Perceptions of Speech-Language Pathologists on Childhood Bilingualism

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PERCEPTIONS OF SPEECH-LANGUAGE PATHOLOGISTS ON CHILDHOOD BILINGUALISM

A thesis submitted in partial fulfillment of
the requirements for the degree of
MASTER OF SCIENCE
in
SPEECH LANGUAGE PATHOLOGY

by
Sherlie V. Paz

2021
To: Dean Ora Strickland  
College of Nursing and Health Sciences

This thesis, written by Sherlie V. Paz, and entitled Perceptions of Speech-Language Pathologists on Childhood Bilingualism, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this thesis and recommend that it be approved.

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Date of Defense: July 1, 2021

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Vice President for Research and Economic Development  
and Dean of the University Graduate School

Florida International University, 2021
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ABSTRACT OF THE THESIS

PERCEPTIONS OF SPEECH-LANGUAGE PATHOLOGISTS ON CHILDHOOD BILINGUALISM

by

Sherlie V. Paz

Florida International University, 2021

Miami, Florida

Professor Alliete Alfano, Major Professor

A total of 320 Speech-Language Pathologists (SLPs) completed a survey stating their perceptions on childhood bilingualism for typically developing children and children with disabilities. Based on the number of significant responses, 292 participants were analyzed utilizing a binary logistic regression to identify whether SLPs thought childhood bilingualism was advantageous or neutral, while incorporating the predictors of bilingual status and bilingualism education received. Additionally, a content analysis was conducted on 173 participants who chose to respond to an open-ended question stating their additional perceptions on childhood bilingualism. Results revealed that bilingual status did not predict the probability of an advantageous perception for typically developing children, but it did for children with disabilities; however, SLPs who had received bilingualism education had a higher probability of having advantageous perceptions in both populations. Qualitative results revealed the use of appraisals related to multiple themes (i.e., bilingualism, other professionals, SLPs and need for more education).
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Perceptions of Speech-Language Pathologists on Childhood Bilingualism

Introduction

Background

In an ever-growing globalized society, bilingualism and multilingualism have become a topic of interest in many international markets (e.g., social and online communications), leading the value of learning multiple languages to increase in the past 20 years (Genesee, 2009; Marinova-Todd et al., 2016). As of 2015, over 20% of the United States population is bilingual with Spanish being the second most spoken language after English, primarily due to the high influx of immigrants from Spanish-speaking countries. In the world, it is estimated that approximately half of the world's population speaks more than one language with English being the global dominant second language along with many other merging languages like Mandarin (Genesee, 2009; Grosjean, 2020; U.S. Census Bureau, 2015). Bilingual education in the United States may be influenced by many reasons. Two of the primary reasons may be the lack of support towards bilingualism education and lack of cultural competence among professionals. These reasons pose the question, why is a country like the United States, with a high number of immigrant population and many languages spoken, falling behind in educating bilingual individuals considering the variety of languages spoken in comparison to the rest of the world? Bilingual education in the United States has shifted from being progressively permissible to a problem that needs to be remediated in order to promote English language (Gándara & Escamilla, 2017). Bilingual education programs along the history of the United States have been incredibly influenced by political and social issues that have caused (and continue to cause) great debate among the American
public. As the immigrant population in the United States has grown, so has the number of languages spoken and the need to provide English education to children who are school aged and have little English knowledge. In efforts to incorporate these children into schools, many laws have been passed throughout the years; however, there has been minimal success in the effective implementation of these laws. The most recent law is the “English Language acquisition, language enhancement and academic achievement Act”, though efforts continue to place greater emphasis on teaching English as opposed to reinforcing or maintaining bilingualism (Bialystok, 2018; Gándara & Escamilla, 2017; Kohnert, 2007). Similarly, some professionals continue to provide misinformation about bilingualism to many families around the United States, resulting in recommendations of implementing a monolingual approach for children, whether it be for typically developing children or children with disabilities. Professionals making these recommendations have included doctors, psychologists, educators, and speech-language pathologists (SLPs). Therefore, how does this affect minority language families for whom bilingualism is not optional but a daily reality? An additional question relates to how these recommendations are influencing families’ decisions to abandon their native language. Specifically, for our study, we investigated the perceptions held by SLPs and speech-language pathology assistants (SLPAs) on childhood bilingualism to better understand the rationale behind these recommendations, along with a discussion of what the literature provides regarding childhood bilingualism and education for both typically developing children and children with disabilities.
Bilingualism

Bilingualism most often refers to the use of two (or more) languages; however, it has been defined differently across different researchers. Grosjean defined bilingualism as “the regular use of two (or more) languages [by] those people who need and use two (or more) languages in their everyday lives” (Grosjean, 1992). Bilingual individuals can be classified as simultaneous bilinguals or sequential bilinguals. Simultaneous bilinguals are those who have been exposed to two languages since or shortly after birth and sequential bilinguals are those who have been exposed to a second language (L2) after exposure to a first language (L1), usually after 3 years of age (Beauchamp & MacLeod, 2017; Kay-Raining Bird, Genesee, & Verhoeven, 2016). For many bilingual individuals, speaking two languages developed naturally, whether it was based on geographical location or cultural influences. Nevertheless, this phenomenon has been of great interest for many researchers who continue to explore the basis of bilingualism. Thus far, evidence has supported a plethora of benefits that stem from bilingualism, including linguistic, cognitive, neurological, social, and professional benefits, discussed further on (Genesee, 2009; Genesee, 2015). However, research shows that despite all the advantages of being bilingual, there are still confounding views about it (Genesee, 2009; Howard, Gibson & Katsos, 2020; Lee et al, 2015; Pilotti et al, 2015).

Understanding the myths about bilingualism is important to determine the decision process involved in bilingualism education/intervention and the influence for the recommendations provided by professionals (in this case SLPs). Many myths related to bilingualism have been dismantled by research. One proliferative myth is the belief that bilingualism leads to language confusion and possible language delays. In the speech-
language pathology field, one of the most common questions parents of children with disabilities pose is “Won’t two languages confuse my child?” Research has proven that the answer is decidedly no (Genesee, 2009; Helot & Young, 2002; Howard, Gibson & Katsos, 2020; Pilotti et al, 2015; Werker & Byers-Heinlein, 2008). This myth is commonly known as the monolingual brain approach and research supports the statement that bilingualism does not lead to language confusion or delay in neither typically developing children nor children with disabilities, such as individuals with Autism Spectrum Disorder (ASD), Down Syndrome, Specific Language Impairment (SLI), Hearing Loss or any other language-related disorders (Beauchamp & MacLeod, 2017; Bialystok, 2018; Genesee, 2009; Grosjean, 1992; Howard, Gibson & Katsos, 2020; Kay-Raining Bird, Genesee, & Verhoeven, 2016; Kohnert, 2007; Werker & Byers-Heinlein, 2008). Other common myths about bilingualism include the “time on task” myth and the “younger is better myth” (Genesee, 2009; see Genesee, 2015). Briefly discussed, the “time on task” myth refers to the notion that despite bilingual children not receiving equal exposure in both languages, then they will present developmental delays; nonetheless, evidence suggests that bilingual children achieve developmental milestones similar to monolingual children of their same age (Genesee, 2009; Genesee, 2015; Helot & Young, 2002; Howard, Gibson & Katsos, 2020; Werker & Byers-Heinlein, 2008). The “younger is better” myth refers to the idea that the earlier a child is exposed to a language, then they are more likely to achieve native-like proficiency; however, the literature reports that this is not decidedly factual and children who learn at a later age can attain similar skills as their monolingual counterparts (Genesee, 2015).
Bilingualism has proven to have benefits from early childhood into adulthood and beyond. Research has shown the cognitive, neurological, linguistic, and social benefits of learning multiple languages. At the cognitive level, bilingual individuals tend to perform higher in tasks such as those related to attention, executive functioning, and problem solving (Genesee, 2009), since these advantages allow for the focus of attention to separate the two languages (Spitzer, 2016). Marian and Shook (2012) described this as language co-activation, the automatic function that occurs even before a word is finished. In the case of bilingual speakers, this activation is occurring in both languages regardless of the auditory input to the language it belongs to. This competition between languages may lead to language conflict. Research has shown how bilingual speakers tend to perform slower in naming tasks secondary to the activation and interference of both languages and state that this difficulty may lead to word finding difficulties, slower performance in verbal fluency tasks and increased tip of the tongue experiences in bilingual speakers resulting in the need to maintain control between both languages, as well as the access a person has to a language at a given time. Based on this contrast, the bilingual brain relies on executive functions (such as attention and inhibition) which has been shown to be greater in bilingual speakers than monolingual speakers as shown in activities such as the Stroop task (Howard, Gibson & Karsos, 2020; Spitzer, 2016).

Similarly related to the cognitive benefits, neurological and structural findings such as brain imaging of the bilingual brain have shown the activation of different regions in the brain that contribute to attention and inhibition skills, such as the dorsolateral prefrontal cortex, anterior cingulate cortex, bilateral supramarginal gyri, and left inferior frontal gyrus which contribute to linguistic cognitive control (Marian &
Shook, 2012; Spitzer, 2016); as well as higher gray matter volume in the left parietal cortex. Additionally, bilingual speakers managing multiple languages also experience differences in neuronal activation affecting cognitive control mechanisms, auditory attention, and sensory processes.

At the linguistic level, studies have reported that bilingual children tend to be slightly delayed in language skills and present with smaller vocabulary compared to monolingual children entering preschool (Bialystok et al., 2009; Kay-Raining Bird, Genesee, & Verhoeven, 2016). In these studies, bilingual children were analyzed through single language measures. That is, each language was receptively and expressively analyzed to compare it to monolingual speakers. However when the total vocabulary of bilingual children was analyzed, findings reported a greater number of words in both languages combined (Kay-Raining Bird, Genesee, & Verhoeven, 2016). Additionally, it is important to acknowledge the evaluation of vocabulary in bilingual children. There have been confounding views whether to evaluate total vocabulary or conceptual vocabulary. Conceptual vocabulary refers to the concepts a child knows. In the case of bilingual children, concepts are counted once, regardless of whether they know it in both languages, and not for the words they know (Core et al., 2013). In other words, if the child knows the words house and casa, only the concept of a house is considered as part of their vocabulary. In a study conducted on preschool bilingual children, results demonstrated a smaller conceptual vocabulary, but a comparable total vocabulary to their monolingual peers (Core et al., 2013). However, different studies conducted with bilingual preschool children demonstrated that total vocabulary may be smaller in one language than the other due to less proficiency or exposure in the language, and it also
demonstrated that children had comparable conceptual knowledge in comparison to monolingual peers (Hammer et al., 2014; Mancilla-Martinez, Greenfader & Ochoa, 2019; Mancilla-Martinez, & Vagh, 2013). Therefore, it is important to consider both conceptual and total vocabulary in the vocabulary development of bilingual children.

Additional studies in linguistic development of young children in the areas of phonology, lexicon, morpho-syntax, grammar, and literacy indicated that bilingual children, regardless of limiting factors such as socioeconomic status (SES) and language exposure, were slightly behind monolingual children in language development (i.e., slower language processing of unknown words in the non-dominant language, delayed vowel acquisition of the L2, reduced vocabulary growth in each language, less accuracy in morphosyntactic structure tasks, letter-word identification and overall emergent literacy skills) prior to entering preschool (Hammer et al., 2014). Nonetheless, studies indicated that although bilingual children appeared behind initially, they tended to catch up to their monolingual peers during their preschool years. Evidence supports improvement in the tasks mentioned above such as faster processing of known words and improved processing with exposure, comparable speech sound production accomplished by preschool, similar acquisition of morphosyntactic structure as their monolingual peers, and better performance in emergent literacy tests and decoding tasks (Hammer et al., 2014). Additionally, the evidence emphasized that smaller vocabulary in each language does not have implications for lexical knowledge or academic development, therefore leading to overall greater vocabulary in both languages, as well as better memory, visuo-spatial skills, enriched creativity (Beauchamp & McLeod, 2017; Bialystok et al., 2009; Hammer et al., 2014; Marian & Shook, 2012).
Comparably, bilingualism can aid in improvements in learning not only academically but also socially. Findings on pragmatic skills of bilingual children displayed better understanding of the speaker’s emotions and comparable conversational breakdown repairs as monolingual children of their same age group (Hammer et al., 2014). More so, social skills extend into adulthood allowing for better adaptability to different environments and learning other languages. When compared to monolingual adults, bilingual adults have capabilities to easily learn new words. In addition to increased cognitive reserve, which aids, as the brain ages, in promoting better memory and executive function skills, as well as protecting against degenerative diseases even though increased brain atrophy may be present (Marian & Shook, 2012; Spitzer, 2016).

It is worth mentioning that the benefits of bilingualism are more complicated when the question arises between spoken/oral languages and signed languages. Even though being fluent in sign and oral language is considered being a bimodal bilingual, the brain anatomy and cognitive benefits are not the same as those of oral bilinguals. Research reports that bimodal bilinguals do not have to suppress the second language; therefore, cognitive control is not enhanced, nor is there any increased grey matter volume in structures where oral bilinguals have increased volume compared to monolinguals (Spitzer, 2016). Regardless, bilingual children with hearing loss, who use spoken language and use hearing technology, had equivalent performance in overall language and expressive skills to monolingual children with hearing loss. In fact, results showed that bilingual instruction aided in the overall development of English as an L2 through the support of the home language (Bunta et al., 2016; McDaniel et al., 2019).
Bilingualism Education

When it comes to the perceptions of bilingualism, the societal views vary from region to region and across individuals. Predominantly, there are two main perceptions on bilingualism: 1) a speaker’s cultural linguistic identity and 2) a tool for educational and professional opportunities (Pilotti et al, 2015). The language used in a bilingual community will vary between two languages, where the dominant language (e.g., English in the United States) will be used in professional settings and the minority language (e.g., Spanish or Mandarin in the United States) will be used in personal or informal settings. When the minority language is an imported immigrant language it is often discouraged, especially at the educational level where the dominant language is favored. This has implications for factors deeper than language such as identity, heritage, culture, and familial interactions suggesting that less exposure to a non-dominant language will decrease the motivation to maintain its usage. However, those who grow up bilingual have more personal ties to the significance of bilingualism. In other words, social and cultural benefits of bilingualism allow people to communicate and relate to different cultures and individuals different from their own, not only through oral language but also through body language and the ability to understand and explore other cultures.

One of the most common issues among second generation children of immigrant families is the loss of the heritage/native language. This results from poor support of the minority language and the emphasis placed on the dominant language to ensure academic success. Minority language loss negatively affects the social and communicative relationships between the family and members of that heritage community. Language exposure has been evaluated amongst bilingual and monolingual families with various
factors affecting exposure such as SES and whether one or both parents speak the native language. In a longitudinal study conducted by Hoff et al., results showed that even in high SES families, children who received bilingual exposure until the preschool years lagged behind monolingual children; however, with continued exposure through the preschool years, these children were able to gain skills over and above their monolingual peers in overall language (2014). Additional results revealed that children with one parent speaking the native language and the other parent speaking the dominant language, children tended to have higher language skills in the dominant language and less in the minority language, hence resulting in children who were less bilingual in terms of expressive language. Regardless, the study found that home exposure of the minority language plays a significant role in the maintenance and development of the minority language, as well as aiding in academic success during the school years. In other words, the evidence suggests that immigrant families should be encouraged to continue to speak native languages at home especially since lack of exposure warrants decreased opportunity to communicate with members of the family and community. It also supports bilingual programs for children who do not have exposure at home. Therefore, it is important for professionals to be mindful of the negative effects that can arise from recommending against a family’s native language use and the support needed to make bilingualism attainable through bilingual education.

Bilingual education has been defined in different ways amongst different researchers who viewed bilingualism in terms of achieving different goals, whether it be promoting competence in two or more languages as a media of instruction in academic curriculum or encouraging proficiency in a speaker’s native tongue while slowly
transitioning them into the dominant language (i.e., English) (Bialystok, 2018). Bialystok referred to bilingual education as “an umbrella term which encompasses a range of education programs...which includes more than one language in the curriculum which may or may not be related to the home or community language” (2018). Based on these definitions, clearly the education of bilingual children varies based on different situations and goals of where it's being implemented. In the case of the United States, over a thousand bilingual programs are offered and most often they are centered around students who are considered English as a Second Language (ESL) or English Language Learners (ELL), who come from a minority group and are at risk of academic failure; however, the success of these programs is based on English proficiency and mastery of the language, while disregarding proficiency in the native language (Bialystok, 2018; Kohnert, 2007).

According to Gandara and Escamilla, bilingual education programs fall within two categories: transitional bilingual programs which focus on ESL students whose primary language is not English; and dual language bilingual programs which aim to achieve bilingualism and biliteracy for either monolingual English speakers who desire to learn other languages as well as ESL students (Gandara & Escamilla, 2017). Briefly discussed, transitional programs focus on teaching English and are often referred to as subtractive since most often it leads to students losing their native language and limiting cultural diversity. Other researchers argue that these programs aid in the development of English language acquisition, since instruction is initially provided in the native language. Dual language education can be categorized into three types: developmental or maintenance dual language, two-way immersion programs, and immersion programs in languages other than English. Primary focus is on the proficiency of spoken and written
language as well as cultural competence and equivalent academic success as students not in the program. These programs are often referred to as additive since they aim to add to the student’s linguistic competencies and repertoires.

In studies analyzing the effectiveness of bilingual programs, encompassing instruction from elementary school through high school, studies found that bilingual students in bilingual programs had significantly better outcomes in all language measures, higher chances of going to college and receiving a higher income/positions in the workplace (Gandara & Escamilla, 2017). This brings to light whether the focus of bilingual programs in the United States should emphasize only on the English instruction approach or focus on overall bilingual proficiency. Further research on literacy and math skills showed that English proficient (EP), ELLs and low SES students who had received bilingual instruction had higher English proficiency scores than students in mainstream English programs who had received instructions in English only. Similarly, it was found that students in bilingual programs had greater progress in grades and overall academics (Bialystok, 2018; Kohnert, 2007). Other studies across different populations such as early childhood, grade levels, ethnicities, races, and middle/upper SES had similar findings of performance in reading and math skills when they were given bilingual instruction (see Bialystok 2018); hence, proving there is no evidence of difficulty in the development of a majority language proficiency through bilingual education and showed that there was better development and maintenance of the minority language. Not only did it serve to showcase academic advantages, but also executive function skills were observed to be stronger in students in bilingual programs demonstrating greater cognitive skills and performance.
Bilingualism in Children with Disabilities

One of the common and most persistent views towards bilingualism is the thought that bilingualism is not attainable for children who are not typically developing and who present any linguistic or cognitive difficulties. Growing evidence continues to demonstrate that bilingualism does not add any burden to the language acquisition or achievements of children with disabilities (Alfano, 2015; Beauchamp & MacLeod, 2017; Howard, Gibson & Katsos, 2020; Kay-Raining Bird, Genesee, & Verhoeven, 2016; Kohnert, 2007; Bialystok, 2018). In populations with poor cognitive skills and below average IQ levels, findings demonstrate similar performance in overall communication ability between children with average and below average IQs who were in a bilingual immersion program (Bialystok, 2018).

Studies conducted on children with language impairments such as specific language impairment (SLI) also showed no additional burden placed by bilingualism. Results on these populations vary due to the nature of the disorder and the variation of limitations present across languages; however, the evidence remains favorable for bilingual acquisition. In a study conducted on monolingual and bilingual children, half who were typically developing and the other half children with SLI, results showed that children with SLI displayed poorer performance in linguistic and vocabulary tasks; however, bilingualism did not place additional burden, nor was there an interaction between bilingualism and the language impairment that influenced these results (Bialystok, 2018). Additional studies in sequential and simultaneous bilingual and monolingual children who are typically developing or with SLI found similar patterns within groups. That is, typically developing and SLI bilingual children perform lower in
standardized and morphosyntax tasks than typically developing and SLI monolingual children, but no difference was found in narrative skills. Regardless, findings revealed children catch up to their monolingual counterparts and the period of time is sooner if the L1 & L2 are linguistically similar and children can grow up as simultaneous bilinguals with home exposure to the L1 (Bialystok, 2018; Kay-Raining Bird, Genesee, & Verhoeven, 2016; Kohnert, 2007).

Likewise, evidence reported that simultaneous and sequential bilingual children with ASD perform similarly in receptive and expressive language tasks as well as pragmatic and overall communication abilities as monolingual children with ASD (Beauchamp & MacLeod, 2017; Bialystok, 2018; Howard, Gibson & Katsos, 2020; Kay-Raining Bird, Genesee, & Verhoeven, 2016; Kohnert, 2007). Most importantly, studies have emphasized the importance of assessing children in both languages since often bilingual children present discrepancies in vocabulary size in each language but overall present comparable vocabulary size in both languages to that of monolingual children. In children with Down syndrome and other cognitive disorders, limited research has been conducted; nonetheless, evidence shows they tend to perform equivalently as typically developing children of the same mental age. Also, no evidence supports additional burdens to the development of the first language by introducing a second language, whether it be at home or in school (Bialystok, 2018; Buckley, 2002; Kay-Raining Bird, Genesee, & Verhoeven, 2016; Kohnert, 2007).

Across these groups, evidence supports the tendency for these individuals to have predicted communication and language difficulties associated with their specific disorders; however, in the long run when compared to monolingual speakers with their
same disorder, the performance tends to be equivalent. That is, apart from children with SLI who tend to perform slightly below monolingual children with SLI in language tasks (Kay-Raining Bird, Genesee, & Verhoeven, 2016). For this population, it should be noted, the research does not necessarily indicate if children were tested in their dominant language or both languages. Nevertheless, the amount of exposure provided or not provided can help predict the child’s communication abilities and language development in typically developing children and children with disabilities. It is worth mentioning that evidence continues to emphasize that the language limitations experienced due to the developmental disorders do not impact the ability to become bilingual. Nevertheless, when it comes to the education of bilingual children with developmental disorders, limited research exists, arguably because bilingual children with disabilities are most often instructed in the dominant language. Despite this, the studies conducted in the education of children with disabilities suggest that children are able to become bilingual and instruction of both languages should be supported by educators, professionals, and parents. It is particularly implant to continue to inform and further educate parents and professionals towards what the evidence demonstrates.

An important factor in the needed growth for bilingual programs in the United States is the substantial international immigration of people who speak one language, where bilingualism is no longer an option but an everyday life need (Alfano, 2015; Kay-Raining Bird, Genesee, & Verhoeven, 2016). Children in immigrant families belong to the largest, fastest growing group of children in the United States, where approximately 20% speak a language other than English (Lee et al, 2015). Parent knowledge about language development influences their interactions with their children and subsequently
their children’s language development. Parental decisions in raising bilingual children are highly dependent on community influences and personal knowledge of language. Community influences often include preservation of culture, religion, values, and emotional family connections. Previous studies have shown that parental perceptions of bilingualism vary for both parents of children with and without disabilities (Howard, Gibson & Katsos, 2020; Lee et al, 2015; Marinova-Todd et al., 2016). Parental perceptions include the consideration of bilingualism to be an asset which they claim provides better opportunities in life, better social and familial interactions and preservation of heritage and culture. Nevertheless, parents still believe that bilingualism comes with a downside where acquisition could come down to the functional level of a child with a disability or the child fitting into a dominant language society to avoid embarrassment or confusion by being introduced to a new language (Genesee, 2009; Howard, Gibson & Katsos, 2020; Lee et al, 2015; Marinova-Todd et al., 2016).

There has been a significant amount of discouragement provided from professionals (such as teachers, doctors, psychologists, and SLPs) in recommending bilingualism to parents of children with disabilities (Beauchamp & MacLeod, 2017). Negative consequences linked to this misinformation include inability to communicate with family members, leading to poor parent-child relationships, the use of a non-fluent language leading to difficulty in expressing everyday contexts due to the lack of proficiency in the language, and limiting children’s extended relations in the community, culture, and life opportunities. Ultimately, advising a monolingual approach would only create a greater gap in familial relationships, as the child becomes more proficient in the
dominant language and parents and other minority language speaking family members are unable to communicate effectively with one another.

Professionals must keep in mind all these factors when faced with these questions. Yet, there is a continued encounter with professionals who advise against bilingualism to families who depend on a minority language. In this study, we analyze the perceptions of SLPs on childhood bilingualism, to better understand the influence of their recommendations for bilingualism.

**Speech-Language Pathologists Demographics**

According to the American Speech and Hearing Association (ASHA), an SLP is the one who “diagnoses and treats speech, language, communication, and swallowing disorders, as well as provides training and education to family/caregivers and other professionals” (n.d.). As of 2019, approximately 8% of SLPs are reported to be bilingual. Amongst this group, 82 spoken languages other than English were reported, as well as ASL and other sign/manually coded languages; within this population, 66% of the individuals were Spanish speakers. The majority of bilingual service providers reported working in schools (43.4%) and health care settings (43.2%) found primarily in California, New York, Texas, and Florida (ASHA, 2021). These numbers emphasize the lack of culturally and linguistically diverse professionals in the SLP field, in comparison to the ever growing cultural and linguistic diverse population in the United States. This poses the question: are all clinicians competently able to provide services to these populations?

According to ASHA’s code of ethics, SLPs should provide services within their scope of practice, including competency in providing bilingual services to those who
need it. For clinicians who are not competent to provide bilingual services, they must ensure to aid patients in receiving appropriate services. Survey studies conducted among SLPs across the country have reported that although a high percentage of SLPs (approx. 70%) feel comfortable in evaluating and treating culturally and linguistically diverse children, only half of those individuals reported being competent enough to do so (Alfano & Medina, in press), which involves taking into consideration the misdiagnosis of language disorders versus language difference in many L1 children (Lormis, 2017).

Pertaining to our study, these findings confirm that the lack of preparedness may be an influence in the recommendations being provided to parents and caregivers.

Studies analyzing SLP graduate students displayed a lack of cultural and linguistic diversity among the students in the programs, mainly influenced by multiple factors such as financial or social barriers and lack of familial support (Medina, Alfano & Moore, in press). Additionally, these studies reported a lack of education in clinical services for culturally and linguistically diverse populations (Alfano, Medina & Moore, in press). Lormis (2017) reported that a limited number of universities in the United States offer bilingual courses in their SLP programs, hence, influencing the preparation of SLPs in treating bilingual populations. Alfano, Medina, & Moore (in press) conducted a study about the inclusion of culturally-linguistically diverse courses in an SLP graduate program in efforts to provide evidence towards the encouragement of culturally-linguistically diverse programs across the country. Findings revealed that overall, adding culturally-linguistically diverse courses to a program’s curriculum provided students with better context to serve culturally-linguistically diverse communities, as well as revealing that students in a culturally-linguistically diverse driven program tended to perform better
in board exams. Still, further research is needed in this area, especially due the limited number of SLPs who have competent bilingualism education. This provides a closer look at the reality of the competency held in bilingual services by SLPs and the need for further training to better aid the ever growing culturally-linguistically diverse populations.

**Study Purpose & Research Questions**

As previously discussed, research supports bilingual intervention for typically developing children and children with disabilities. It also encourages professionals to support parents who wish to raise their children bilingually and calls for a better communication approach between bilingual parents and professionals (Howard, Gibson, & Katsos, 2020). Even with all the existing literature refuting the myths related to childhood bilingualism, there is still an alarming rate of negative perceptions towards the decision of raising children bilingually and implementing intervention through a bilingual approach. This study focuses on the further investigation of the perceptions of SLPs on childhood bilingualism in efforts to analyze the factors influencing recommendations provided to culturally and linguistically diverse populations in the United States. The specific research questions are as follows:

1. What are the perceptions of childhood bilingualism between bilingual SLPs versus monolingual SLPs?
2. What are SLPs’ perceptions of childhood bilingualism in relation to typically developing children versus children with disabilities?
3. Does bilingualism education received by SLPs influence their perceptions of childhood bilingualism?
Methods

Procedures

An online survey questionnaire was developed and approved by the Florida International University Institutional Review Board. The online survey question format consisted of multiple choice and free response questions with approximately 5-8 minutes completion time. The survey was available in English and Spanish globally and recruitment targeted major cities in the United States as well as other countries. The survey demographic questions included place of residence, language(s) spoken, highest education level, and any formal bilingualism education received and where it was received (see Appendix). Two questions were included to record the perceptions of childhood bilingualism: one for perceptions in typically developing children and one for perceptions in children with disabilities. Participants were given the option of recording their perceptions of childhood bilingualism as: advantage, disadvantage, neutral, confusion, and other (fill in response). Lastly, an optional open-ended question was included for participants who had additional thoughts of childhood bilingualism.

Social media platforms (Facebook and Instagram), private practice clinics and facilities, daycares, startup/head start programs, list serves professional groups, and recruitment websites/online flyers were used for the intended purpose of recruiting participants to complete this online survey questionnaire. The online survey was opened until February 28, 2021, to ensure that enough data was collected. Consent was obtained online before the participant was able to begin the survey. The participant was given the option to consent to the online survey after reading a brief paragraph. To continue with the online survey, the participant must have provided consent. There is a limited
probability of coercion or undue influence involved in this study and the participant was informed during the consent process. No identifying data was collected during this study. (e.g., no data on name, email, phone number was collected). All participants were assigned a study identification number for analysis.

**Research Design**

A mixed methods research design was utilized to integrate quantitative and qualitative data obtained from a survey questionnaire and an open-ended question asking if participants had further thoughts on bilingualism in efforts to explore the perceptions expressed by SLPs in diverse ways. The quantitative data obtained from the survey questionnaire which included demographics, education level, formal bilingualism education received and perceptions of childhood bilingualism for typically developing children and children with disabilities were analyzed using statistical methods, while narrative data generated from the open-ended question were analyzed for themes and appraisal through content analysis.

**Sample**

The survey questionnaire was completed by different professionals who work with children (N = 693) which included SLPs, teachers, psychologists, physicians, nurses, etc. Anyone who didn’t self-identify as an SLP was excluded from this study because those responses will be analyzed based on each individual profession in further studies. Participants for this study consist of Speech-Language Pathologists (SLPs) (n = 305) and Speech-Language Pathology Assistants (SLPAs) (n = 15) who consented and completed the online survey questionnaire. Participants were 18 years and older with a bachelor’s (n = 15), master’s degree or higher (n = 305), and diverse linguistic
background (e.g., Spanish among others). The majority of the participants were in the United States (n = 304) and the rest of participants reported to live outside of the United States (n = 16). Fifty percent of the participants reported to be bilingual and the other 50% reported to be monolingual. In the bilingual group, 149 SLPs reported to have had received bilingualism education either as part of their professional school or as part of continued education (n = 108; n = 41; respectively) and 11 participants reported to had not received formal bilingualism education. On the other hand, 120 monolingual SLPs reported to have had receive bilingualism education as part of their professional schooling or as part of continued education (n = 76, n = 44; respectively); whereas 40 reported to had not received formal bilingualism education.

**Data Analysis**

Qualtrics was utilized to collect the data and it was exported into an Excel spreadsheet. The quantitative data was inputted into SPSS and a binary logistic regression was utilized because the data distributions only have sufficient variability in two of the option responses provided (as seen in Figure 1 & Figure 2) – advantage and neutral (n = 292) hence only the binary categorical dependent variables chosen were analyzed (as discussed in the results). Participants who responded with any of the other options, in either their perceptions for typically developing children or children with disabilities, were not analyzed as part of the quantitative analysis of the perceptions of childhood bilingualism. In this study, a binary logistic regression was used to determine the outcome of positive perceptions (advantage) and neutral perceptions (neutral) while simultaneously incorporating the predictors of language (monolingual versus bilingual) and bilingualism education received (no training versus training). The test was conducted
with responses for both typically developing children and children with disabilities taking into consideration all the predictors mentioned. Additional details pertaining to the statistical analysis of the data are presented in results below.

A total of 173 participants responded the open-ended question (“Is there anything else that you would like to tell us about childhood bilingualism?”). These narrative responses were analyzed for themes and instances of appraisal as they relate to the themes. The thematic analysis included thorough review of the data, as well as the organization and categorization of codes into relevant themes pertaining to this study (Braun & Clarke, 2006).

**Appraisal**

The open-ended responses expressed by SLPs towards childhood bilingualism were analyzed through the appraisal system. The appraisal system recognizes the meaning of words through the sentiment associated to them within the content (Hood, 2004). The appraisal system contains two components – attitude and graduation. In this study, we focused on the attitude component of the appraisal system which focuses on words and phrases that reflect sentiment, feelings, behaviors, judgement, and reactions (Eggins & Slade, 2005). Researchers categorized the appraisal as positively charged words, negatively charged words, or neutrally charged words to analyze the beliefs of SLPs as they relate to the themes observed in the responses.

**Reliability**

According to Creswell and Poth, reliability in qualitative studies focuses on the ‘stability’ of data across multiple coders (2013). Reliability for the qualitative part of the study was obtained through an intercoder analysis (Creswell & Poth, 2013). Data
responses were provided to two separate research team members who proceeded to conduct separate thematic analyses. Researchers generated their own codes as well as instances of appraisal related to the content. Research members then compared codes and appraisal. It was decided that it was more important to have agreement on the content codes therefore an intercoder agreement was established with 80% agreement on the coding of the content. After, the codes were discussed to create broad themes and subthemes with appraisal words weaved into the analysis.

Results

Our primary aim was to determine the perceptions of SLPs on childhood bilingualism for typically developing children and children with disabilities and whether these findings differed based on monolingual versus bilingual status and if bilingualism education was received. Figure 1 shows the number of responses obtained in perceptions of childhood bilingualism for typically developing children – 303 participants stated childhood bilingualism is an advantage, 0 stated disadvantage, 14 stated neutral/mixed thoughts and 2 stated childhood bilingualism causes confusion.

Figure 1.

SLPs Perceptions of Childhood Bilingualism for Typically Developing Children
Similarly, Figure 2 displays responses obtained in perceptions of childhood bilingualism for children with disabilities – 203 participants stated childhood bilingualism is an advantage, 1 stated disadvantage, 93 stated neutral/mixed thoughts and 12 stated childhood bilingualism causes confusion.

**Figure 2.**

*SLPs Perceptions of Childhood Bilingualism for Children with Disabilities*

Based on the number of significant responses a binary logistic regression analysis was performed to ascertain the effects of language status and if bilingualism education was received on the likelihood that participants had positive or neutral perceptions of childhood bilingualism as summarized in Table 1. Of the two predictor variables, both were statistically significant for positive outcomes in children with disabilities, however only one of the predictors was statistically significant for positive outcomes in typically developing children. The logistic regression model did not show statistical significance for bilingual status in the outcomes of typically developing children \((b = -1.194, SE = .303, p = .076)\), however there was a statistical significance for bilingual status in the outcomes of children with disabilities \((b = .652, SE = .27, p = .016)\). The predictor of bilingualism education was statistically significant for advantageous outcomes in both
typically developing children \((b = 1.478, SE = .69, p = .032)\) and children with disability \((b = .928, SE = .349, p = .008)\). That is, bilingual status in SLPs did not have an effect in choosing advantage as outcome for typically developing children, but it did for children with disabilities. Whereas the effect of having received bilingualism education did influence both typically developing children and children with disabilities.

Table 1.

Logistic Regression Results

<table>
<thead>
<tr>
<th></th>
<th>Typically Developing</th>
<th>Children with Disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b)</td>
<td>(OR)</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.634</td>
<td>13.934</td>
</tr>
<tr>
<td>Bilingual</td>
<td>1.194</td>
<td>.303</td>
</tr>
<tr>
<td>Education</td>
<td>1.478</td>
<td>4.384</td>
</tr>
</tbody>
</table>

Note. \(OR = \text{Odds Ratio, calculated as } \exp(b)\), \(SE = \text{Standard Error, Wald = Wald Chi-square test on 1 degree of freedom.}\)

To better interpret these results, Table 2 represents the predicted probabilities of choosing advantageous outcomes in typically developing children and children with disabilities for each combination of values for our binary predictors in efforts to put our findings on a more interpretable metric (Halverson et al., 2021). On average, bilingual SLPs tended to have a higher probability of choosing “advantage” for both typically developing children and children with disabilities than monolingual SLPs. Similarly, SLPs who had received bilingualism education had a higher probability of choosing
“advantage” for both typically developing children and children with disabilities than SLPs who had not received bilingualism education.

Table 2.

Predicted Probabilities

<table>
<thead>
<tr>
<th></th>
<th>Typically Developing</th>
<th></th>
<th>Children with Disabilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Training</td>
<td>Training</td>
<td>No Training</td>
<td>Training</td>
</tr>
<tr>
<td>Monolingual</td>
<td>.93301796</td>
<td>.98388883</td>
<td>.4314347</td>
<td>.65746102</td>
</tr>
<tr>
<td>Bilingual</td>
<td>.80845465</td>
<td>.9487291</td>
<td>.59290799</td>
<td>.78650741</td>
</tr>
</tbody>
</table>

For typically developing children, 94% of bilingual SLPs who had bilingualism education are predicted to say childhood bilingualism is advantageous, whereas approximately 80% bilingual SLPs with no bilingualism education are predicted to have the same perception. In comparison to children with disabilities, 78% of bilingual SLPs who had bilingualism education are predicted to endorse positive outcomes of childhood bilingualism and 59% of bilingual SLPs who had no bilingual training are predicted to have the same perception.

The results revealed that approximately 98% of monolingual SLPs who had bilingualism education are predicted to have a favorable outcome for typically developing children and 65% of this same group are predicted to have a favorable probability for children with disabilities. Similarly, 93% of monolingual SLPs who had not received bilingualism education are predicted to endorse a positive outcome for typically developing children and 43% of those individuals are predicted to endorse this for children with disabilities.
After participants completed the demographics and quantitative questions, they were given the option to answer the open-ended question “Is there anything else that you would like to tell us about childhood bilingualism?” A total of 173 responses were analyzed by conducting a content analysis by identifying instances of appraisal and content themes present in the responses. Of the total responses, 95 responses were obtained from bilingual SLPs and 78 were obtained from monolingual SLPs. Responses not related to childhood bilingualism (n = 28) were excluded from the content analysis.

This analysis included the organization and categorization of recurrent content themes found among the responses of participants. In this study, the major themes found included responses related to perceptions of bilingualism, bilingualism related to others (i.e., doctors, parents, schools, and other unspecified professionals) with the subtheme of perceptions of SLPs, and the need for more education. Additionally, appraisal words were taken into consideration when analyzing the themes since we want to know the sentiment related to each theme. These words were categorized as positively charged words, negatively charged words or neutral. Throughout the responses, the most recurrent positively charged words utilized by the participants included “benefits/beneficial” (n = 20), “advantage” (n = 16), and “support” (n = 18). Negatively charged words included “delay” (n = 20), “confusion” (n = 11) and “slow” (n = 7). Additionally, it is worth noting that monolingual participants tended to have a higher frequency of utilizing negatively charged words throughout all themes observed than bilingual SLPs. And frequency of neutral words included “depends” (n = 3), among others phrases such as “in most cases” (see P69 in Table 3 for reference). These neutral words were included in the study to emphasize the recurrent belief SLPs had regarding bilingualism, where some participants
believe bilingualism may be positive for some but negative for others or they don’t think it’s neither positive nor negative, which was also observed in the quantitative analysis.

The frequency of appraisal words noted above was a broad estimate of appraisal words found throughout the responses of participants within different contexts. For example, some negatively charged words were found in positive contexts (e.g., “I have never seen confusion in a child who is learning two languages. I have found that the languages support each other in their overall language, communication and cognitive development” – P39) and vice versa. That is, although some words have negative meaning (in the example above “confusion”), they are surrounded by a positive context, therefore the words are not counted as a negative charged word.

The thematic analysis gave rise to the major content theme of “perceptions of bilingualism”. Table 3 displays some of the responses obtained in this theme. Responses included answers from both bilingual and monolingual SLPs. As mentioned before, multiple participants expressed believing bilingualism has positive effects. Some participants went into detail as to what they thought were some specific benefits of bilingualism (See P44 & P74). Additionally, since the question was broad it added to the reliability of the test, therefore participants could elaborate on the response that best fit their opinion. P196, P207 & P211 all discussed how bilingualism is beneficial for typically developing children and children with disabilities. Whereas P204 discussed benefits of bilingualism not specific to typically developing children or children with disabilities. Further, negative appraisal was also observed in the major theme of bilingualism. The words “confusion” and “slow” were observed in these responses and participants provided their responses primarily based on their experiences. P234 & P314
answered the question in relation to their encounter with a bilingual person. Whereas P141 responded based on their own experience based on the difficulties experienced with bilingualism. Lastly, neutral responses were observed with the most frequent word used throughout responses being “it depends” (See P96 & P168). These responses contribute to the quantitative analysis since people continue to express mixed views about bilingualism. Additionally, it is worth noting that participants tended to have greater frequency of neutrally charged words towards bilingualism than any other major theme observed.

Table 3.

Theme: Perceptions of Bilingualism

<table>
<thead>
<tr>
<th>Appraisal</th>
<th>n</th>
<th>Participant Quotes</th>
</tr>
</thead>
</table>
| Positive  | 64 | Both typically developing children and children with disabilities benefit from bilingualism. Not only does being bilingual create different neural networks in the brain, it also has social-emotional benefits, with children being able to communicate with their family and community members. [P44]  
There are cognitive and social benefits that will also lead to monetary benefits in adulthood. There are no damaging effects whether the child is typically developing or has a disability. [P74]  
I fully support bilingualism for typically and non-typically developing children. I believe bilingualism gives children access to a larger vocabulary as well as |
cultural and social connections with more communication partners. Bilingualism also has long term cognitive benefits and is a valuable skill to develop for the workplace. [P148]

It is good to be bilingual, regardless of disability status. [P196]

It is important for children to have continued exposure to 2 or more languages to maintain a connection to their culture and families. It would be unfair to limit a child to just English. [P204]

Being bilingual is an advantage. If a child lives in a bilingual environment, they need both languages whether they have a disability or not. [P207]

I whole heartedly believe that bilingualism can only be a positive for typical developing children as well as children with developmental delay/disorders. [P211]

<table>
<thead>
<tr>
<th>Negative</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>It can contribute to wordfinding issues (it’s very frustrating for me because sometimes I can only think of a word in a language other than the one I’m attempting to speak) as well as pragmatic language issues (you are not sure who understands which language or why). [P141]</td>
<td></td>
</tr>
</tbody>
</table>

For students in the primary grades with severe language delay who are in a dual language Spanish-
English program with no Spanish being spoken in the home, language skills in the second language appear to be very slow to emerge and English skills appear to be negatively impacted, at least for the first few years. [P163]

I have seen that in children with a language disorder, it can cause confusion when a different language is spoken at home from the language spoken at school. [P234]

For special needs patients it can hinder them if the child is nonverbal or uses an AAC device. No research in this area can confirm or dispute that. [P296]

I have seen young typically children acquire language slower in bilingual households many times over the years as a practicing SLP [P314]

Neutral 19 I believe that, in most cases, knowing multiple languages is very positive. [P69]

It depends on the disability [P96]

Overall, I think it is positive for both typically developing children as well as children with special needs. However, sometimes it can cause them to appear more delayed and may also put them at a disadvantage if their educational instruction and therapies are all in English. [P156]

The question about “children with disabilities” is overly broad. I
think that some children with disabilities can benefit, for others it can be problematic. It depends on the type of disability. There is a huge difference between a child with spastic quadriplegia and average intelligence and one with a moderate intellectual disability. [P168]

It’s important to examine each child individually. Some children definitely benefit from being bilingual and some don’t. Learning 2 language maybe overwhelming for a child already struggling with simple structures. [P193]

Children with language delay recover and can become bilingual/multilingual. Children with motor speech delays (apraxia) or severe-moderate autism may have greater consequences when learning two languages as they do not have the motor or cognitive ability to be sufficient in both languages. [P270]

Another major theme found in the analysis was related to responses mentioning bilingualism related to others (i.e., doctors, schools, parents, and other unspecified professionals), as well as the rise of the subtheme of perceptions of SLPs. Of the responses obtained, 45 were categorized in this theme. Responses included the mention of projections of SLPs’ thoughts onto parents or other professionals as to what they have been doing or should be doing. For example, P300 stated their experience with families being advised to adopt a monolingual approach, as well as stating their opinion on what
families and should be doing when it comes to bilingualism (“In my professional practice, I find that many families try to speak English only with their children in order to support their English Language Development. However, they don’t speak English fluently themselves. At my school, we encourage parents to speak to their children in the language they are most comfortable with and also try to share the benefits of bilingualism for all children”).

Similarly, Table 4 included responses that either contained positive (n = 16) or negative (n = 8) appraisal words, in addition to how bilingualism is related to professionals such as doctors, educators, and other professionals who work with children (see P154 & P182). Also, responses included recommendations for parents and how issues revolving around bilingualism affect families and culture. For example, P301 emphasized the importance of maintaining a home language since the family will be the child’s primary community (for further examples see Table 4). Additional emphasis was placed on the importance of embracing the home language and culture, and the call for professionals to dismiss advising parents who are not proficient in the L2 to speak to their children in it (e.g., P28, P154, and P182).

Table 4.

<table>
<thead>
<tr>
<th>Appraisal</th>
<th>n</th>
<th>Participant Quotes</th>
<th>Subtheme: Perceptions of SLPs (n = 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>16</td>
<td>Always encourage parents to speak their native language to their children rather</td>
<td></td>
</tr>
</tbody>
</table>
than trying to speak English (if living in US). Parents often feel they have to speak English to their child at risk of confusing them, especially if disorder/delay present. [P21]

Parents should be encouraged to communicate in whatever language they feel most comfortable, with their children. [P28]

I firmly believe that no family should stop using their home language with their child. It limits communication between parent and child, negatively impacts their ability to honor their culture through their language and leads to parent offering a poor language model to their child if they are trying to communicate in English only with their child. [P49]

I think that culturally in the United States, we need to do more to support bilingual development instead of demanding
everyone speak only English. [P53]

I encourage bilingual, even trilingual, to continue to foster language development. I also work to inform allied medical professionals that bilingualism does not impair or hinder language development. Increase public information and education regarding such is warranted and encouraged, particularly with those making referrals to early intervention. [P226]

I think we need to embrace all home languages especially in children who have disabilities because their family often is their primary community for their entire lives. They need to be able to communicate with one another. [P301]

| Negative | 8 | The number of professionals in all fields who continue to believe outdated and incorrect information about I think there are many speech pathologists, who are considered experts at |
bilingualism is disheartening, especially when that information is passed on to families. [P90]

speech and language, who continue to tout that learning a second language concurrently with a first language negatively impacts language development, when there is much evidence that shows the opposite. I have encountered many unsure parents and parents that have stopped speaking their home language to their children. I think it's dangerous that these SLPs continue to spread misinformation. [P70]

In my field of work, many families often report in evaluations that they believe the cause of their child's language disorder is due to their bilingualism and attempt to eliminate a language, making communication with all family members

There needs to be more education on this topic so that people would stop spreading misinformation. Some SLPs still think it’s ok to tell families that speaking
even more difficult [P109] Spanish will harm their child in the long run. [P105]

I sometimes encounter other professionals, teachers, or parents who have this idea of needing to expose a child with disabilities to one language to "avoid confusion." It's concerning when others inadvertently reinforce this idea because this thinking results in kids not getting the benefit of solid L1 models at home, and loss of opportunities to engage with their own heritage language and culture. [P154]

I think there is a lot of misinformation about bilingualism being perpetuated by other SLPs, such as the idea that families should "drop" their home language if a child is speech delayed or needs ELL services, which goes against what the evidence has shown. [P319]

Too many professionals telling people to pick a language. huge issues when parents try to teach a language they aren't fluent in and not speak their best languages at home [P182]

I receive many anxious questions from parents about bilingualism; many assume it may slow or negatively impact
Within the “bilingualism related to others” theme, the subtheme of “perceptions of SLPs” emerged. It is worth mentioning all responses in this subtheme included negative appraisal words towards SLPs. Most responses included the lack of education and misinformation perpetuated by SLPs towards parents (e.g., P105). It should be of note that responses can overlap themes and examples like the previously mentioned can be categorized into different themes. Additional examples as seen in Table 4 also mentioned the need for further education needed and the advice being provided to parents. Within the theme of “bilingualism related to others” and subtheme of “perceptions of SLPs”, it appears that the responses are projections of previous experiences that have let to these opinions and the negative appraisal associated to it.

The last theme present displayed the “need for more education”. SLPs responses for this theme (n = 14) revolved around the lack of education provided to SLPs regarding childhood bilingualism and the treatment of culturally and linguistically diverse populations. For example, P105 stated the need for more education in order avoid the advising of a monolingual approach in bilingual/multilingual families. Additionally, as seen in Table 5, P122, P138, P200, and P289 mentioned the need for further education at the graduate level to address this issue. Similarly, P214 calls for better education of professionals as well as the education of parents to reassure them about the use of the home language and to better educate them about bilingualism.
Table 5.

**Theme: Need for More Education**

<table>
<thead>
<tr>
<th>Appraisal</th>
<th>n</th>
<th>Participant Quotes</th>
</tr>
</thead>
</table>
| Negative  | 14 | This is a topic of great confusion for EI providers, educators, SLPs, and doctors [P33]  
There needs to be more education on this topic so that people would stop spreading misinformation. Some SLPs still think it’s ok to tell families that speaking Spanish will harm their child in the long run. [P105]  
Bilingualism was not talked about in Graduate school despite being in a Speech-Language Pathology program at the Master’s degree level, this lead to many white monolingual therapists treating articulation differences in bilingual children. [P122]  
Ongoing information and research is always helpful! [P138]  
I feel more curriculum's need to address this more! [P200]  
Many parents/professionals believe that teaching a child with a disability a second language is going to confuse them/inhibit them from making progress with their expressive and receptive language skills. I believe there needs to be more education to parents/professionals regarding this topic and research to support the idea that it is okay for a child to be exposed to their primary language as well as another language. [P214] |
They should talk more about it in SLP grad school! [P289]

I think bilingualism is undervalued and I wish more children grew up in bilingual homes, as it promotes numerous communication opportunities. The current literature recognizes many benefits of children growing up in bilingual homes and has not found any causes of concerns for children who are bilingual. However, I think there is a lack of education about this topic to the general public which leads to many misconceptions. [P294]

Additionally, it is worth considering the patterns observed between the quantitative and qualitative responses. In relation to the theme of “perceptions of bilingualism”, most of the participants who had positive appraisal in this theme thought bilingualism was advantageous for both typically developing children and children with disabilities. Whereas responses that included negative appraisal displayed quantitative responses that varied between mostly neutral and confusion for both typically developing children and children with disabilities. Most participants who had neutral appraisal towards perceptions of bilingualism thought childhood bilingualism was advantageous for typically developing children, however when it came to their perception of childhood bilingualism for children with disability, the majority of the participants had neutral perceptions.

The previously discussed theme of “perceptions of bilingualism” is the only theme with various appraisal words included in comparison to the other emergent themes. Throughout the other themes present in this study, most participants had positive
perceptions of childhood bilingualism for both populations. Overall, it was observed that participants had more mixed perceptions of childhood bilingualism for children with disabilities that included more responses related to neutral and negative appraisal. Similarly, it was observed monolingual SLPs had greater instances of having neutral perceptions that translated to negative appraisal in the qualitative responses.

**Discussion**

This study adopted a mixed methods design in the collection and analysis of data obtained from a survey questionnaire. The quantitative data revealed responses for perceptions of childhood bilingualism for typically developing children and children with disabilities. Quantitative variables taken into consideration included the perceptions – advantage and neutral based on the number of significant responses obtained, language status (monolingual versus bilingual) and bilingualism education received (training versus no training). The qualitative data revealed content themes throughout the data which included the major themes: bilingualism, others, and need for more education, as well as the subtheme – SLPs, while taking into consideration how participants appraised these themes.

Findings revealed that there was no significant difference in language status in SLPs perception of childhood bilingualism for typically developing children. That is, being bilingual did not result in participants thinking childhood bilingualism is an advantage. However, these results displayed it was nearing significance, therefore it poses the thought, whether there would be significance with a larger sample. On the other hand, language status was significant in the perceptions of childhood bilingualism for children with disabilities; where monolingual SLPs were most likely to have a higher
probability of having mixed thoughts about bilingualism rather than thinking it was an advantage. These results correlate with the qualitative results since the emerging themes revealed that monolingual SLPs had a higher frequency of using neutrally charged words towards bilingualism than bilingual. For example, P168 stated:

“The question about "children with disabilities" is overly broad. I think that some children with disabilities can benefit, for others it can be problematic. It depends on the type of disability. There is a huge difference between a child with spastic quadriplegia and average intelligence and one with a moderate intellectual disability.”

Similarly, P193 expressed:

“It's important to examine each child individually. Some children definitely benefit from being bilingual and some don't. Learning 2 language maybe overwhelming for a child already struggling with simple structures.”

Regarding the second predictor, findings revealed that there was significance in the probability of SLPs perceiving childhood bilingualism as advantageous if they had received bilingualism education at some point in their career. That is, SLPs (monolingual and bilingual) who had received bilingual training were more likely to have positive perceptions of childhood bilingualism for both typically developing children and children with disability. These findings tie in with the major theme of “need for more education” present across both monolingual and bilingual SLPs. The main focus of the theme being the call for further education in bilingualism for SLPs who work with culturally-linguistically diverse populations. P105 who reported to be a bilingual SLP stated:
“There needs to be more education on this topic so that people would stop spreading misinformation. Some SLPs still think it’s ok to tell families that speaking Spanish will harm their child in the long run.”

Monolingual SLPs also emphasized the need to further address education needs to advocate for bilingualism education. P214 reported:

“Many parents/professionals believe that teaching a child with a disability a second language is going to confuse them/inhibit them from making progress with their expressive and receptive language skills. I believe there needs to be more education to parents/professionals regarding this topic and research to support the idea that it is okay for a child to be exposed to their primary language as well as another language.”

Additionally, both groups of participants explicitly indicated the need for further education during professional schooling at the higher education level to reduce the frequency of misinformation provided to families. P200 & P289 stated, respectively:

“I feel more curriculum's need to address this more!”

“They should talk more about it in SLP grad school!”

Lastly, the quantitative data did not include questions regarding other professionals or cultural associations related to bilingualism, nonetheless, responses related to “others” emerged as a theme. This included responses such as the importance of maintaining a home language for familial communications, such as P301:

“I think we need to embrace all home languages especially in children who have disabilities because their family often is their primary community for their entire lives. They need to be able to communicate with one another”
Additional responses included the call for better promotion of bilingualism in the country. P53 shared:

“I think that culturally in the United States, we need to do more to support bilingual development instead of demanding everyone speak only English.”

Similarly, other participants expressed the detriment towards advising a monolingual approach, such as poor language models, poor communication, and poor cultural connection. P154 expressed:

“I sometimes encounter other professionals, teachers, or parents who have this idea of needing to expose a child with disabilities to one language to "avoid confusion." It's concerning when others inadvertently reinforce this idea because this thinking results in kids not getting the benefit of solid L1 models at home, and loss of opportunities to engage with their own heritage language and culture.”

Comparably, participants had recurrent responses in relation to SLPs which gave rise to the subtheme “SLPs” whose all responses included negative appraisal towards SLPs. Findings in this subtheme revealed the thoughts multiple SLPs had towards colleagues within their field. In this subtheme, there are many overlapping themes observed such as a call for better education of SLPs and the misinformation being shared to parents regarding bilingualism. P70 stated:

“I think there are many speech pathologists, who are considered experts at speech and language, who continue to tout that learning a second language concurrently with a first language negatively impacts language development, when there is much evidence that shows the opposite. I have encountered many unsure parents and parents
that have stopped speaking their home language to their children. I think it's dangerous that these SLPs continue to spread misinformation.”

Conclusion

The purpose of this study was to learn more about SLPs’ perceptions of childhood bilingualism. The study was conducted utilizing a survey questionnaire that captured demographic information that included language status and bilingualism education received. In doing so, we were able to conduct a quantitative analysis to further evaluate SLPs perceptions towards typically developing children and children with disabilities while incorporating the predictors obtained from the demographic information. The results from this study showed that language status did not play a role in the positive perceptions of SLPs towards typically developing children, but it was an important factor in deciding favorable outcomes for children with disabilities. Similarly, findings showed that bilingualism education contributed towards advantageous perceptions of childhood bilingualism in both typically developing children and children with disabilities.

In addition, the qualitative results revealed a look at the natural perceptions obtained from the participants which gave rise to the themes “perceptions of bilingualism”, “bilingualism related to others (i.e., doctors, schools, parents, and other unspecified professionals)” and “need for more education” which included the subtheme “perceptions of SLPs”. These findings support the quantitative results posing clear points being made by SLPs. Higher frequency of participants (both monolingual and bilingual) revealed positive perceptions of bilingualism in both quantitative and qualitative analyses, stating that childhood bilingualism is an advantage for typically developing children and children with disabilities. On the other hand, it was revealed that
monolingual SLPs had more mixed/neutral perceptions of childhood bilingualism for children with disabilities. And that the need for more bilingualism education was a recurrent thought among many SLPs.

**Clinical Implications**

This study revealed information needed in the field which may serve to further educate SLPs and other professionals on childhood bilingualism. As well as a call for bilingual and cultural-linguistic education to be implemented across graduate programs to ensure optimal services being provided to the diverse groups in our case loads. Also, it serves to understand the thoughts of different SLPs in relation to the education they are providing to parents and the services they are providing to different populations – whether it be typically developing children or children with disabilities.

**Limitations**

The conclusions for this study have some limitations. One of the limitations includes the format of the questions in the survey questionnaire which may have not been explicit enough to cater to the perceptions of participants. Additional questions should have been included to further analyze the perceptions and preparedness of SLPs to provide services to bilingual and multilingual populations. As second limitation is that positive perceptions may not corelate with language practices. That is, participants who thought bilingualism is advantageous may not be promoting bilingualism. Future research should consider these limitations to obtain more specific information related to this topic and population.
Future Research

The data obtained from this study and the literature reviewed demonstrates that there is a need for more education as well as research in the field of bilingualism. It allows future research to explore the perceptions of other professionals to better understand what areas need to be addressed to provide competent education in bilingualism. Additionally, future research should consider comparing the perceptions of SLPs on childhood bilingualism and the practice of SLPs in serving bilingual children to better understand day to day practice in the field.
References


Appendix. Survey Questionnaire

Are you a professional practicing within the United States?

[ ] Yes

[ ] No

What country do you live in? ____________________________________________

What city do you live in? _______________________________________________

What is your highest level of education?

[ ] Highschool graduate/GED

[ ] Technical degrees / Vocational training

[ ] Associate’s Degree

[ ] Bachelor's Degree

[ ] Master's Degree

[ ] Doctoral or Professional Degree

What is your occupation?

[ ] Psychologist

[ ] School Psychologist

[ ] Speech-Language Pathologist/Speech-Language Pathology Assistant

[ ] Social Worker

[ ] Early Childhood Educator

[ ] Day Care Worker

[ ] Regular Education Teacher

[ ] Special Education Teacher

[ ] Physician (please enter your specialty in the text box _____________________)
[ ] Audiologist

[ ] Nurse Practitioner  (please enter your speciality in the text box) __________________

[ ] Nurse (please enter your specialty in the text box) _____________________________

[ ] Other (please specify in the text box) _______________________________________

Have you ever received any education in bilingualism?

[ ] Yes

[ ] No

Where did you receive your education in bilingualism?

[ ] As part of my professional schooling

[ ] As part of my continuing education

Do you speak English fluently?

[ ] Yes

[ ] No

Do you speak (an)other language(s) fluently?

[ ] Yes

[ ] No

Please list the language(s) that you speak fluently? _______________________________

What is your perception of bilingualism for children who are developing typically?

[ ] I have never thought about it

[ ] I think there are advantages to bilingualism for children who are developing typically

[ ] I think bilingualism can cause language confusion for children who are developing typically
[ ] I think bilingualism has neither positive nor negative consequences for children who are developing typically

[ ] Other

What is your perception of bilingualism for children with disabilities?

[ ] I have never thought about it

[ ] I think there are advantages to bilingualism for children with disabilities

[ ] I think bilingualism can cause language confusion for children with disabilities

[ ] I think bilingualism has neither positive nor negative consequences for children with disabilities

[ ] I think bilingualism has mixed consequences for children with disabilities

[ ] Other (please specify your perception of bilingualism for children with disabilities in the text box) _____________________________________________________________

Is there anything else that you would like to tell us about childhood bilingualism?

________________________________________________________________________