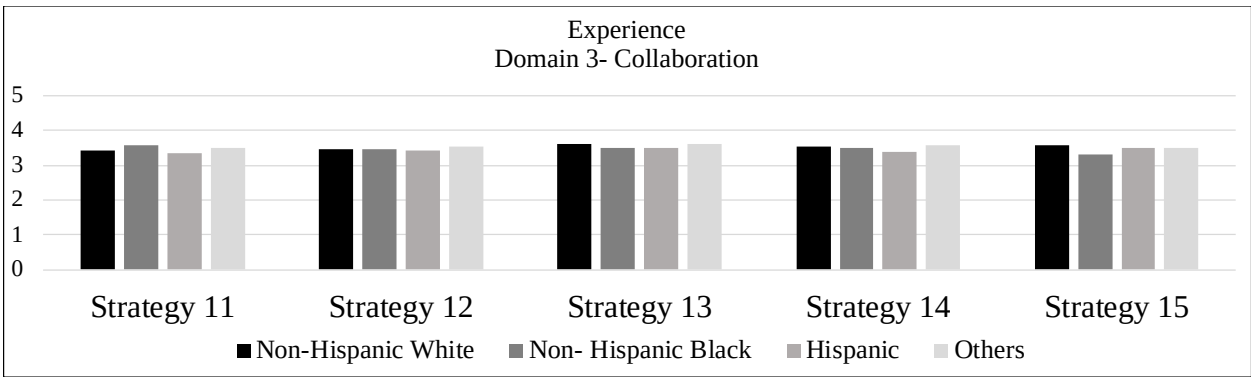
Figure 5 visually illustrates parents' experience toward each of the 23 school-based parent engagement strategies in five domains (i.e., Knowledge and Skills, Communication, Collaboration, Relationship, and Culturally Responsive Practice) across parents' race/ethnicity (i.e., Non-Hispanic White, Non-Hispanic Black, Hispanic, and Others). In general, groups of Non-Hispanic White and Others appear to report higher experiences of being provided strategies by schools/teachers across the five domains. For example, under the *Communication* domain, the group of Non-Hispanic White generally reported higher mean scores in all strategies than the other race/ethnicity groups. Groups of Non-Hispanic Black and Hispanic appear to report lower means of being engaged by schools/teachers with strategies related to *Communication* and *Knowledge and Skills.* Compared to the other race groups (i.e., Non-Hispanic White, Non-Hispanic Black, and Others), group of Hispanic rated fewer levels of experiences of being provided the parent engagement strategies across the five domains.

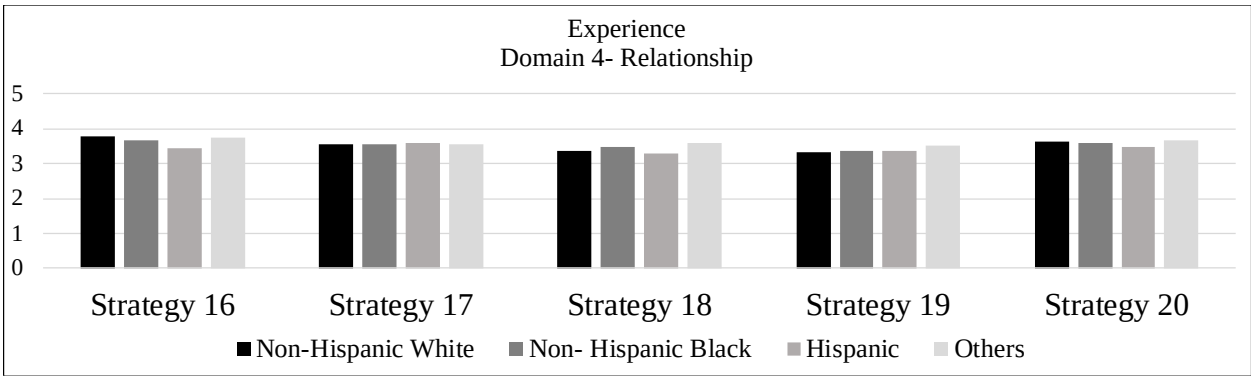
Figure 5

Means of Parents' Experience/Exposure toward Each Strategy across the Five Domains by Race/Ethnicity









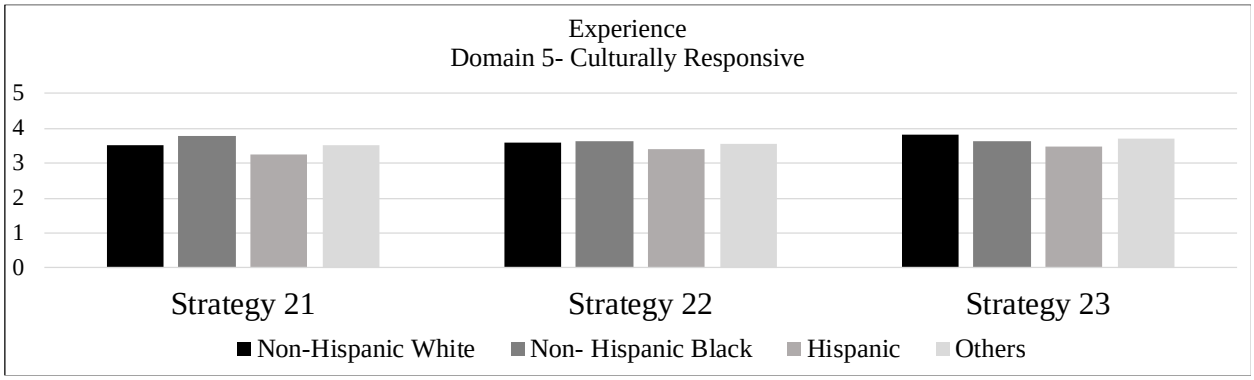
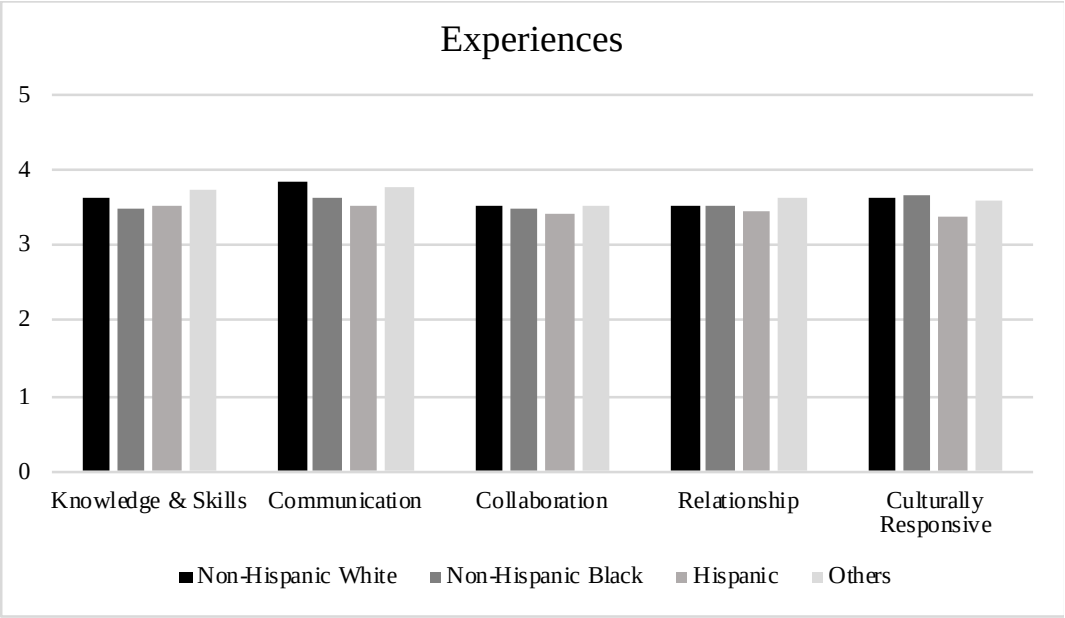


Figure 6 visually illustrates parents' experience toward each of the five domains of school-based parent engagement strategies (i.e., Knowledge and Skills, Communication, Collaboration, Relationship, and Culturally Responsive Practice) across parents' race/ethnicity (i.e., Non-Hispanic White, Non-Hispanic Black, Hispanic, and Others). In general, groups of Non-Hispanic White and Others appear to report higher levels of experiences of being provided strategies by schools/teachers across the five domains. Groups of Non-Hispanic Black and Hispanic appear to report lower means of being engaged by schools/teachers with strategies, particularly in the *Knowledge and Skills* domain and in the *Communication* domain. Compared to the other race groups (i.e., Non-Hispanic White, Non-Hispanic Black, and Others), the group of Hispanic had the lowest ratings of experiences of being provided the parent engagement strategies in four of the five domains (i.e., *Communication, Collaboration, Relationship*, and *Culturally Responsive Practice*).

Figure 6

Means of Parents' Experience/Exposure toward Each Domain by Race/Ethnicity



Independent-Samples *t*-test. To understand the differences in the mean scores of parents' experiences toward school-based strategies between Non-Hispanic White and the other races/ethnicities (i.e., Non-Hispanic Black, Hispanic, and Others), an independent-samples *t*-test was conducted. Results showed significant differences between the group of Non-Hispanic White and all the other race/ethnicity groups. The significant differences between Non-Hispanic White and Non-Hispanic Black were in the scores of strategy 5 ($M1=3.86$, $M2=3.52$, $p<0.05$) and strategy 6 ($M1=3.93$, $M2=3.59$, $p<0.05$). Similarly, significant differences between groups of Non-Hispanic White and Hispanic were in the scores of strategy 5 ($M1=3.86$, $M3=3.63$, $p<0.05$) and strategy 6 ($M1=3.93$, $M3=3.37$, $p<0.05$). Finally, significant differences between groups of Non-Hispanic White and Others were in the scores of strategy 2 ($M1=3.78$, $M4=3.81$, $p<0.01$), strategy 5 ($M1=3.86$, $M4=3.79$, $p<0.01$), strategy 6 ($M1=3.93$, $M4=3.76$, $p<0.001$), strategy 7

(*M*1=3.72, *M*4=3.68, $p<0.05$), strategy 8 (*M*1=3.80, *M*4=3.82, $p<0.01$), strategy 9 (*M*1=3.86, *M*4=3.72, $p<0.001$), strategy 10 (*M*1=3.83, *M*4=3.79, $p<0.05$), strategy 16 (*M*1=3.77, *M*4=3.75, $p<0.001$), and strategy 23 (*M*1=3.83, *M*4=3.73, $p<0.001$). Refer to Table 9 for the independent-samples *t*-test results regarding parents' experience/exposure toward school-based strategies by race/ethnicity.

Table 9

Independent-Samples t-Test Results regarding Parents' Experiences toward School-based Parent Engagement Strategies by Race/Ethnicity

	White	Black	Hispanic	Others
Strategies	Mean (*SD*)			
1. Provide information regarding parent training	3.43 (1.05)	3.46 (1.01)	3.40 (0.89)	3.65 (0.97)
2. Answer questions regarding students' needs	3.78 (0.86)	3.52 (1.11)	3.50 (0.96)	3.81 (0.91)**
3. Provide resources related to students' services	3.51 (1.03)	3.43 (1.17)	3.55 (0.94)	3.78 (0.89)
4. Coordinate/integrate resources regarding students' needs	3.62 (0.93)	3.58 (1.05)	3.53 (0.84)	3.61 (0.96)
5. Communicate with parents clearly	3.86 (0.92)	3.52 (1.07)*	3.63 (0.95)*	3.79 (1.02)**
6. Invite parents to their child's IEP meetings	3.93 (0.88)	3.59 (0.94)*	3.37 (1.05)*	3.76 (0.99)***
7. Provide notes to keep parents updated	3.72 (0.99)	3.63 (0.96)	3.51 (0.98)	3.68 (0.99)*
8. Share transition assessment results	3.80 (0.91)	3.51 (1.14)	3.52 (0.97)	3.82 (1.04)**
9. Are available when parents have questions	3.86 (0.87)	3.72 (1.03)	3.56 (0.93)	3.72 (1.09)***
10. Revise students' education/future plan/teaching based on parents' feedback	3.83 (0.95)	3.66 (1.06)	3.63 (0.91)	3.79 (0.94)*
11. Connect parents with service providers or agencies	3.43 (1.01)	3.57 (1.01)	3.32 (0.97)	3.48 (1.11)
12. Invite and include parents to improve school policies	3.45 (1.16)	3.47 (1.03)	3.42 (0.92)	3.53 (1.01)

Strategies	White	Black	Hispanic	Others
	Mean (*SD*)			
13. Invite parents to be involved in their child's academic learning activities at home	3.62 (0.97)	3.51 (1.10)	3.49 (1.01)	3.59 (0.95)
14. Check-in with parents regarding their wellbeing	3.52 (1.13)	3.51 (1.03)	3.38 (1.03)	3.55 (1.22)
15. Express care and sensitive to parents' emotional needs	3.57 (1.01)	3.30 (1.15)	3.49 (1.01)	3.50 (0.94)
16. Identify students' strengths	3.77 (0.88)	3.66 (0.94)	3.45 (1.00)	3.75 (1.02)***
17. Consult with parents about effective strategies for students	3.58 (0.98)	3.56 (1.11)	3.60 (0.93)	3.58 (0.96)
18. Initiate conversations with parents about their culture and family background	3.36 (1.14)	3.48 (1.07)	3.31 (0.99)	3.59 (1.09)
19. Obtain parents' cultural values and beliefs	3.31 (1.18)	3.36 (1.08)	3.36 (0.92)	3.51 (1.03)
20. Provide flexible meeting schedules	3.64 (0.98)	3.59 (1.06)	3.48 (0.96)	3.66 (1.03)
21. Provide childcare during meetings	3.51 (1.05)	3.78 (1.01)	3.25 (0.98)	3.51 (1.20)
22. Show interest to family's values and beliefs	3.58 (1.09)	3.63 (0.94)	3.40 (1.02)	3.57 (1.12)
23. Provide a safe space for parents to share thoughts	3.83 (0.90)	3.63 (1.18)	3.47 (1.00)	3.73 (0.96)***

*p <0.05
**p <0.01
***p <0.001

Parents' Perception by Race/Ethnicity

Parents' reported perception of each of the school-based practices were compared across the four major race/ethnicity categories. Results showed that parents of non-Hispanic White had higher mean rage (3.43 to 3.84) than non-Hispanic Black (3.20 to 3.65), Hispanic (3.16 to 3.50), and other race/ethnicity groups (2.97 to 3.53).

Non-Hispanic White. Results from respondents who reported being non-Hispanic White showed a mean range from 3.43 to 3.84 (with 1 being "not at all helpful" to 5 being "extremely helpful") and an *SD* mean from 0.94 to 1.09. The three strategies with the highest mean scores

were “Teachers are available when I have a question regarding my child.” (*M* = 3.84), “Teacher communicate with me clearly (e.g., avoid use of jargon, talk clearly).” (*M* = 3.81), and “Teachers invite me to my child’s IEP meeting through my preferred methods (e.g., phone call, text, email).” (*M* = 3.77). Among the three strategies with the highest mean scores, one was under the *Knowledge and Skills* domain and two were under the *Communication* domain. The three strategies with the lowest means were “Teachers provide me with information regarding parent training opportunities (e.g., workshop, brochure, webinar, online resources).” (*M* = 3.42), “Teachers initiate conversations with me about my culture and family background” (*M* = 3.44), and “Teachers connect me with other service providers or community agencies (e.g., community businesses, religious organizations) based my child’s needs” (*M* = 3.45). Among the three strategies with the lowest means, one was under the *Knowledge and Skills* domain, one was under the *Collaboration* domain, and one was under the *Relationship* domain.

Non-Hispanic Black. Results from respondents who reported being non-Hispanic Black indicated a mean range from 3.20 to 3.65 and an *SD* mean from 0.79 to 1.11. The three strategies with the highest means were “Teacher communicate with me clearly (e.g., avoid use of jargon, talk clearly).” (*M* = 3.65), “Teachers provide me with information regarding parent training opportunities (e.g., workshop, brochure, webinar, online resources).” (*M* = 3.64), and “Teachers are available when I have a question regarding my child.” (*M* = 3.63). Among the three strategies with the highest ratings, two were under the *Knowledge and Skills* domain and one was under the *Communication* domain. The three strategies with the lowest means were “Teachers check-in with me regarding myself and my family’s wellbeing.” (*M* = 3.20), “Teachers show continuous interest to me/my family’s values and beliefs (e.g., ask what beliefs I have and my family has toward my child’s education and future).” (*M* = 3.20), and “Teachers connect me with other

service providers or community agencies (e.g., community businesses, religious organizations) based my child's needs" (*M* = 3.25). Among the three strategies with the lowest means, two were under the *Collaboration* domain, one was under the *Culturally Responsive Practice* domain.

Hispanic. Results from respondents who reported being Hispanic indicated a mean range from 3.16 to 3.50 and an *SD* range from 1.02 to 1.16. The three strategies with highest mean scores were "Teachers provide me with resources related to my child's services and community resources (e.g., internship opportunities, volunteers, job shadowing). (*M* = 3.50), "Teacher communicate with me clearly (e.g., avoid use of jargon, talk clearly)." (*M* = 3.50), and "Teachers provide a safe space for me to share my thoughts when holding apparent teacher meeting (e.g., does not share my or my child's private information with others without my permissions)." (*M* = 3.48). Among the three strategies with the highest ratings, two were under the *Knowledge and Skills* domain and one was under the *Culturally Responsive Practice* domain. The three strategies with the lowest means were "Teachers provide me with information regarding parent training opportunities (e.g., workshop, brochure, webinar, online resources)." (*M* = 3.16), "Teachers initiate conversations with me about my culture and family background" (*M* = 3.18), and "Teachers provide childcare or some equivalent supports when I come to school for meetings or training" (*M* = 3.22). Of the three strategies with the lowest ratings, one was under the *Knowledge and Skills* domain, one was under the *Relationship* domain, and one was under the *Culturally Responsive Practice* domain.

Others. Results from respondents who reported ethnicities other than non-Hispanic White, Non-Hispanic Black, and Hispanic indicated a mean range from 2.97 to 3.53 and an *SD* range from 1.01 to 1.23. The three strategies with the highest mean scores were "Teachers revise my child's education or future plan or teaching strategies based on my feedback." (*M* = 3.53),

"Teachers are available when I have a question regarding my child." (*M* = 3.40), and "Teachers answered my questions regarding my children's needs or if did not know the answer to a question sought out information to answer the question.)." (*M* = 3.40). Of the three strategies with the highest means, one was under the *Knowledge and Skills* domain and two were under the *Communication* domain. The four strategies with the lowest means (two were tied) were "Teachers invite and include me to develop, review, and improve school policies that affect my child." (*M* = 2.97), "Teachers provide flexible schedules for me to participate in activities." (*M* = 3.03), "Teachers invite me to be involved in my child's academic learning activities at home (e.g., the teacher asks my child to complete homework with me)." (*M* = 3.05), and "Teachers provide childcare or some equivalent supports when I come to school for meetings or training." (*M* = 3.05). Of the four strategies with lowest mean scores, two were under the *Collaboration* domain, one was under the *Relationship* domain, and one was under *Culturally Responsive Practice* domain. Refer to Table 10 for respondents' means and standard deviations for each of the perceived strategies by domains by four major race/ethnicity groups (i.e., Non-Hispanic White, Non-Hispanic Black, Hispanic, and Others).

Table 10

Means and Standard Deviations of Parents' Perceptions regarding Each Strategy across the Five Domains by Four Major Race/Ethnicity Groups

Domains	Strategies	Non-Hispanic White	Non-Hispanic Black	Hispanic	Others
		Mean (SD)			
Knowledge & Skills	1. Provide information regarding parent training	3.42 (0.95)	3.64 (0.90)	3.16 (1.03)	3.30 (1.06)
	2. Answer questions regarding students' needs	3.65 (1.00)	3.33 (1.01)	3.34 (1.12)	3.40 (1.20)
	3. Provide resources related to students' services	3.59 (1.01)	3.40 (1.07)	3.50 (1.14)	3.29 (1.11)
	4. Coordinate/integrate resources regarding students' needs	3.68 (1.01)	3.46 (0.97)	3.43 (1.07)	3.37 (1.12)
	5. Communicate with parents clearly	3.81 (1.00)	3.65 (1.11)	3.50 (1.10)	3.36 (1.23)
Communication	6. Invite parents to their child's IEP meetings	3.77 (0.94)	3.47 (1.03)	3.33 (1.12)	3.35 (1.08)
	7. Provide notes to keep parents updated	3.74 (1.01)	3.54 (0.95)	3.39 (1.09)	3.31 (1.11)
	8. Share transition assessment results	3.77 (0.96)	3.44 (1.05)	3.42 (1.16)	3.32 (1.08)
	9. Are available when parents have questions	3.84 (0.97)	3.63 (0.92)	3.47 (1.07)	3.40 (1.11)
	10. Revise students' education/future plan/teaching based on parents' feedback	3.76 (0.94)	3.28 (1.03)	3.47 (1.07)	3.53 (1.02)
Collaboration	11. Connect parents with service providers or agencies	3.45 (1.01)	3.25 (0.94)	3.28 (1.02)	3.08 (1.18)
	12. Invite and include parents to improve school policies	3.56 (1.09)	3.46 (0.91)	3.30 (1.08)	2.97 (1.04)
	13. Invite parents to be involved in their child's academic learning activities at home	3.57 (1.04)	3.37 (0.98)	3.41 (1.06)	3.05 (1.08)
	14. Check-in with parents regarding their wellbeing	3.66 (0.99)	3.20 (0.93)	3.41 (1.10)	3.21 (1.21)
	15. Express care and sensitive to parents' emotional needs	3.60 (1.02)	3.34 (0.90)	3.30 (1.13)	3.27 (1.11)

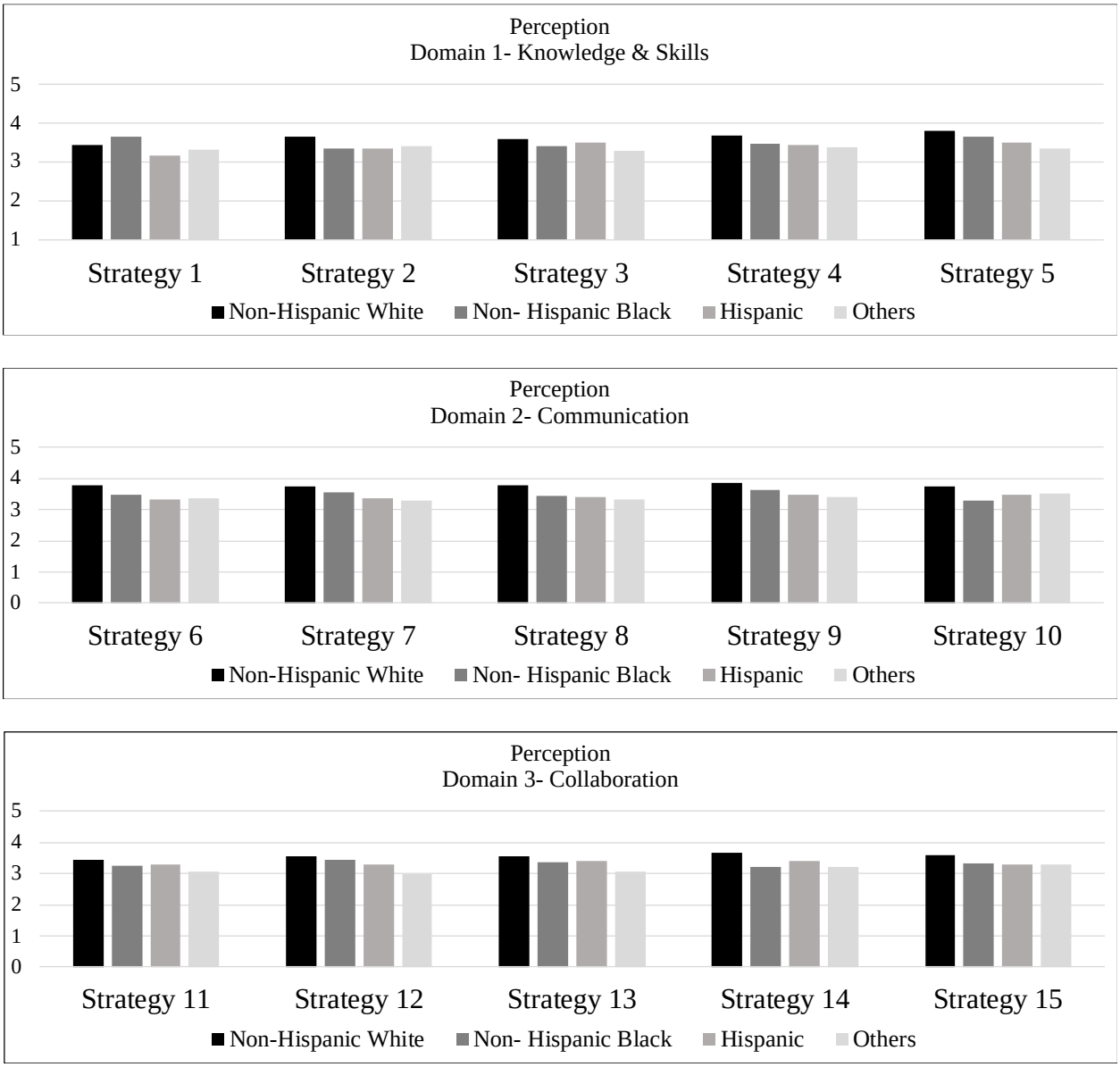
Domains	Strategies	Non-Hispanic White	Non-Hispanic Black	Hispanic	Others
		Mean (SD)			
Relationship	16. Identify students' strengths	3.67 (0.96)	3.51 (0.95)	3.31 (1.06)	3.23 (1.12)
	17. Consult with parents about effective strategies for students	3.59 (1.02)	3.50 (0.79)	3.43 (1.10)	3.14 (1.03)
	18. Initiate conversations with parents about their culture and family background	3.44 (1.08)	3.33 (0.92)	3.18 (1.08)	3.15 (1.16)
	19. Obtain parents' cultural values and beliefs	3.46 (1.10)	3.50 (0.89)	3.41 (1.02)	3.25 (1.10)
	20. Provide flexible meeting schedules	3.54 (1.04)	3.31 (1.10)	3.37 (1.13)	3.03 (1.13)
Culturally Responsive Practice	21. Provide childcare during meetings	3.46 (0.97)	3.53 (0.92)	3.22 (1.12)	3.05 (1.17)
	22. Show interest to family's values and beliefs	3.59 (1.04)	3.20 (1.03)	3.40 (1.04)	3.07 (1.10)
	23. Provide a safe space for parents to share thoughts	3.65 (1.03)	3.33 (1.03)	3.48 (1.15)	3.39 (1.10)

Figure 7 illustrates parents' perceptions toward each of the 23 school-based parent engagement strategies in five domains (i.e., Knowledge and Skills, Communication, Collaboration, Relationship, and Culturally Responsive Practice) across parents' race/ethnicity (i.e., Non-Hispanic White, Non-Hispanic Black, Hispanic, and Others). Compared to the other race/ethnicity groups, the group of Non-Hispanic White perceived each of the strategies across five domains with the highest level of helpfulness, except strategies 1 (i.e., Provide information regarding parent training), 19 (i.e., Obtain parents' cultural values and beliefs), and 21 (i.e., Provide childcare during meetings). For all strategies in the domains of *Communication* and *Collaboration*, the Non-Hispanic White group rated the highest in terms of level of helpfulness. Compared to the other three groups (i.e., Non-Hispanic White, Non-Hispanic Black, and

Hispanic), the group of Others overall showed the lowest or lower mean scores across the five domains regarding the level of helpfulness for each strategy.

Figure 7

Means of Parents' Perceptions toward Each Strategy across the Five Domains by Race/Ethnicity



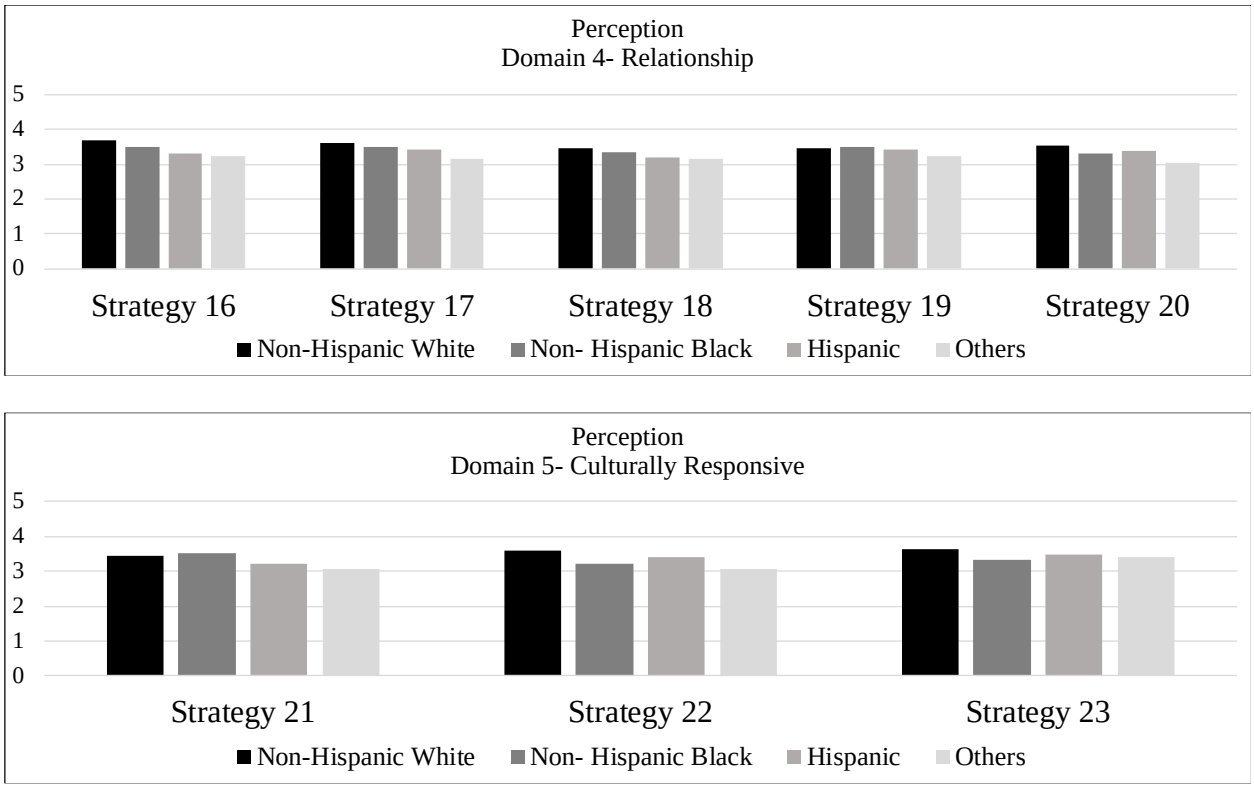
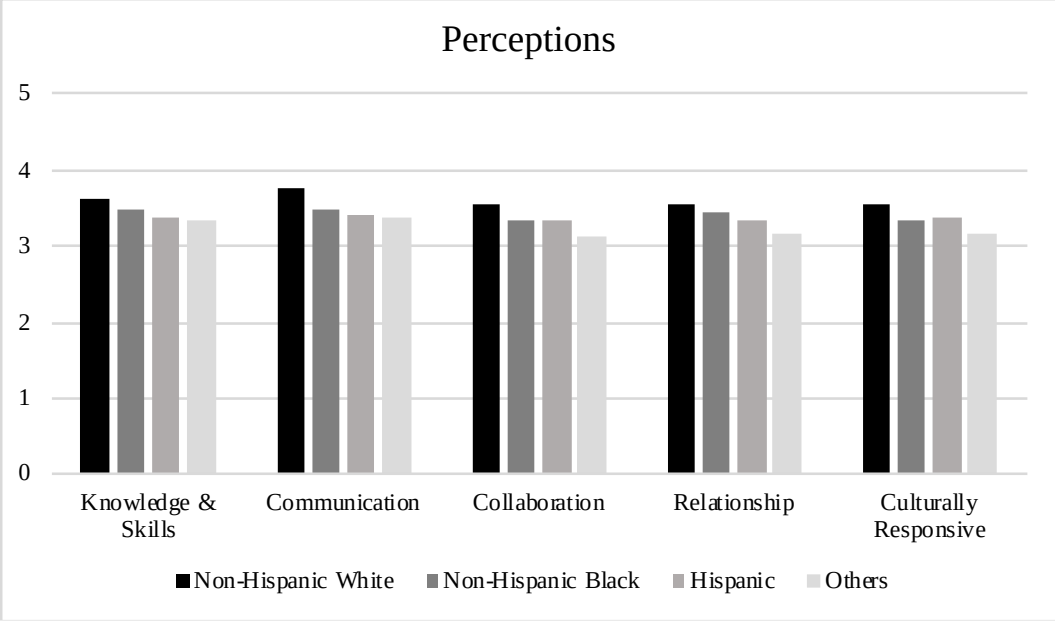


Figure 8 illustrates parents' perceptions toward the five domains (i.e., Knowledge and Skills, Communication, Collaboration, Relationship, and Culturally Responsive Practice) of school-based parent engagement strategies across parents' race/ethnicity (i.e., Non-Hispanic White, Non-Hispanic Black, Hispanic, and Others). Compared to the other race/ethnicity groups, the group of Non-Hispanic White perceived the five domains of the strategies with the highest level of helpfulness. Compared to the other three groups (i.e., Non-Hispanic White, Non-Hispanic Black, and Hispanic), the group of Others showed the lowest mean scores across the five domains regarding the level of helpfulness for parent engagement strategies.

Figure 8

Means of Parents' Perceptions toward Each Domain by Race/Ethnicity



Independent-Samples *t*-test. To understand the differences between the Non-Hispanic White group and the other race/ethnicity groups (i.e., Non-Hispanic Black, Hispanic, and Others) regarding parents' perception toward school-based parent engagement strategies, an independent-samples *t*-test was conducted. Results showed significant differences between the Non-Hispanic White group and all the other race/ethnicity groups (See Table 11). The significant differences between Non-Hispanic White and Non-Hispanic Black were in the scores of strategy 2 ($M1$=3.65, $M2$=3.34, p<0.05), strategy 6 ($M1$=3.77, $M2$=3.33, p<0.05), strategy 8 ($M1$=3.77, $M2$=3.42, p<0.05), strategy 10 ($M1$=3.76, $M2$=3.47, p<0.01), strategy 14 ($M1$=3.66, $M2$=3.41, p<0.01), strategy 22 ($M1$=3.59, $M2$=3.2, p<0.01), and strategy 23 ($M1$=3.65, $M2$=3.33, p<0.05).

Similarly, significant differences between groups of Non-Hispanic White and Hispanic were in the scores of strategy 2 ($M1$=3.65, $M3$=3.34, p<0.05), strategy 6 ($M1$=3.77, $M3$=3.33, p<0.05), strategy 8 ($M1$=3.77, $M3$=3.42, p<0.05), strategy 10 ($M1$=3.76, $M3$=3.47, p<0.01),

strategy 14 (*M*1=3.66, *M*3=3.41, *p*<0.01), strategy 22 (*M*1=3.59, *M*3=3.4, *p*<0.05), and strategy 23 (*M*1=3.65, *M*3=3.48, *p*<0.05). Finally, significant differences between groups of Non-Hispanic White and Others were in the scores of strategy 1 (*M*1=3.42, *M*4=3.33, *p*<0.01), strategy 2 (*M*1=3.65, *M*4=3.4, *p*<0.01), strategy 4 (*M*1=3.68, *M*4=3.37, *p*<0.01), strategy 5 (*M*1=3.81, *M*4=3.36, *p*<0.01), strategy 6 (*M*1=3.77, *M*4=3.35, *p*<0.001), strategy 7 (*M*1=3.74, *M*4=3.31, *p*<0.001), strategy 8 (*M*1=3.77, *M*4=3.32, *p*<0.001), strategy 9 (*M*1=3.84, *M*4=3.4, *p*<0.001), strategy 10 (*M*1=3.76, *M*4=3.53, *p*<0.01), strategy 12 (*M*1=3.56, *M*4=2.97, *p*<0.01), strategy 14 (*M*1=3.66, *M*4=3.21, *p*<0.01), strategy 15 (*M*1=3.6, *M*4=3.27, *p*<0.01), strategy 16 (*M*1=3.67, *M*4=3.23, *p*<0.001), strategy 18 (*M*1=3.44, *M*4=3.15, *p*<0.01), strategy 21 (*M*1=3.46, *M*4=3.05, *p*<0.05), and strategy 22 (*M*1=3.59, *M*4=3.07, *p*<0.05).

Table 11

Independent-Samples t-Test Results regarding Parents' Perceptions of School-based Parent Engagement Strategies by Race/Ethnicity

	White	Black	Hispanic	Others
Strategies	Mean (*SD*)			
1. Provide information regarding parent training	3.42 (0.95)	3.64 (0.90)	3.16 (1.03)	3.30 (1.06)**
2. Answer questions regarding students' needs	3.65 (1.00)	3.33 (1.01)*	3.34 (1.12)*	3.40 (1.20)**
3. Provide resources related to students' services	3.59 (1.01)	3.40 (1.07)	3.50 (1.14)	3.29 (1.11)
4. Coordinate/integrate resources regarding students' needs	3.68 (1.01)	3.46 (0.97)	3.43 (1.07)	3.37 (1.12)**
5. Communicate with parents clearly	3.81 (1.00)	3.65 (1.11)	3.50 (1.10)	3.36 (1.23)**
6. Invite parents to their child's IEP meetings	3.77 (0.94)	3.47 (1.03)*	3.33 (1.12)*	3.35 (1.08)***
7. Provide notes to keep parents updated	3.74 (1.01)	3.54 (0.95)	3.39 (1.09)	3.31 (1.11)***

Strategies	White	Black	Hispanic	Others
	Mean (*SD*)			
8. Share transition assessment results	3.77 (0.96)	3.44 (1.05)*	3.42 (1.16)*	3.32 (1.08)***
9. Are available when parents have questions	3.84 (0.97)	3.63 (0.92)	3.47 (1.07)	3.40 (1.11)***
10. Revise students' education/future plan/teaching based on parents' feedback	3.76 (0.94)	3.28 (1.03)**	3.47 (1.07)**	3.53 (1.02)**
11. Connect parents with service providers or agencies	3.45 (1.01)	3.25 (0.94)	3.28 (1.02)	3.08 (1.18)
12. Invite and include parents to improve school policies	3.56 (1.09)	3.46 (0.91)	3.30 (1.08)	2.97 (1.04)**
13. Invite parents to be involved in their child's academic learning activities at home	3.57 (1.04)	3.37 (0.98)	3.41 (1.06)	3.05 (1.08)
14. Check-in with parents regarding their wellbeing	3.66 (0.99)	3.20 (0.93)**	3.41 (1.10)**	3.21 (1.21)**
15. Express care and sensitive to parents' emotional needs	3.60 (1.02)	3.34 (0.90)	3.30 (1.13)	3.27 (1.11)**
16. Identify students' strengths	3.67 (0.96)	3.51 (0.95)	3.31 (1.06)	3.23 (1.12)***
17. Consult with parents about effective strategies for students	3.59 (1.02)	3.50 (0.79)	3.43 (1.10)	3.14 (1.03)
18. Initiate conversations with parents about their culture and family background	3.44 (1.08)	3.33 (0.92)	3.18 (1.08)	3.15 (1.16)**
19. Obtain parents' cultural values and beliefs	3.46 (1.10)	3.50 (0.89)	3.41 (1.02)	3.25 (1.10)
20. Provide flexible meeting schedules	3.54 (1.04)	3.31 (1.10)	3.37 (1.13)	3.03 (1.13)
21. Provide childcare during meetings	3.46 (0.97)	3.53 (0.92)	3.22 (1.12)	3.05 (1.17)*
22. Show interest to family's values and beliefs	3.59 (1.04)	3.20 (1.03)*	3.40 (1.04)*	3.07 (1.10)*
23. Provide a safe space for parents to share thoughts	3.65 (1.03)	3.33 (1.03)*	3.48 (1.15)*	3.39 (1.10)

*p <0.05
**p <0.01
***p <0.001

Generalized Linear Regressions Controlling for Confounders

To understand how confounders impact the relationships between parents' experiences/perceptions and parents' race/ethnicity, seven confounders (i.e., parents' gender, educational attainment, rural/urban school location, child's grade level, annual household income, whether a child has multiple disability conditions, child state location) were identified and controlled. Table 12 shows the controlled results under the five domains of *Knowledge & Skills, Communication, Collaboration, Relationship,* and *Culturally Responsive Practice.*

Across the five domains, compared to non-Hispanic White parents, parents of non-Hispanic Black perceived 13 strategies as being provided less often and less helpful for engaging them in their child's educational activities; whereas parents of Hispanic only perceived three strategies differently (i.e., they regarded strategy 1 as more helpful, strategy 10 as less helpful, and strategy 18 as being provided less often from educators/schools). For parents of other race/ethnicity, compared to non-Hispanic White parents, they regarded 14 strategies as less helpful, even though there were no significant differences of being provided the strategies from educators/schools.

Table 12

Generalized Linear Regressions Controlling for Confounders

Strategy Domain	Strategies	E/P	Non-Hispanic White	Non-Hispanic Black	Hispanic	Others
Knowledge & Skills	1. Provide information regarding parent training	E	Ref.	-0.113	-0.080	0.111
		P	Ref.	-0.198*	0.288*	-0.138
	2. Answer questions regarding students' needs	E	Ref.	-0.267**	-0.351	0.066
		P	Ref.	-0.196*	-0.177	-0.097
	3. Provide resources related to students' services	E	Ref.	-0.008	-0.129	0.105
		P	Ref.	0.000	-0.209	-0.361*
	4. Coordinate/integrate resources regarding students' needs	E	Ref.	-0.100	-0.241	-0.125
		P	Ref.	-0.100	-0.238	-0.343
	5. Communicate with parents clearly	E	Ref.	-0.145	-0.252	-0.100
		P	Ref.	-0.135	-0.022	-0.473**
Communication	6. Invite parents to their child's IEP meetings	E	Ref.	-0.412***	-0.235	-0.125
		P	Ref.	-0.276**	-0.165	-0.390**
	7. Provide notes to keep parents updated	E	Ref.	-0.205*	-0.110	-0.001
		P	Ref.	-0.222*	-0.018	-0.268
	8. Share transition assessment results	E	Ref.	-0.248**	-0.311	-0.063
		P	Ref.	-0.266**	-0.098	-0.420**
	9. Available when parents have questions	E	Ref.	-0.196*	-0.053	-0.176
		P	Ref.	-0.232*	-0.053	-0.413**
	10. Revise students' education/future plan/teaching based on parents' feedback	E	Ref.	-0.182*	-0.284	-0.081
		P	Ref.	-0.161	-0.403*	-0.288*
Collaboration	11. Connect parents with service providers or agencies	E	Ref.	-0.309**	0.083	-0.149
		P	Ref.	-0.099	0.190	-0.192
	12. Invite and include parents to improve school policies	E	Ref.	-0.182	-0.092	-0.146
		P	Ref.	-0.044	-0.234	-0.376*
	13. Invite parents participating their child's academic learning activities at home	E	Ref.	-0.316***	-0.260	-0.219
		P	Ref.	0.014	-0.173	-0.136
	14. Check-in with parents regarding their wellbeing	E	Ref.	-0.115	0.055	-0.128
		P	Ref.	-0.031	-0.072	-0.302
	15. Express care and sensitive to parents' emotional needs	E	Ref.	-0.068	-0.147	-0.079
		P	Ref.	-0.158	-0.041	-0.603***

Strategy Domain	Strategies	E/P	Non-Hispanic White	Non-Hispanic Black	Hispanic	Others
Relationship	16. Identify students' strengths	E	Ref.	-0.083	-0.125	-0.127
		P	Ref.	-0.004	-0.157	-0.474**
	17. Consult with parents about effective strategies for students	E	Ref.	-0.209*	-0.145	-0.181
		P	Ref.	-0.163	-0.303	-0.418*
	18. Initiate conversations with parents about their culture and family background	E	Ref.	-0.126	-0.407*	-0.322*
		P	Ref.	-0.240*	-0.170	-0.289
	19. Obtain parents' cultural values and beliefs	E	Ref.	-0.270**	0.047	-0.122
		P	Ref.	-0.205*	-0.130	-0.396*
	20. Provide flexible meeting schedules	E	Ref.	0.059	-0.014	-0.091
		P	Ref.	0.017	0.046	-0.345*
Culturally responsive Practice	21. Provide childcare during meetings	E	Ref.	-0.218*	-0.067	0.057
		P	Ref.	-0.249*	-0.155	-0.340*
	22. Show interest to parents' family's values and beliefs	E	Ref.	-0.129	-0.191	-0.128
		P	Ref.	-0.015	0.233	-0.219
	23. Provide a safe space for parents to share thoughts	E	Ref.	-0.157	-0.175	-0.064
		P	Ref.	-0.001	-0.120	-0.427**

*p <0.05
**p <0.01
***p <0.001
Note. Estimates are calculated from generalized linear regressions controlling for parents' gender, educational attainment, rural/urban school location, child's grade level, annual household income, whether a child has multiple disability conditions, and child state location. E = Experience; P = Perception

Research Questions 4: What are the facilitators and barriers of parent engagement strategies for engaging parents of youth with disabilities?

The analysis of the 642 open-ended responses yielded four major themes about parent engagement facilitators and barriers for parents of youth with disabilities. The four themes are school-based factors, home-based factors, system-based factors, and existing situations.

Theme 1: School-based Facilitators and Barriers

This theme shows parents' concerns and hopes that are related to what teachers/schools could or should do to improve parent engagement for parents of youth with disabilities. Under this theme, I further discussed five main categories (i.e., knowledge and skills, communication, collaboration, relationship, and culturally responsive practice), consistent with the five domains for engaging parents in schools.

Knowledge and Skills. Parents reported the needs of teachers/schools to provide more and timely information on supporting their children across settings and throughout the transition stages. For instance, to build relationships with their children at home, Parent 336 shared her hope that schools could "organize more activities for parents to participate in, to help us [learn] how to get along with our children better."

Parents also reported insufficient knowledge and skills related to their children's future options. Parent 640 reported,

> my son is in his senior year and I still have no idea what our next step is going to be. I am pretty much given one option as far as a transition program and I don't especially care for that option. Parents should have choices and I don't feel that I have been given many. I am pretty much on my own in deciding our next step.

Specifically, for youth with disabilities in secondary transition, Parent 99 expressed the need for "more opportunities for learning the 'what is next' steps for our children with disabilities" and "better access to what information and programs are out there."

In addition, parents reported their concerns about insufficient teacher trainings/preparations in supporting the students and/or assisting parents. For instance, Parent 620 said,

> school personnel are not adequately prepared for teaching post graduation. Many of my child's intervention specialists clearly did not understand children with disabilities. After repeatedly not meeting IEP goals, we entered high school where the intervention room is a glorified study hall. This is not the help my child needs.

To add on this, Parent 90 reported, "I see that the teachers were very committed to working with my child, however they did not have the training necessary to provide more support in helping me identify and access supports after my child graduated from HS [high school]."

Communication. Parents identified the importance of communication that takes place between teachers/schools, students, agencies, and parents across different platforms and frequency. Communication includes expressing (i.e., words and impression), listening, and timely responses. Parents believed having a clear communication means free of technical terms. For example, Parent 448 pointed out the communication barriers as teachers used "technical terms" and indicated teachers need to "speak clearly" to make their communications more effectively. Parents also emphasized the importance of teachers' timely responses and notes about their children. For instance, Parent 441 shared positive experiences that, "teachers often record short videos of children's daily behavior during the learning process and share them with parents." Parent 557 expressed the need to "know more about his [son's] situation in school." To add on that, parents reported the needs for more frequent communications between teachers and parents. For example, Parent 632 reported,

> I feel we are only engaged at IEP [Individualized Education Program] or ETR [Evaluation Team Report] time. We receive a quarterly summary per guidelines; however, it would be wonderful to have a teacher call or email me periodically to check in or provide observations/guidance based off of what is going on at that time.

To improve effective communication, Parent 617 indicated the importance of "constant communication, even a simple email." When communication is limited and only focuses on negative information, it could be frustrating. Parent 624, shared, "I honestly hear nothing from the teacher unless something bad has happened or she [my child] has done really poorly on something." One factor that may have contributed to the limited communication is related to fewer opportunities being provided from schools at higher grade levels. For example, Parent 615 reported, "I had lots of interaction when my child was in elementary school but once she hit the junior high school, not as many opportunities to interact."

During the coronavirus pandemic in the past year, parents' experience toward parent engagement changed due to the changes in students' learning settings, which also affected school-parent communication. For instance, Parent 97 indicated,

> since the pandemic started, I have found the school to be extremely responsive and helpful in terms of making plans for his [my son's] education, supporting my decisions regarding live vs. remote attendance, and keeping me informed. However, I will say that before we went on lockdown, there was very little communication from the school about anything.

Collaboration. Parents reported the importance of parents, schools, students, and other stakeholders work toward the same or similar goal(s) collaboratively, as well as different stakeholders making connection to learn from each other's experiences/expertise. Inviting parents to join an educational activity can be the first step to collaborate with parents. Parent 624 said it could be, "just an invitation or even an opportunity to give advice or opinions on what I think would work well with my child." Collaborating with students themselves and the community can be equally important. Parent 634 indicated the needs of "having the school [be]

engaged with the community and encouraging the students' regular involvement in community activities." The support from the community could be the network of local parent support groups. Parent 604 reported, "it is always great when we can discuss issues with other families. A support system outside of the school, but possibly facilitated by the school, would be helpful." Parent 600 also noted, "connecting parents to mentor parents (parents with a child with a disability who is older and so have already been through the process)."

Relationship. Parents reported their perceptions toward parent-teacher relationship. Parent 368 pointed that "teachers and parents establish a cooperative relationship of mutual trust and coordination in educational activities, which is conducive to the formation of home cooperation atmosphere." In addition, parents shared their past working experiences with teachers/schools, which included being cared by the teachers/schools or having trust in the behavior of the teachers/schools, under a certain or an uncertain circumstance. Parent 628 expressed that "it is often teachers who blame parents for behavior and are unwilling to discuss strategies with families and reflect on their own teaching practices to solve problems," and that "building trusting relationships should be the key to all educational success with students!" Some parents reported examples that affected the school-parent relationships. For example, Parent 634 indicated,

> I don't feel like the school is looking at solutions for the bigger picture. It seems easier to just identify her [my daughter] with a significant cognitive delay and not try to figure out how to teach her. It is called an [*sic*] Individualized Education Plan for a reason. I feel that the school is too busy to address my concerns or brainstorm with me.

Parent 629 also shared a similar, less than desirable experience by reporting, “school’s reputation of refusing to provide meaningful services on IEP has ruined relationships with parents. I am left with only options to get interventions outside of school setting.”

To build up a genuine relationship between schools and parents, Parent 600 indicated, “parents could help educators if they would truly accept their involvement.” To truly accept the parents from the school side, Parent 630 expressed that, “parent needs to be made to feel that the school NEEDS their involvement in the special education process as they are the experts in their children. They should not be made to feel like they are REQUIRED.”

Culturally Responsive Practice. Parents reported experiences related to teachers/schools identifying and valuing survey respondents’ cultural, experience, or perceptions. Specifically, this category could include (a) schools/teachers providing a judgmental-free, welcoming environment for parents to share their thoughts freely, (b) schools/teachers encouraging parents to share information/perceptions about their children, and (c) schools/teachers being aware of and justifying their speaking tone/appearances.

Parents reported school environment can be one factor to parents’ participation. Parent 602 said, “our district is not welcoming to parents coming into the school environment. They claim they are, but it is all dependent on ‘who you are.” Too add on that point, Parent 604 shared,

> The school and district would prefer that parents are not involved at all. Additionally, it seems as though administration and therefore the special education teachers/instructors do as little as possible to get by. The general education teaches are totally hands off and want as little involvement as possible.

Parent 372 also shared a concern about their school environment, “the special cultural atmosphere of the family, some hobbies of parents and professional differences of parents will induce students to partial subjects. Parents’ subjective attention to a certain subject will also lead to students’ partial subject.” Finally, Parent 637 reported, “the regular school setting did not want to try to meet his [my son’s] needs. His behavioral issues were a lot but they [teachers] did not want to even try to address them [behavioral issues].”

Theme 2: Home-based Facilitators and Barriers

This theme shows parents’ concerns and hopes that are related to what parents believe a parent could/should do to improve their school involvement/engagement. Parents argued the importance of parents’ involvement, knowledge, and capability to support their children. For instance, Parent 101 reported that in order to improve parent engagement, not just teachers and school-side, “parents should also communicate with school teachers about their children’s recent situations.” Parent 373 also commented, “parent engagement requires not only parents’ motivation, but also, maybe more importantly, parents’ engaging ability. With high motivation and low capability, many school educational activities are not appropriate for parents to participate.” Parent 373 continued, “how to support parents to improve their attending capability should continuously consider many aspects, such as the training focus, training strategies.”

Theme 3: System-based Facilitators and Barriers

This theme shows parents’ concerns and hopes that are related to what parents believe system or policy makers could do to improve parent engagement, such as teacher training/educational system, school technology improvement, and online learning. Parent 622 pointed out the lack of support from administrators by expressing that “administrators who do

not provide support to teacher or require her to improve and use such strategies" present a barrier. Parent 621 pointed out the importance of continuous support from school districts,

> School based parent engagement strategies are very important. I think school districts have to put more time and effort into coming up with different strategies as things are always changing for families (e.g., schedules, finances, housing, health, etc.). Strategies that may be good [to]day may not be good the next school year. Families should be surveyed often due to changing commitments, lifestyles, etc."

Theme 4: Existing Situations

The final theme shows parents' concerns related to their current situations that could affect parent engagement, such as children's disability/characteristics, family's work, lack of transportation, time conflict, COVID-19, and weather. Family's life stress appears repeatedly across most of the parents' responses. The stress included work, lack of transportations, limited time capacity, children's disabilities, parents' own disabilities, and parents' emotions about their children's disabilities. Parent 632 reported,

> I work outside of the home from 8a-430p. It has always been difficult for me to participate in meetings and other school activities d/t [due to] my work hours. I am willing to do so, but I have always received resistance when I've asked to meet outside of the school day. I always have to use vacation time or non-paid work time to go to a meeting at school or participate in anything.

Parent 153 shared a similar response, "I think the biggest problem is time. I need to work to support my family, so I can't attend school activities in time."

In addition to parents' life stress, many schools changed classes to the online or hybrid instructional format due to the coronavirus pandemic. These changes affected the ways of parent

engagement and might have also caused additional stress for parents in parent engagement. For instance, Parent 485 stated, “The current obstacle should be the popular virus, we can only communicate through the network, teachers can no longer actually know the children’s ideas and learning progress, the total experience is a bit stuck.” Further, Parent 608 indicated, “Virtual learning is a joke for my senior. There is no direct contact with learning from a teacher. I am not qualified at that level.” Parents also indicated parent engagement barriers related to their children’s disabilities (e.g., Parent 312 wrote, “The biggest [parent engagement] impact comes from the child itself. We always feel that when we face him”), parents’ own disabilities (e.g., Parent 271 reported the biggest parent engagement barrier is that they “have a serious illness”), and their own emotions (e.g., Parent 402 reported, “feeling deprived is a very difficult result to accept for your child to be disabled, and raising a special child requires more time, money and effort than normal parents”).

CHAPTER 5: DISCUSSION

The purposes of this dissertation were (a) to identify parents' experiences and perceptions toward the school-based parent engagement practices in secondary transition, and (b) to understand the facilitators and barriers of parent engagement strategies for engaging parents of youth with disabilities. Using a nonprobability snowball sampling, this cross-sectional mixed-method survey study included 642 parents of youth (ages 14-21) with disabilities across the United States. Each parent reported their experience and perceived helpfulness toward each school-based parent engagement strategy, on a 5-point Likert scale, ranging from 1 (rarely experienced/not at all helpful) to 5 (always/extremely helpful). Results showed that on average, parents reported "sometimes" experiencing each of the 23 strategies with the highest rated strategies being revising students' education/future plan/teaching based on parents' feedback (M = 3.75, SD = 0.95) and communicating with parents clearly (M = 3.75, SD = 0.96), and lowest rated strategies being obtaining parents' cultural values and beliefs (M = 3.35, SD = 1.08) and initiating conversations with parents about their culture and family background (M = 3.38, SD = 1.09). Further, being available when parents have questions (M = 3.66, SD = 1.03) was regarded as the most helpful strategy, followed by communicating with parents clearly (M = 3.65, SD = 1.08), whereas initiating conversations with parents regarding cultural and family backgrounds (M = 3.32, SD = 1.08) was rated as the least helpful strategy. Across parental race/ethnicity groups, findings revealed racial differences in parents' perceptions toward the 23 school-based parent engagement strategies across five domains: knowledge and skills, communication, collaboration, relationship, and culturally responsive practice. Finally, the thematic analysis of parents' responses to the three open-ended questions uncovered that facilitators and barriers of

parent engagement are related to home-based factors, school-based factors, system-based factors, and existing situations. This chapter includes further discussion of findings organized by research questions, as well as contributions, limitations, suggestions for future research, and implications for practice.

Research Question 1: How have parents of youth with disabilities been exposed to each of the school-based practices in secondary transition?

Research Question 2: What are the parents' perceptions on each of the school-based practices in secondary transition?

Results of this survey study indicated that although many parents had frequently experienced all strategies of the five domains (i.e., Knowledge & Skills, Communication, Collaboration, Relationship, and Culturally Responsive Practice), strategies under the *Communication* domain were overall rated as the most frequently experienced strategies and regarded as the most helpful strategies by parents. Strategies within the *Communication* domain included inviting parents to their child's IEP meetings, providing notes to keep parents updated, sharing transition assessment results, being available when parents have questions, and revising students' education/future plan/teaching based on parents' feedback. These results are not surprising as communication has been well documented to play a vital role in parent engagement (Epstein et al., 2019; Turnbull et al., 2015). Since the passage of the NCLB Act in 2001, schools have been required to involve parents in plan development to improve student's academic achievement and school performance, and because communication is evidently a key lever, teachers might have prioritized communication strategies in the efforts to engage parents of youth with disabilities. It is encouraging that the most frequently provided strategies are also perceived as the most helpful strategies to engage parents. Specifically, parent respondents rated

four of the five strategies within the *Communication* domain among the top five most frequently experienced strategies and perceived all five strategies within the *Communication* domain among the top six most helpful strategies. Parents' responses to the open-ended questions supported the importance of communication in that many believe effective communication between home and school should include clear and jargon-free terms, teachers' timely responses and notes, constant communications with flexible methods between teachers and parents, and positive information about their children. However, despite highly rated helpfulness of communication strategies, a few parents also raised concerns and provided suggestions regarding how communication strategies could be best implemented to support them. For instance, one parent reported,

> I feel we are only engaged at IEP [Individualized Education Program] or ETR [Evaluation Team Report] time. We receive a quarterly summary per guidelines; however, it would be wonderful to have a teacher call or email me periodically to check in or provide observations/guidance based off of what is going on at that time.

Parents also reported their eagerness to hear some positive report about their children with disabilities, not just about their problems or issues. For example, one parent shared, "I honestly hear nothing from the teacher unless something bad has happened or she [my daughter] has done really poorly on something." Prior studies have emphasized that ongoing and consistent communication between parent and school staff is key to a successful transition (Hoy et al., 2018). These parents' concerns from this study further support the importance of building effective communication between schools and parents (Epstein et al., 1995, 2019; Goodwin & King, 2002; Turnbull et al., 2015).

Another important finding of the study is that among the five domains, strategies within the *Collaboration* domain were generally rated as the least frequently experienced strategies and

regarded as the least helpful strategies by parents. Strategies within the *Collaboration* domain included connecting parents with service providers or agencies, inviting and including parents to improve school policies, inviting parents to be involved in their child's academic learning activities at home, checking-in with parents regarding their wellbeing, and expressing care and sensitive to parents' emotional needs. Parents have reported not having appropriate collaborations with schools and other service providers (Epstein et al., 2019), even though policies and legislations mandate certain levels of collaboration between professionals or service providers who work with youth with disabilities (IDEA, 2004; ESSA, 2015; WIOA, 2014). Parents from this study urged for more connections between school, home, and communities. For example, a parent indicated the need for "having the school [be] engaged with the community and encouraging students' regular involvements in community activities." Another parent expressed that the professionals "do not even speak to each other to work on the same things and get tips. Integration would help." Another parent further noted the urgency of collaboration among schools, communities, service providers, and families by expressing,

> A district who is providing service to a student with a low incidence disability be REQUIRED to have a member of a state or regional level support agency (experts in that low incidence disability) be a part of the IEP team as soon as possible. This is especially important in rural areas with limited local support. These regional and state level organizations can provide specific strategies for school staff and families related to the LI [low incidence] disability including parent/family support groups and community agencies dedicated to supporting the families.

These findings highlight the complexity of effective collaboration strategies, as they go beyond the levels of collaboration between teachers and professionals as mandated by the policies and

legislations (IDEA, 2004; ESSA, 2015; WIOA, 2014). Multifaceted efforts across parents, teachers, and community stakeholders are often necessary to achieve the effectiveness of these strategies.

Even though multiple collaboration models exit that may help schools guide the planning and implementation of collaborative efforts (UPS, Hunt et al., 2002; Family-centered Care, Bailey et al., 1992; Teaching All Students Skills for Employment and Life [TASSEL], Aspel et al., 1998; Flower et al., 2018; Povenmire-Kirk et al., 2015), the low scores on both experience and perceived helpfulness for the *Collaboration* domain may suggest that parents' past negative collaboration experiences might have an impact on their perceptions toward the helpfulness of this domain. For instance, a parent reported, "I try to work thru [through] the school policy but it's frustrating and I gave up (I had a parent mentor that helped, she told me we had no real choice of alternatives)." Another parent also shared,

> our child has complex conditions that are not well understood. Based on an unfortunate trauma my son experienced at school from his teacher 6 years ago (he experienced an abusive and neglectful teacher who intimidated, bullied him and denied IEP accommodations) he now has 2 additional diagnoses and has been unable to sustain within the traditional school building.

These negative past experiences parents experienced were unfortunate and may signify the importance of schools to find ways to understand parents' experiences during the collaboration process, to identify potential barriers of collaboration, and address the barriers to promote effective collaboration between parents, schools, and other stakeholders (UPS, Hunt et al., 2002; Family-centered Care, Bailey et al., 1992; TASSEL, Aspel et al., 1998; Flower et al., 2018; Povenmire-Kirk et al., 2015).

In addition to the *Collaboration* domain being perceived as least helpful, strategies within the *Relationship* domain were rated equally least helpful to parent engagement. This result may be impacted by parents' prior relationship with school as not being helpful. For instance, a parent said, "school's reputation of refusing to provide meaningful services on IEP has ruined relationships with parents. I am left with only options to get interventions outside of school setting." To improve the situation, parents reported caring might be the key. Several parents shared their thoughts on this. One parent said, "I hope school education should be more close [closer] to children's life, and really care about children's future." Another parent noted, "teachers and parents establish a cooperative relationship of mutual trust and coordination in educational activities, which is conducive to the formation of home cooperation atmosphere."

It is worthwhile to note that the parents' reported experience scores for the 23 strategies across all five domains were consistently higher than their perception scores, with the exception of the strategy of checking-in with parents regarding their wellbeing. Specifically, parent respondents rated many of the strategies as frequently experienced, yet they only perceived these same strategies as moderately helpful to parent engagement. This suggests that a majority of the strategies documented in prior literature are being implemented frequently in the school settings; however, some barriers may have hindered the perceived helpfulness to successfully engage parents of youth with disabilities. For instance, a parent reported,

> School based parent engagement strategies are very important. I think school districts have to put more time and effort into coming up with different strategies as things are always changing for families (e.g., schedules, finances, housing, health, etc.). Strategies that may be good today [*sic*] may not be good the next school year. Families should be surveyed often due to changing commitments, lifestyles, etc.

These results call for a need to reform the current parent engagement strategies at school to better tailor the needs of parents and empower families in the development of the strategies.

Research Question 3: What are the relationships between parents' demographic background and parents' experiences/perceptions of school-based practices?

Results of this study revealed significant variations in perceived helpfulness across the five domains by parental race/ethnicity, but no variations in the frequency of experiences were found. Compared to non-Hispanic White, non-Hispanic Black parents had significantly lower scores in their perceptions toward all parent engagement strategies, whereas their scores on experiences had no significant differences. One potential reason is that the current parent engagement strategies were developed based on the mainstream group, which focuses on parents of non-Hispanic White, middle-to- upper-class, and with higher education levels. These ideas and strategies were developed based on parents from the mainstream and might have systematically marginalized parents of color who have less flexibility in their schedules, lower availability of capital, and fewer power structures within schools (Reynolds, 2015; Wilson, 2019). Delpit (1988) pointed out schools create a "culture of power" as schools develop an environment that filled with unspoken rules and norms for parents to involve. Parents' involvement may be seen as "ineffective" or "inappropriate" when their behaviors do not fit with schools' hidden rules or cultures. For instance, black parents involved in their children's educational activities can be misinterpreted as angry and aggressive (Cooper, 2009; Reynolds 2010).

Parents in other race/ethnicity groups (i.e., American Indian or Alaska Native, Asian, and Native Hawaiian or Pacific Islander) also had significant lower scores in perceptions toward each parent engagement strategy. This finding aligns with prior studies as minority parents were

documented to perceive education and involvement differently from parents of non-Hispanic White. For example, Sy et al. (2007) reported that Asian American parents involved more in their children's academic learning process, whereas non-Hispanic White parents involved more in their children's non-academic related activities. In addition, minority parents who were not originally from the United States or were the first generation in the United States may not have sufficient understanding and knowledge to effectively involve in the U.S. education system (Araque et a., 2017).

Further, results of the study showed that parents of Hispanic group had no differences in either experience or perceptions toward parent engagement strategies. In this study, parents who identified themselves as Hispanic had similar distributions of demographic characteristics to those of the non-Hispanic parents. Specifically, both non-Hispanic White and Hispanic were over 90% married, highly educated (>85% with at least bachelor's degree), and over 30% in households with at least $80,000 annual income. According to the linear regression results, parents who reported higher annual household incomes rated higher experiences and perceptions scores for parent engagement strategies. These results align with Araque et al. (2017) study, which found parents' understanding and knowledge of the U.S. education system had significant relationships with greater parent engagement in their children's education and a National Educational Longitudinal Study from 1,609 Mexican American parents collected by the National Center for Educational Statistics (NCES), which found parent involvement in education mediated the influence of both parents' income and mothers' education levels (Altschul, 2012).

Although this study showed no significant differences in experiences and perceptions of parent engagement strategies between the Hispanic parents and non-Hispanic White parents, it should be noted that compared to the U.S. Hispanic median household income (i.e.,

$62,843/year, U.S. Census Bureau, 2019) and educational degree (i.e., 32.1% had a bachelor's degree or higher, 2019 U.S. Census Bureau), this study's sample represented the Hispanic parents with higher annual household income (i.e., 32% between $50,000-79,999/year, 30% ≥ $80,000/year) and higher education (i.e., 69% had college, associate, or bachelor's degree, 13% had master degree, 2% had professional degree, 2% had doctorate degree). When applying the study results, it is essential to recognize the variation among Hispanic parents in terms of education, socioeconomic, perceptions, and experiences (U.S. Census Bureau, 2019).

Research Question 4: What are the facilitators and barriers of parent engagement strategies for engaging parents of youth with disabilities?

Results from the thematic analysis of the parents' responses to the open-ended questions revealed four main themes that impact school-based parent engagement, including home-based factors, school-based factors, system-based factors, and existing situations. Under the home-based theme, there were five main categories: parents' stress, limited resources, lacking cultural capital, having low self-efficacy, and children's disabilities and characteristics. The home-based factors align with findings from prior studies that also suggested parent factors (Hirano et al., 2016; Hoover-Dempsey & Sandler, 2005; Walker et al., 2005). For example, Hirano et al. (2016) found the parent engagement factors included parental expectation for their children's future; parents' role construction; parents' perceptions of time and energy; parents' knowledge, skills, and self-efficacy. The school-based factors included teachers' knowledge and skills for supporting children and the parents, having positive attitude toward the parent collaboration, and insufficient transition planning supports. These results also confirm the findings from previous studies (Hirano & Rowe, 2016; Landmark et al., 2013; Lloyd-Smith & Baron, 2010). For instance, to promoting parent involvement, studies identified the importance of positive school

climate (Lloyd-Smith & Baron, 2010) and teachers' belief and efficacy on supporting parents (Hirano & Rowe, 2016; Landmark et al., 2013).

In addition to the home-based and school-based factors, this study also identified system-based factors and existing situations that were comparatively seldom to be discussed in prior studies. System-based factors refer to how systems could promote parent engagement at a system level, such as requiring in-depth teacher training on culturally responsive practices, sympathy, and communication skills. Parents from this study pointed out the resource limitations, such as districts lacking knowledge or funds to provide parents appropriate support, and schools not having the capacity to provide support or communicate with parents in addition to their work directed to the students. These experiences from parents were not new to the field. Auerbach (2007) indicated the parent engagement barriers for the district administrators were that, they "had no clear conceptions of what it should look like beyond compliance with mandates, and took a reactive stance rather than a proactive one" (p. 722). To promoting parent engagement, leaders set the goals for developing a respectful and welcoming school environment, yet, leading for a comprehensive or systematic approach can still be a challenge (Decker et al., 2007; Epstein et al., 2019). Additionally, parents in the current study reported existing situations that present barriers to parent engagement; these situations included children's disability/characteristics, family's work, lack of transportation, time conflict, COVID-19, and weather. These results align with the NLTS2 findings, which identified children's negative behaviors, and lacking resources and external supports have negative relationships with parent's school involvement (Newman, 2004). In addition, the current study showed parents reported COVID-19 as one factor that negatively impacted their engagement. This result was also supported by Wendel et al. (2020),

who found parents' beliefs in their responsibility to be involved in their children's learning decreased during COVID-19.

Contributions

This study presents several contributions to the literature. First, this was the first known study that evaluated parents' experiences and perceptions toward the current school-based parent engagement strategies through a nationally representative survey data, despite the well documented importance of parent engagement in secondary transition in special education. In addition, the prior study (Hirano et al., 2016) in parent engagement in secondary transition in special education had much smaller sample size (n=149). This study provided more convincing findings with a larger and more representative sample. Second, results of this study showed that schools implemented a majority of parent engagement strategies identified in the literature across the United States; yet, many parents perceived some of these implemented strategies to be moderately or minimally helpful and suggested factors such as economic, social environment, and health conditions as well as parent-professional relationships played a role in the perceived helpfulness to successfully engage parents of youth with disabilities. Findings from prior studies emphasized the importance of identifying parents' perceptions for parent engagement (Hirano et al., 2016; Walker et al., 2005). This study expanded on prior suggestions and a call for a need to continuously reform the current parent engagement strategies at school settings based on parents' perceptions to better tailor the needs of parents and empower families in the development of the strategies.

Finally, this study examined the relationships between parent characteristics (specifically, race/ethnicity) and their experiences and perceptions toward each of the identified parent engagement strategies, an unexplored area in current literature in secondary transition. Results of

this study showed significant differences in perceived helpfulness across parent engagement strategies by parental race/ethnicity, whereas parents' level of experiences were similar. These results highlight the importance of empowering parents of youth with disabilities in the reform of parent engagement, especially with inclusion of parents from various cultural backgrounds.

Limitations and Directions for Future Research

This study had some limitations. First, this study was shared through state parent centers and online private parent support groups, which may cause selection bias toward the parents who could access the parent centers or online groups. However, the study participants' demographics were similar to those of parents of youth with disabilities in the national database (NLTS, 2012), which suggest that this national survey research might reflect similar beliefs and experiences of other parents of youth with disabilities. Further studies should consider recruiting participants through diverse channels, such as school settings, local agencies, and religious settings to identify diverse populations.

Second, this study asked parents to self-report their experiences of parent engagement strategies that might be drawn from subjectivity. Future studies may include actual school-based data on parents' attendance records to various school activities as an additional data source. This will allow researchers to verify the self-report results.

Third, I recruited participants through an online survey, which limits to parents who had access to internet and had specific devices (e.g., laptop, smartphone). Future study should consider using multiple survey types, such as paper-copy surveys, to recruit parents with different resources.

Fourth, this study design required repeatedly running the *t*-test, which may result in Type I errors being significant. Future study should adjust multiple comparison to reduce the errors.

Finally, this is a cross-sectional study, therefore data from other time may have different results. Despite that the study sample was representative of the population, this study was conducted during the COVID-19 pandemic. As a result, parents' reports might have been influenced by factors unique to current societal state (e.g., virtual instruction, remote delivery of services, limited personal contacts). Future research is warranted to further examine how the pandemic affects the experiences and perceptions of parents as well as facilitators to engage parents in the era of distant learning.

Additional Suggestions for Future Research

There are several additional suggestions for future research. First, this study showed a significant difference in parents' experiences and perceptions toward each parent engagement strategy between parents from different race and ethnicity groups. These findings aligned with results from prior studies, which found parents of colors engaged in their children's educational activities differently from parents of White. However, there was no further exploration on how and why certain strategies align better with each race and ethnicity parent group. It is essential to understand in depth how the results align with parents from different cultural backgrounds. For example, interviewing parents from different race/ethnicity groups to identify strategies in or outside of the five domains may provide additional information to better serve the parents.

Second, although this study identified the highest and the lowest rated parent engagement strategies, the influence behind the lower rated parent engagement strategies and the ways to improve parent engagement within these strategies remain unknown. A suggestion for future studies is to explore the underlining factors that affect implementation of the parent engagement strategies and to identify steps to effectively implement each of the parent engagement strategies.

Third, this study uncovered four themes (i.e., home-based factors, school-based factors, system-based factors, existing situations) as the facilitators and barriers for parent engagement. It is essential to further expand on these identified themes to examine the effectiveness of the framework.

Fourth, findings of this study suggested that parents' experiences and perceptions toward school-based parent engagement strategies were positively related to parents' education. Future research should consider identifying and developing effective parent engagement strategies for parents from diverse educational backgrounds.

Fifth, this study identified and interpreted results in the five domains (i.e., knowledge and skills, communication, collaboration, relationship, and culturally responsive practice) separately, but did not look at the interactions between these domains. It is likely parents' positive experiences and perceptions toward multiple domains might have cumulative effects on their intention and actual parent engagement behaviors, which warrant further investigations.

Sixth, this study focused on identifying perceptions and experiences of school-based parent engagement strategies from parents only. It will be helpful to also understand the perceptions and experiences from educators in future research to triangulate the findings from both parents' and educators' perceptions and experiences.

Finally, I identified the parent engagement strategies to be included in the survey based on a range of the prior studies that were not experimental studies (Bahena et al., 2016; Epstein et al., 2019; Hirano & Rowe, 2016; Kohler et al., 2016; Morningstar et al., 2012; Turnbull et al., 2015). It is important for future research to evaluate whether or not these strategies are effective toward parent engagement through experimental investigations. In addition to identifying the efficacy of each strategy on parent engagement in schools, developing and identifying needs-

tailored strategies for the barriers documented from this study is also of interest. Similarly, future research is warranted to investigate how the implementation of the parent engagement strategies affect the performance of youth with disabilities.

Implications for Practice

This study offers implications for practice. First, the substantial variations in the perceptions toward parent engagement strategies by sociodemographic factors such as race and household income highlight two important implications: one is for the promotion of teacher preparation toward parent engagement, and the other one is for the development of school policies on parent engagement measures. For teacher preparation, this study collected and adapted 23 school-based parent engaged strategies from diverse literatures and parent engagement checklists. Majority of the surveyed parents believe these strategies could be somewhat helpful to engage them in their child's educational activities; and fortunately, they reported that their child's teachers also provide them many of these strategies as evident by nearly 4.0 average scores on a 5-point scale. However, parent engagement strategies should go beyond whether or not a teacher implemented a strategy but start focusing on the quality of the strategy implementation, especially when strategies are not universally perceived as helpful across all groups of parents. It might be helpful for future teacher trainings to consider including trainings on discussing and identifying potential effective parent engagement strategies that can help respective race/ethnicity groups of parents to maximize the engagement efficacy. In addition to the knowledge of diverse parent engagement strategies, promoting cultural awareness and addressing cultural differences in the process of engaging parents from diverse cultural backgrounds could be another essential topic in teacher preparation process.

In the area of informing school policies, this study results showed that parent engagement not only included school-based factors (e.g., teacher knowledge, environmental support), but also include home-based factors (e.g., parent's efficacy, parent's belief), system-based factors (e.g., policy changes, administrator support), and the parents' existing situations (e.g., children's disabilities, family stress). When developing school-level surveys to understand parents' willingness to participate in their youth's educational activities, it may be beneficial to consider all of these domains (i.e., school-based, home-based, system-based, and existing situations). Additionally, it will be helpful for schools to consider various barriers to parent engagement across these four domains and develop policies or initiatives to overcome these barriers for successful parent engagement.

Second, interagency collaboration has long been identified as one premise of successful postschool outcomes for youth with disabilities (Mazzotti et al., 2016; Test et al., 2009). However, this study reported most parents felt being moderately engaged in their children's educational activities, which may hinder the efforts for interagency collaboration. Effective interagency collaborations might require multiple ecological efforts across states, schools, and individuals (i.e., educators and parents) (Aspel et al., 1999; Flower et al., 2018; Povenmire-Kirk et al., 2015). At the state level, parent representatives should be invited to participate in transition policy meetings to help address parents' concerns and expectations in the process of developing state policy priorities. Empowering parents into the school activities have been evidently beneficial to children's academic performance (Alamedal-Lawson, 2014; Araque et al., 2017; Zhang et al., 2011), but little has been done for parents of youth with disabilities. At the school level, administrators and educators may adopt study-based tools, such as QI2 (Morningstar et al., 2012), Parent Involvement Activity Scale (Hirano et al., 2016), and parent engagement

frameworks (Epstein et al., 2019; Hirano & Rowe, 2016; Kohler et al., 2016; Turnbull et al., 2015) to identify parents' perceptions and thoughts in order to refine school policies. In addition, it is essential to note that, one strategy does not fit all parents, as this study found significantly different perceived usefulness between White parents and parents of color. Parents' perceptions need to be collected in an ongoing basis and school-based parent engagement strategies should be updated and revised based on parents' feedback for maximum parent engagement. At the educator/parent level, initial trainings for both educators and parents are essential to understand individuals' preferences and styles regarding knowledge and skills, communications, collaborations, relationships, and culturally responsive practices.

Summary

This study explored the perceptions of parents of youth with disabilities in secondary transition on school-based parent engagement strategies and identified its variations by parents' perceptions and their demographic information (e.g., race, ethnicity, gender, education, socioeconomic status). Results revealed a lower level of perceived helpfulness among parents of color than White parents across all five domains (i.e., Knowledge and Skills, Communication, Collaboration, Relationship, Culturally Responsive Practice). In addition to the quantitative findings in school-based parent engagement strategies, qualitative data analysis showed facilitators and barriers of parent engagement could be divided into home-based, school-based, system-based, and current situations, suggesting the necessity of collaborating and integrating multilevel stakeholders into parent engagement for optimal outcomes.

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Appendix A: Recruitment Email Request (a)

Dear _____,

I'm a fourth-year doctoral student at the University of North Carolina at Charlotte in Special Education program. I'm conducting a survey study to understand perceptions of parents of youth with disabilities toward school's parent engagement strategies (IRB#21-0199). This study aims to support youth with disabilities during transition through improving parent-school collaboration.

Eligibility:

- Parents of youth (age 14-21) with disabilities
- Living in the United States
- Their children are currently receiving special education services in the United States

All participants who complete the 30-minute survey will be given an opportunity to enter into a random drawing for one of five $100 Amazon gift cards.

I'm wondering if your center/agency will be willing to support this study by sharing the survey information and link on your websites/social media? I have attached more information and link of the survey (including message for social media post).

Please feel free to let me know if you have any question or concern via wchang13@uncc.edu or 612-406-9771.

Thank you very much for your consideration in supporting this study!

Sincerely,

Wen-hsuan Chang, M.A.
Doctoral Candidate
Department of Special Education and Child Development
University of North Carolina at Charlotte

Appendix A: Recruitment Email Request (b)

Attention Parents of Youth with Disabilities!

We are conducting a study to identify school-parent collaborations facilitators and barriers through parents' perspectives on school-based parent engagement strategies.

While participants won't receive benefits directly, information generated from the study will benefit the field.

Please complete the online survey within the next 7 days by following the link below:
Parent Engagement Strategies Survey

All participants who complete the 30-minute survey, and confirm that they are parents of youth (age 14-21) with disabilities and their children are currently receiving special education services in the United States, will be given an opportunity to enter into a random drawing for one of five $100 Amazon gift cards.

If you are not a parent of youth with disabilities, but know someone who is, or are interested in distributing this invitation broadly to the parents in your area, please feel free to do so.

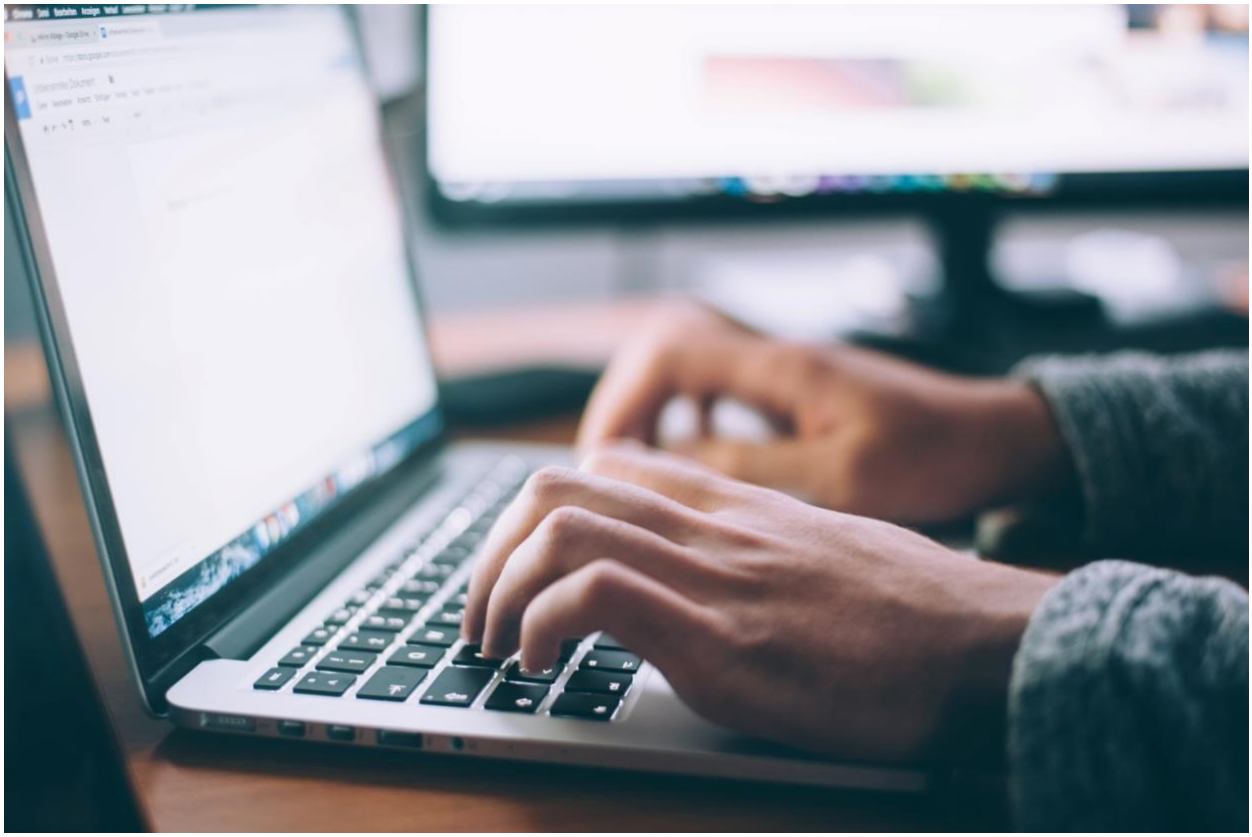
This study has been approved by the Institutional Review Board at the University of North Carolina at Charlotte (IRB#21-0199). If you have any questions regarding this study, you may contact Wen-hsuan Chang at (612) 406-9771 or wchang13@uncc.edu or Ya-yu Lo at ylo1@uncc.edu. If you have questions about your rights, please contact the Office of Research Compliance at UNC Charlotte at uncc-irb@uncc.edu or 704-687-1871.

Sincerely,

Wen-hsuan Chang, M.A.
Doctoral Candidate
Department of Special Education and Child Development
University of North Carolina at Charlotte

Ya-yu Lo, Ph.D.
Professor
Department of Special Education and Child Development
University of North Carolina at Charlotte

Appendix B: Social Media Post



Are you a parent of youth (age 14-21) with disabilities?
Are you currently living in the United States?
Does your youth with disabilities have an individualized education program (IEP) and currently receive special education services in the United States?

If you answer "yes" to all of the questions above, we encourage you to identify effective school-based parent engagement strategies by completing a 30-minute online survey. You will have the opportunity to receive a $100 Amazon gift card upon completion of the survey! **Click here** to start the survey!

This study has been approved by the Institutional Review Board at the University of North Carolina at Charlotte. If you have any questions regarding this study, you may contact Wen-hsuan Chang via wchang13@uncc.edu or Dr. Ya-yu Lo via ylo1@uncc.edu

Appendix C: Informed Consent Form

Department of Special Education and Child Development
9201 University City Blvd, Charlotte, NC 28223-0001
t/ 704.687.8828 f/ 704.687.1625 www.uncc.edu

Informed Consent for Parent Perceptions on School-based Parent Engagement Strategies in Secondary Transition

Project Title and Purpose:
You are invited to participate in a research study entitled "**Parent Perceptions on School-based Parent Engagement Strategies in Secondary Transition.**" The purpose of this study is to identify school-parent collaborations facilitators and barriers through parents' perspectives on school-based parent engagement strategies.

Investigator(s):
This study is being conducted by Wen-hsuan Chang, a doctoral candidate in the Department of Special Education and Child Development at UNC Charlotte. The responsible faculty is Ya-yu Lo, Ph.D.

Eligibility Criteria:
To be eligible for this study, you must (a) be a parent of at least one transition-aged (ages 14-21) youth with disability(ies) who currently have an individualized education program (IEP) and receive special education services in the United States, (b) live in the United States at the time of the survey, and (b) have access to a computer/tablet and WiFi to access the survey.

Description of Participation:
You will be asked to complete an online survey that includes 23 questions regarding school-based parent engagement strategies. Under each parent engagement strategy, you will be asked to answer two questions: (a) whether you have been provided with the strategy, and (b) what level do you believe this strategy is helpful to engage you as parent of youth with disabilities to support your child's educational activities. Additionally, you will be asked two open-ended questions about any barriers that prevent you from engaging in your child's school activities and additional strategies you have found helpful. Finally, you will be asked to respond to 26 demographic questions about you and your child, and final thoughts about your experiences with school-based parent engagement strategies. After completing the survey by responding to at least 90% of questions, you will be provided an opportunity to include a valid email address to enter into a random drawing for one of five receivers to receive $100 Amazon gift card.

Length of Participation
This survey will take about 30 minutes to complete.

Risks and Benefits of Participation:
There are no known risks to participation in this study. However, there may be risks which are currently unforeseeable. The benefits of participation in this study is having an overview on the current school-based parent engagement strategies in secondary transition planning. Cumulatively the survey results may help schools to promote effective strategies to collaborate with parents of youth with disabilities and improve integrated services for the youth with disabilities.

Stipends:
Participants who completed the survey will be provided an opportunity to enter into a random drawing for one of five $100 Amazon gift cards. No opportunities will be awarded if you: (a) did not complete the survey, or (b) complete the survey multiple times with the same IP address.

Volunteer Statement:
You are a volunteer. The decision to participate in this study is completely up to you. You may feel uncomfortable answering some of the questions. You do not have to answer any questions that you do not wish to answer. Yet, you will only be given the opportunity receive $100 gift card, if you successfully complete the survey by answering at least 90% of questions in the survey. If you decide to be in the study, you may stop at any time. You will not be treated any differently if you decide not to participate or if you stop once you have started.

Confidentiality and Anonymity:
This study does NOT require you to provide your real name, your child's real name or any identifying information. So, please do not write your name or other identifying information on the survey. You will need to provide a valid email address for entering into a random drawing for one of the five $100 Amazon gift cards. All provided email addresses will be destroyed once the receipt of e-gift card has been confirmed. Responses from the online survey that are completed and submitted will be automatically recorded for the purpose of the research. Your responses will be analyzed collectively with responses from other participants. The information collected will not place the individual at risk of criminal or civil liability or be damaging to the participants' financial standing, employability, educational advancement, or reputation.

Fair Treatment and Respect:
UNC Charlotte wants to make sure that you are treated in a fair and respectful manner. Contact the University's Research Compliance Office (704.687.1871 or uncc-irb@uncc.edu) if you have any questions about how you are treated as a study participant. If you have any questions about the project, please contact Wen-hsuan Chang at 612-406-9771 or wchang13@uncc.edu. You can also contact Dr. Ya-yu Lo at ylo1@uncc.edu.

Participant Consent
I have read the information in this consent form. I have had the chance to ask questions about this study, and those questions have been answered to my satisfaction. I agree to participate in this research project and allow my responses to be used for research purpose.

- o Yes
- o No

Appendix D: Email to Expert Survey Reviewers

Dear reviewers,

The survey of Parent Perceptions on School-based Parent Engagement Strategies in Secondary Transition is now ready for your review. Please login to the following link: http://uncc.qualtrics.com/jfe/form/SV_eXrIZBvv3xo250N to review the survey questions and procedure on Qualtrics. When reviewing the survey, please considering the following questions. Please send your thoughts/comments to me (wchang13@uncc.edu) by Feb/06/2021. Suggestions will be incorporated into the final survey. Thank you very much for your time and help with this survey study!

- How long have you taken to complete this survey? (If you have a different role, consider you were a parent with youth with disabilities and estimate how long it may take to complete this survey.)
- Does this survey logically appear to reflect accurately what it is supposed to measure (i.e., parent's perceptions and experiences of school-based parent engagement strategies)?
- Does this survey demonstrate relevance and cover a given area of content or ability?
- Does the answer options/criterion (5-point Likert scale) demonstrate a relationship between test scores and criterion?
- To what extent is this survey consistent with predictions that I made on the basis of parent engagement frameworks and models (see attached)?
- Do the survey questions make sense to you? What are the difficulties you have encountered while completing this survey?
- What other suggestions do you have for improving this survey to ensure the research questions can be answered?

Sincerely,

Wen-hsuan Chang, M.A.
Doctoral Candidate
Department of Special Education and Child Development
University of North Carolina at Charlotte

Appendix E: Parent Engagement Strategy Survey

The complete survey is included beginning the next page.

Parent Survey- Parent Engagement_Wen-Hsuan

Start of Block: Informed Consent/Invitation Letter

Title of the Project: Parent Perceptions on School-based Parent Engagement Strategies in Secondary Transition **Principal Investigators:** Wen-hsuan Chang, Doctoral Candidate in Special Education and Ya-yu Lo, Ph.D., Professor of Special Education at University of North Carolina at Charlotte **UNCC IRB #21-0199** You are invited to participate in a research study. Participation in this research study is voluntary. The information provided is to give you key information to help you decide whether or not to participate. 1) The purpose of this study is to to identify school-parent collaborations, facilitators, and barriers through parents' perspectives on school-based parent engagement strategies. 2) To be eligible for this study, you must (a) be a parent of at least one transition-aged (ages 14-21) youth with disability(ies) who currently have an individualized education program (IEP) and receive special education services in the United States, (b) live in the United States at the time of the survey, and (b) have access to a computer/tablet and WiFi to access the survey. 3) You will be asked to answer two questions: (a) whether you have been provided with the strategy, and (b) to what degree you believe the strategy is helpful to engage you as parent of youth with disabilities to support your child's educational activities. Additionally, you will be asked two open-ended questions about any barriers that prevent you from engaging in your child's school activities and additional strategies you have found helpful. Finally, you will be asked to respond to demographic questions about you and your child, and final thoughts about your experiences with school-based parent engagement strategies. If you are eligible (i.e., completed equal to or more than 90% of the survey questions) for a random drawing for 1 of 5 $100 Amazon gift cards, you will be asked to provide your name and email addresses to participate in the random drawing. 4) It will take you about 20-30 minutes to complete the survey. 5) Risks or discomforts from this research may include emotional distress/embarrassment toward certain questions (e.g., your demographic or your children's demographic characteristics). 6) You will not benefit personally by participating in this study. However, what we learn about your perceptions as parents may benefit other adults with disabilities and their families or caregivers. 7) Benefits may include having an overview on the current school-based parent engagement strategies in secondary transition planning. Cumulatively, the survey results may help schools to promote effective strategies to collaborate with parents of youth with disabilities and improve integrated services for the youth with disabilities. 8) Your privacy will be protected and confidentiality will be maintained to the extent possible. Your responses will be treated as confidential and will not be linked to your identity. After this study is complete, study data may be shared with other researchers for use in other studies without asking for your consent again. The data we share will not include information that could identify you. The results of the survey will be disseminated via academic journals and conferences.

Participation is voluntary. You may choose not to take part in the study. If you decline to participate, it will not affect your relationship with the University of North Carolina at Charlotte. If you have questions concerning the study, contact Wen-hsuan Chang by email at wchang13@uncc.edu. If you have further questions or concerns about your rights as a participant in this study, contact the UNC Charlotte's Office of Research Protections and Integrity at (704) 687-1871 or uncc-irb@uncc.edu.

Page Break

You will now be asked to provide your consent to participate in this research. This will include asking you to confirm that you understand the details we have provided about how we will use and protect your information.

By clicking on each of the boxes below, you agree that you have read, understand, and accept the information presented previously. Please note that if you fail to check any boxes, you will automatically be redirected to the end of this survey!

Consent Statements

	I agree/ I understand (1)
I agree to take part in this anonymous online survey. (1)	○
I confirm that I have read and understand the consent information above and I have had the opportunity to consider the information, ask questions, and have had these answered satisfactorily. (2)	○
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without any adverse consequences. (3)	○
I understand that research data collected during the study may be reviewed at by designated individuals from the University of North Carolina at Charlotte (UNC Charlotte, USA). I give permission for these individuals to access my information and research data. (4)	○
I understand that this project has been reviewed by the UNC Charlotte Office of Research Protections & Integrity. (5)	○
I understand who will have access to personal data provided, how the data will be stored, and what will happen to the data at the end of the project. (6)	○
I understand the information I provide will be disseminated without my identity through conference presentations or journal publications. (7)	○
I understand how to ask a question, raise a concern, or make a complaint. (8)	○
I agree for the research data collected in this study to be given to researchers, including those working outside of the UNC-Charlotte, to be used in other research studies. I understand that any data that leave the research group will be fully anonymized so that I cannot be identified. (9)	○

X→

You may print a copy of Consent form . If you are 18 years of age or older, have read and understood the information provided and freely consent to participate in the study, you may proceed to the survey. Please, click "**I agree to the terms above**" to continue to the survey.

- ○ I agree to the terms above. I am ready to **START** the survey (1)
- ○ I disagree to the terms above. I have decided **NOT** to participate in the study. (2)

Skip To: End of Survey If You may print a copy of Consent form . If you are 18 years of age or older, have read and unders... = I disagree to the terms above. I have decided <u>NOT</u> to participate in the study.

Page Break

Display This Question:

If You may print a copy of Consent form . If you are 18 years of age or older, have read and unders... = I disagree to the terms above. I have decided <u>NOT</u> to participate in the study.

Thank you very much for this information. I regret that you do not meet all of the eligibility criteria for the study. I really appreciate your time in answering these questions. Have a wonderful day!

Skip To: End of Survey If Thank you very much for this information. I regret that you do not meet all of the eligibility cr... Is Displayed

End of Block: Informed Consent/Invitation Letter

Start of Block: Eligibility Screening Form

Display This Question:

If You may print a copy of Consent form . If you are 18 years of age or older, have read and unders... = I agree to the terms above. I am ready to <u>START</u> the survey

To be eligible for participating in this survey, you must answer and pass all the following 3 questions.

Are you currently living in the United States?

- Yes (1)
- No (2)

Do you have at least one child with a disability who currently has an individualized education program (IEP) and receives special education services in the United States?

- Yes (1)
- No (2)

X→

How old is your child with disabilities? If more than one, please select all that apply.

- [ ] 0-13 years old (1)
- [ ] 14-21 years old (2)
- [ ] 22 years old or above (3)

End of Block: Eligibility Screening Form

Start of Block: End of Survey for ineligibles

Display This Question:

If Are you currently living in the United States? = No

Or Do you have at least one child with a disability who currently has an individualized education pr... = No

Or How old is your child with disabilities? If more than one, please select all that apply. != 14-21 years old

Or Consent Statements != I agree/ I understand

Or Consent Statements != I agree to take part in this anonymous online survey. [I agree/ I understand]

Or Consent Statements != I confirm that I have read and understand the consent information above and I have had the opportunity to consider the information, ask questions, and have had these answered satisfactorily. [I agree/ I understand]

Or Consent Statements != I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without any adverse consequences. [I agree/ I understand]

Or Consent Statements != I understand that research data collected during the study may be reviewed at by designated individuals from the University of North Carolina at Charlotte (UNC Charlotte, USA). I give permission for these individuals to access my information and research data. [I agree/ I understand]

Or Consent Statements != I understand that this project has been reviewed by the UNC Charlotte Office of Research Protections & Integrity. [I agree/ I understand]

Or Consent Statements != I understand who will have access to personal data provided, how the data will be stored, and what will happen to the data at the end of the project. [I agree/ I understand]

Or Consent Statements != I understand the information I provide will be disseminated without my identity through conference presentations or journal publications. [I agree/ I understand]

Or Consent Statements != I understand how to ask a question, raise a concern, or make a complaint. [I agree/ I understand]

Or Consent Statements != I agree for the research data collected in this study to be given to researchers, including those working outside of the UNC-Charlotte, to be used in other research studies. I

understand that any data that leave the research group will be fully anonymized so that I cannot be identified. [I agree/ I understand]

Or You may print a copy of Consent form . If you are 18 years of age or older, have read and unders... = I disagree to the terms above. I have decided <u>NOT</u> to participate in the study.

Or You may print a copy of Consent form . If you are 18 years of age or older, have read and unders... != I agree to the terms above. I am ready to <u>START</u> the survey

Thank you very much for this information. I regret that you do not meet all of the eligibility criteria for the study. I really appreciate your time in answering these questions. Have a wonderful day!

Skip To: End of Survey If Thank you very much for this information. I regret that you do not meet all of the eligibility cr... Is Displayed

End of Block: End of Survey for ineligibles

Start of Block: Section A Instruction

I am excited to let you know that you are eligible to take part in this survey study!

This survey includes two sections (52 questions in total). The first section has 25 questions. Each question asks: (a) **How often, if any, you have been provided with each presented strategy from your child's school teacher**, and (b) **how helpful you think each presented strategy is.**

The second section has 27 questions. You will be asked about your and your child's **demographic information.**

If you have more than one child, please keep your child with disabilities in the transition age (14-21) in mind when responding to the survey questions.

End of Block: Section A Instruction

Start of Block: Section 1

Q200 The first section has 23 Likert scale questions and 2 open-ended questions. You will be asked to rank on (a) How often do you experience each strategy from your child's school teacher, and (b) at what level do you think each of them to be helpful.

The first section has 23 Likert scale questions and 2 open-ended questions. You will be asked to rank on (a) **How often do you experience each strategy from your child's school teacher**, and (b) **at what level do you think each of them to be helpful.**

Please be sure to scroll the questions to the right.

	How often do you experience this strategy from your child's teachers in the past year?						At what level do you think each of the following strategies to be helpful for engaging you in the school activities?					
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
1. Teachers provide me with **information** regarding **parent training** opportunities (e.g., workshop, brochure, webinar, online resources).	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
2. Teachers **answered my questions** regarding my children's needs or if did not know the answer to a question **sought out information** to answer the question.	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
3. Teachers provide me with **resources** related to **my child's services** and **community resources** (e.g., internship opportunities, volunteers, job shadowing).	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
4. Teachers **coordinate/integrate resources** regarding my child's needs.	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
5. Teachers **communicate** with me **clearly** (e.g., avoid use of jargon, talk clearly)	○	○	○	○	○	○	○	○	○	○	○	○

Page Break

Q205 Question 6-10 out of 25

Please be sure to scroll the questions to the right.

	How often do you experience this strategy from your child's teachers in the past year?						At what level do you think each of the following strategies to be helpful for engaging you in the school activities?					
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
6. Teachers **invite me** to my child's **IEP meeting** through my preferred methods (e.g., phone call, text, email).	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
7. Teachers **provide notes** to keep me updated on my child's school performances.	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
8. Teachers **share transition assessment results** with me.	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
9. Teachers are **available** when I have a question regarding my child.	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
10. Teachers **revise** my child's education or future plan or **teaching strategies** based on **my feedback**.	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A

Page Break

Q208 Question 11-15 out of 25

Please be sure to scroll the questions to the right.

	How often do you experience this strategy from your child's teachers in the past year?						At what level do you think each of the following strategies to be helpful for engaging you in the school activities?					
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
11. Teachers **connect** me with other **service providers or community agencies** (e.g., community businesses, religious organizations) based my child's needs.	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
12. Teachers **invite and include me** to develop, review, and improve **school policies** that affect my child.	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
13. Teachers **invite me to be involved** in my **child's academic** learning activities at **home** (e.g., the teacher asks my child to complete homework with me).	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
14. Teachers **check-in** with me regarding myself and **my family's wellbeing**.	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
15. Teachers **express care** and sensitivity to **my emotional needs** (e.g., provide comforting words or encouragement when I express my emotions).	○	○	○	○	○	○	○	○	○	○	○	○

Page Break

Q209 Question 16-20 out of 25

Please be sure to scroll the questions to the right.

	How often do you experience this strategy from your child's teachers in the past year?						At what level do you think each of the following strategies to be helpful for engaging you in the school activities?					
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
16. When discussing my child's schoolwork or performance, teachers **identify my child's strengths**.	○	○	○	○	○	○	○	○	○	○	○	○
17. Teachers **consult with me** about **effective strategies** that myself and my family have used with success.	○	○	○	○	○	○	○	○	○	○	○	○
18. Teachers **initiate conversations** with me about my **culture** and family **background**.	○	○	○	○	○	○	○	○	○	○	○	○
19. Teachers obtain my family and **cultural values** and beliefs through surveys or interviews to **improve their instruction** for my child.	○	○	○	○	○	○	○	○	○	○	○	○
20. Teachers provide **flexible schedules** for me to participate in **activities**.	○	○	○	○	○	○	○	○	○	○	○	○

Page Break

Q206 Question 21-23 out of 25

Please be sure to scroll the questions to the right.

	How often do you experience this strategy from your child's teachers in the past year?						At what level do you think each of the following strategies to be helpful for engaging you in the school activities?					
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
21. Teachers **provide childcare** or some equivalent supports **when I come to school** for meetings or training.	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
22. Teachers **show continuous interest** to me/my **family's values and beliefs** (e.g., ask what beliefs I have and my family has toward my child's education and future).	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A
23. Teachers **provide a safe space** for me to **share my thoughts** when holding a parent-teacher meeting (e.g., does not share my or my child's private information with others without my permissions)	○	○	○	○	○	○	○	○	○	○	○	○
	Never	Rarely	Sometimes	Often	Always	N/A	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	N/A

Page Break

End of Block: Section 1

Start of Block: Section B- Experiences

Q11 24. What **barriers** could you identify that may **prevent you from** engaging in your child's school activities?

_____

_____

_____

_____

_____

Q12 25. What are other **strategies** that are not listed above but you think are **helpful** for engaging you in your child's educational/school activities?

_____

_____

_____

_____

_____

Page Break

End of Block: Section B- Experiences

Start of Block: Block 26

This is the **LAST** section. This section will ask you about your and your child's demographic information. This section has 26 multiple choice questions and 1 open-ended question.
All information will be kept confidential and will not affect any services you and your child are currently receiving.

End of Block: Block 26

Start of Block: Demographic information

Q13 1. How old are you?

- 18-24 years old (1)
- 25-29 years old (2)
- 30-34 years old (3)
- 35-44 years old (4)
- ≥ 45 years old (5)
- Prefer not to answer (6)

Q14 2. What is your biological/assigned sex?

- Female (1)
- Male (2)
- Other (3) _____

Q15 3. Is your biological/assigned sex align with your gender identity?

- ○ Yes (1)
- ○ No (please specify) (2) _____
- ○ Prefer not to answer (3)

Q16 4. Please select **one or more** boxes that best describe your identified race/races and ethnicity:

- ○ White (1)
- ○ Black or African American (2)
- ○ American Indian or Alaska Native (3)
- ○ Asian (4)
- ○ Native Hawaiian or Pacific Islander (5)
- ○ Other (6) _____
- ○ Prefer not to answer (7)

Display This Question:

If 4. Please select one or more boxes that best describe your identified race/races and ethnicity: = Asian

Q16 4. Asian (There are individual Asian checkboxes for people who identify as one or more of the following:

- ○ Chinese (1)
- ○ Filipino (2)
- ○ Asian Indian (3)
- ○ Vietnamese (4)
- ○ Korean (5)
- ○ Japanese (6)
- ○ Other Pacific Islander (for example, Tongan, Fijian, and Mashallese) (7)

Display This Question:

If 4. Please select one or more boxes that best describe your identified race/races and ethnicity: != Asian

X→

Q16 4. Are you Hispanic, Latino, or Spanish origin?

- ○ Yes (1)
- ○ No (2)

Display This Question:

If 4. Are you Hispanic, Latino, or Spanish origin? = No

X→

Q16 4. Are you:

- ○ Mexican, Mexican Am., Chicano (1)
- ○ Puerto Rican (2)
- ○ Cuban (3)
- ○ Another Hispanic, Latino, or Spanish origin (for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.) (4)

X→

Q17 5. Does your child self-identify his/her race/races and ethnicity the same as you do?

- ○ Yes (1)
- ○ No (2)

Display This Question:

If 5. Does your child self-identify his/her race/races and ethnicity the same as you do? = No

Q17 5. Please specify what race/races do your child self-identify

_____

X→

Q18 6. Which best describes your marital status?

- Married (1)
- Widowed (2)
- Divorced (3)
- Separated (4)
- Never married (5)
- Unmarried couple (6)
- Prefer not to answer (7)

Q19 7. What is your relationship to this youth?

- Father (1)
- Mother (2)
- Step father (3)
- Step mother (4)
- Foster father (5)
- Foster mother (6)
- Aunt (7)
- Uncle (8)
- Grandfather (9)
- Grandmother (10)
- Other (11) _____

Q20 7. How many children do you have?

- 0 (1)
- 1 (2)
- 2 (3)
- 3 or more (4)

Q21 8. What is the highest degree you have received or the highest level of school you have completed?

- Less than a high school diploma (1)
- High school diploma or equivalency (GED) (2)
- Some college, no degree (3)
- Associate degree (4)
- Bachelor's degree (5)
- Master's degree (6)
- Professional (MD, JD, DDS, etc.) (7)
- Doctorate (PhD, EdD) (8)
- Other (9) _____

Q22 9. During the past 12 months, what was your total household income before taxes? Include your income, your husband or partner's income, and any other sources of income.

- Less than $15,000 (1)
- $15,000 through $29,999 (2)
- $30,000 through $49,999 (3)
- $50,000 through $79,999 (4)
- $80,000 through $129,999 (5)
- $130,000 and greater (6)
- Prefer not to answer (7)

Q23 10. Is your youth with disabilities receiving free or reduced lunch?

- Yes (1)
- No (2)

Q24 11. Which of the following apply to you regarding your current working status?

- Employed for wages full time (1)
- Employed for wages part time (2)
- Self-employed (3)
- Out of work (4)
- Homemaker (5)
- Student (6)
- Unable to work (7)

Q25 12. In which state/federal district/territory do you currently live? (please select from the drop-down the list)

▼ Alabama (1) ... Wyoming (54)

Q26 13. To better understand the urban/rural locations of your residence, we would like to know the ZIP code where you are living now. Please specify the ZIP code below:

- ZIp code (1) _____
- Prefer not to answer (2)

Q27 14. How **often** do you interacting with school teachers of your youth? (e.g., talk with your child's teachers over the phone, email back and forth with the school staff, participate in the child's schoolwork as volunteers).

- ○ Every day (1)
- ○ Every week (2)
- ○ Every month (3)
- ○ Every year (4)
- ○ Never (5)
- ○ Other (6) _____

Q28 15. Thinking about this **past school year**, how satisfied are you with each of the following: (your child's school, teachers, education, homework)?

	Extremely satisfied (1)	Somewhat satisfied (2)	Neither satisfied nor dissatisfied (3)	Somewhat dissatisfied (4)	Extremely dissatisfied (5)	N/A (6)
School (1)	○	○	○	○	○	○
Teachers (2)	○	○	○	○	○	○
Education (3)	○	○	○	○	○	○
Homework (4)	○	○	○	○	○	○

Q29 16. In the **past year,** has this youth lived with you?

- Yes (1)
- No (please specify below) (2) _____

Display This Question:

If 16. In the past year, has this youth lived with you? = Yes

Q29 16. How **frequently** has this youth lived with you?

- Every day (1)
- Every week (2)
- Every month (3)

Q30 17. What is your child's biological/assigned sex?

- Female (1)
- Male (2)
- Other (3) _____

Q31 18. Is your child's biological/assigned sex align with his or her gender identity?

- Yes (1)
- No (please specify) (2) _____
- Prefer not to answer (3)

Q32 19. Which of the following **disability categories** best describe this youth's diagnosis? (Check all that apply)

- [ ] Specific learning disability (1)
- [ ] Other health impairment (2)
- [ ] Autism spectrum disorder (3)
- [ ] Emotional disturbance (4)
- [ ] Speech or language impairment (5)
- [ ] Visual impairment, including blindness (6)
- [ ] Deafness (7)
- [ ] Hearing impairment (8)
- [ ] Deaf-blindness (9)
- [ ] Orthopedic impairment (10)
- [ ] Intellectual disability (11)
- [ ] Traumatic brain injury (12)
- [ ] Multiple disabilities (13)

Q33 20. Is your child still in school?

- ○ Yes (1)
- ○ No (2)

Q34 21. If this youth is still in school, what zip code is this youth's current school?

- ○ Zip code (1) _____
- ○ Don't know (2)
- ○ Prefer not to answer (3)
- ○ Not applicable (this youth is not in school) (4)

Q35 22. If this youth is still in school, what grade level was this youth attending during this past school year (2019-2020)?

- ○ 8th grade (1)
- ○ 9th grade (2)
- ○ 10th grade (3)
- ○ 11th grade (4)
- ○ 12th grade (5)
- ○ Other (6) _____
- ○ Not applicable (this youth is not in school) (7)

Q36 23. Which of the following best describes **this youth's work at school last year**? (Please select from the drop-down list)

▼ Excellent (1) ... Terrible (5)

Q37 24. If this youth was **NOT** in school, it's because he/she:

- Graduated (1)
- Took a test and received a diploma or certificate without taking all of his/her high school classes (2)
- Dropped out or just stopped going (3)
- Was suspended (4)
- Was expelled (5)
- Some other reason (please specify) (6) _____
- My child was in school (7)
- Not applicable (this youth is not in school) (8)

Q38 25. Was the youth receiving special education services during the past school year **(2019-2020)**?

- Yes (1)
- No (2)

Q39 26. Does the **COVID-19** impact your involvement in your child's/children's educational activities?

- Yes (1) _____
- No (2)

Display This Question:

If 26. Does the COVID-19 impact your involvement in your child's/children's educational activities? = Yes

Q39 26. Compare to your involvement **before** the COVID-19 (January, 2020), how would you describe **your involvement** in your children's **educational activities**?

- A Lot Less (1)
- Somewhat Less (2)
- No Changes (3)
- Somewhat More (4)
- A Lot More (5)

End of Block: Demographic information

Start of Block: Section C-Demographic Characteristics- Students

Page Break

Q40 27. This is the **LAST** question of the survey. Before you submit your answer, is there anything else you would like to tell us about your experiences with school-based parent engagement strategies?

_____

_____

_____

_____

_____

End of Block: Section C-Demographic Characteristics- Students

Start of Block: Block 21

Page Break

Thank you for taking the time to complete this survey! If you have any further questions, please feel free to contact the principal investigator of this research study, Wen-hsuan Chang, at wchang13@uncc.edu or the responsible faculty, Dr. Ya-yu Lo, at ylo1@uncc.edu. Please click to the link below to enter your email address if you would like to enter into a lottery drawing for 1 of 5 winners to receive $100 Amazon gift card. Your information will not be shared with anyone, and we will only use it to follow up for the gift card should you be selected. Click here: Random drawing for a $100 Amazon gift card

End of Block: Block 21