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COMMUNICATION SCIENCES AND DISORDERS (CSD) GRADUATE
STUDENTS' PREPAREDNESS TO WORK WITH INDIVIDUALS WHO ARE
BILINGUAL

by
Elizabeth Marie Harbaugh

A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of
the requirements of the Sally McDonnell Barksdale Honors College.

Oxford
May 2015

Approved by

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ABSTRACT

ELIZABETH HARBAUGH: CSD Graduate Students' Competence to Work with
Individuals Who Are Bilingual

(Under the direction of Dr. Carolyn W. Higdon)

This study addresses the overall competence of Communication Sciences and Disorders (CSD) graduate students working with individuals who are bilingual. It examined the different CSD graduate programs in the United States and identified key variables that lead to students' preparedness. The author surveyed 238 individuals, consisting of first and second year graduate students and individuals working in their clinical fellowship from 30 different graduate programs. The data were collected from both Mississippi and the total population and were compared as an example of possible future research pertaining to SLP preparedness needed when working with individuals who are bilingual. The results suggested a lack of competency among CSD graduate students when working with populations who are bilingual. The majority of participants had a minimal amount of classroom hours devoted to multicultural/multilingual issues. Many also reported not completing clinical practicum with individuals who are bilingual. Finally, the study suggests methods for advancements among the CSD graduate programs across the United States.

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Chapter I

Introduction

The author of this research was born into a bilingual environment—born and raised in Chile, South America by an English-speaking American family. Her language skills were fairly balanced in both English and Spanish. Although English was the dominant language primarily spoken by her family and studied within the home, the family had a Spanish-speaking maid who spent much time taking care of her during her infancy. The author also spoke, read, and wrote in Spanish at church and with her friends. She visited the United States at the age of eight, and after a year of speaking and listening to only English, she returned to Chile no longer able to properly communicate with her Spanish-speaking friends. The author could understand everything that was spoken, yet was extremely challenged when verbalizing in Spanish what she was thinking in English. It took her several weeks to readapt to speaking Spanish again. Although she finds this experience perplexing, it goes on to reaffirm the complexity of language and the struggles that individuals who are bilingual may face when adapting to various contexts.

On other occasions, while visiting Uruguay and Argentina at a young age, the author began to realize the linguistic and cultural differences of Chile's neighboring countries. Argentines and Uruguayans have a different Spanish from that of Chileans and linguistically pronounce words differently and commonly speak in louder tones. Their

attitudes are sometimes mistaken as arrogant because they are boisterous and not hesitant to give their opinion in public; while in Chile, people are much more conservative when sharing their opinions. On a trip to Mexico, knowing that Spanish is the spoken language there, she was surprised to find that the culture in Mexico is also very different from what she had previously experienced in other Latin American countries. Some of those differences are in the types of food eaten, the traditional music and dance, and the dialect spoken, which included some distinct vocabulary, as well as different patterns of intonation.

Growing up in Chile, the author was accustomed to different habits of interaction. A friend or acquaintance would greet with a kiss to the right cheek, as well as, frequently giving a hug; physical affection was very prominent. While visiting the USA at the age of eight, she remembers greeting old acquaintances and even relatives with merely handshakes, which she thought to be rude, when instead, it was simply a cultural difference. When she was 13 and moved back to the United States permanently, it was extremely difficult to transition into the culture, even though she fluently spoke and understood the English language. She missed her Chilean friends, conversing in Spanish, and most importantly, the unique Chilean culture of close personal interaction with others. This made her feel very out of place.

One can imagine the culture shock that a child who is bilingual may face coming from a "nontraditional American" culture, in addition to having a possible speech or language impairment—the difficulties, both social and emotional, would be multiplied. If a speech-language pathologist does not understand the child's cultural differences and is not empathetic, then the child who is bilingual will not be properly

assessed and treated. Traveling and meeting people from different cultures has taught the author that she was very different from the “typical American,” and has learned that even among cultures that share the same language, many differences exist, thus influencing the way a child will learn language and learn to speak. It is fascinating to realize how each child who is bilingual is unique. The diversity of children who are bilingual with different backgrounds, stories, and cultures has sparked the author’s interest in becoming a bilingual speech-language pathologist.

Currently, there is a high demand for more bilingual speech-language pathologists (BSLPs) in the United States due to the increased number of culturally and linguistically diverse children enrolled in the school system. In the United States, there are children who are bilingual that struggle with different language impairments and delays and need proper cultural and linguistic incorporated therapy in order to efficiently address their needs. For the purpose of clarification, various terms used throughout this study will be defined and explained in the following paragraph before introducing relevant statistics.

The American Speech-Language Hearing Association (ASHA), the national professional, scientific, and credentialing association for speech-language pathologists and audiologists defines a culturally and linguistically diverse (CLD) client as any person who may have any cultural variable differing from the clinician; this includes clients from another race, ethnicity, religion, socioeconomic status, experience, etc (ASHA, 2014). An individual who is bilingual is one who can speak and understand two different languages, whether it has been learned early in childhood or later in life. Simultaneous bilingualism is when an individual is exposed to both languages during childhood, usually prior to the age of three (ASHA, 2014). Sequential bilingualism, on the other

hand, is when an individual is exposed to his second language after the age of three (ASHA, 2014). A dual language learner (DLL) may refer to an individual who is learning two languages simultaneously or one who began learning his second language sequentially (ASHA, 2014). English language learners (ELLs), also known as limited English proficient (LEP) students, are language minority students in the United States who are learning the majority language, English, usually for educational reasons (ASHA, 2014). The amount and the context of language exposure each child receives determines his/her ability to speak and understand the specific language. It is common for a sequential bilingual person to be silent in his second language during his second language acquisition process. As children who are bilingual are exposed to two different languages, they do not receive as much language input in one individual language, as do monolingual children.

The total language exposure among bilingual children is lower in each individual language, therefore comparison between a bilingual and monolingual child is faulty. Every child who is bilingual has a unique language environment, and rarely will the child receive equal input of each language. Thus, a child who is bilingual will have a first/native language (L1) and a second/minority language (L2); the individual variation among children is largely due to the heterogeneity of environments to which the children are exposed. Although it is optimum for the child's language environment to be balanced, it is many times difficult or unrealistic to achieve this equalization (Bedore & Peña, 2008; MacLeod, Fabiano-Smith, Boegner-Pagé, & Fontolliet, 2012). In the United States, about 69% of children who are bilingual are in English-only classrooms at school beginning from kindergarten and are receiving more language input in their second

language; thus, their second language becomes more complex and their first language less complex, resulting in a hindrance of their native language (Bedore & Pena, 2008). If a child, whose native language is Spanish, spends most of his day in an English-only classroom, then ideally it is better for both parents to speak Spanish in the home, as opposed to adopting a “one-parent-one-language” approach where one parent speaks only English and the other speaks only Spanish.

Due to the many complexities involved with bilingualism, misdiagnosis may occur, therefore, clinicians must be prepared to address the unique situation of each client (ASHA, 2014). Sequential bilingual children are more likely to be misdiagnosed as having language impairment, which is “the inability to learn language as manifested by deficits in expressive and or receptive language skills relative to age-matched peers who have comparable language exposure” (Bedore & Peña, 2008). Misdiagnosis can occur when the language skills of the child who is bilingual are compared to his monolingual peer’s language skills. Language impairment can also be referred to as primary language impairment (PLI), late talkers, specific language impairment (SLI), and language-based learning disabilities. These different names emphasize visible changes in the most obvious characteristics of the bilingual population among different ages. Although language impairment has no inherent cause, Kohnert (2010) writes, “PLI is a high incidence developmental disorder presumed to be due to innate factors interacting with language-learning demands. Children with PLI experience difficulty in language and, consequently, are at risk for reduced academic, economic, and social outcomes” (p. 460). Children who are bilingual who may have primary language impairment will need to be assessed by speech-language pathologists who know the differences between typically

developing children learning two languages and primary language impairment among children learning two different languages.

In the United States, the number of children who are bilingual is increasing. According to the 2000 U.S. Census Bureau report, one in five school-age children will speak English as a second language and by 2030, more than 40% of the entire school population will be English language learners (Rowden-Racette, 2009). The Hispanic community in the United States has grown by 43% in the last decade, and it is estimated that by 2050, people who are identified as Hispanic could make up one third of the United States' population (Ceasar, 2011). The increasing population means that many children will require services from not only English Language Learner (ELL) teachers, but also speech-language pathologists who will be evaluating and assessing children who are bilingual to determine if they have speech language impairments. Currently, there are an estimated 4.6 million students who are English language learners in K-12 schools (Watkins & Liu, 2013). A survey conducted by the U.S. Department of Education's Office of English Language Acquisition, Language Enhancement, and Academic Achievement for Limited English Proficient Students found that since the 1990–1991 school year, the limited English proficient (LEP) population has grown approximately 105%, whereas the general school population has grown only 12% (Kindler, 2002). Different states have had varying growth patterns and during the 1999–2000 school year, Mississippi increased the number of LEP enrolled students by 79%. Mississippi has more than doubled its population of Spanish-speaking individuals in the last decade, and data shows that it continues to grow (Ceasar, 2011). With the increase of individuals classified as ELL and Hispanic throughout the community and within the schools, SLPs'

caseloads with children who are bilingual have also increased (Girolametto & Cleave, 2010). In the United States there are 150,241 American Speech-Language Hearing Association (ASHA) members, 7,039 (5%) of whom are bilingual service providers, an increase from 2,548 in 2002 (ASHA, 2012). In Mississippi, there are only seven ASHA speech-language pathologists who have self-identified themselves to the national association as being bilingual SLPs (ASHA, 2012). Therefore, one would assume that the majority of SLPs who assess and offer speech and language services for individuals who are bilingual are monolingual.

Due to the increasingly diverse public school population, ASHA has repeatedly called for greater numbers of bilingual SLPs to serve the public school population (ASHA, 1985, 1988, 1992, 2001). Although presumably SLPs who are bilingual would be best equipped to work with clients who are bilingual, they are not the only ones who can work with individuals in the bilingual community. In order to address the culturally and linguistically diverse population, all SLPs, bilingual and monolingual, must be culturally competent. This means “sensitivity to cultural and linguistic differences that affect the identification, assessment, treatment and management of communication disorders/differences in persons” (ASHA, 2004, p. 152). It “requires the ability to integrate a deep and broad understanding of the theories and methods of our discipline with a clear understanding and appreciation of the values, perspectives, and world-views that guide one’s own behavior and that of others” (Kohnert, Kennedy, Glaze, & Kan, 2003, p. 266). Kritikos (2003) states that “...improvement in services to multilingual/multicultural groups will depend on understanding the complex relations among language learning, sociocultural experiences, and SLPs’ beliefs about language

assessment of clients” (p. 74). ASHA first encouraged educational programs to integrate multicultural/multilingual issues (MMI) into the education of speech-language pathologists and audiologists in 1985 (Thordardottir, 2010). This was an optional step for programs until 1994, now it is a requirement (Thordardottir, 2010).

To better understand the relevance of multicultural/multilingual issues (MMI) in the Communication and Science Disorders (CSD) graduate training programs, over 10 years ago, Stockman, Boulton, and Robinson (2003) created a nationwide survey asking faculty members about their methods and attitudes concerning the infusion of multicultural/multilingual issues within the CSD curriculum. Infusion means embedding MMI in one or more existing courses within the curriculum (ASHA, 2015). Results from the survey displayed a large gap between the theoretical aspect of the importance of teaching MMI and putting into practice such issues. Due to faculty not having any ASHA guidelines in 2003 related to teaching MMI, the methods used and time devoted toward teaching such issues varied widely.

Acknowledging that MMI is a relatively new concept offered in graduate programs, the ASHA website has now created a resource for faculty, offering suggestions and sample syllabi of what foundational multicultural/multilingual courses should look like, as well as ways in which faculty can infuse the material into their already established core classes (for more information, see Appendix E). Researching different CSD graduate programs across the United States that offered MMI, as well as interviewing faculty to better understand the materials listed on syllabi, ASHA found that all the course syllabi tended to focus on either theory or application. The syllabi that focused on theory addressed general principles of language and social structure and how

they varied across cultural groups, whereas, the syllabi that focused on application tended to address differences specifically related to disorders and clinical methods. Although a variety of racial and ethnic groups were addressed in the syllabi, the groups that were most frequently addressed were Bicultural/Bilingual, Hispanic, Black, and Asian.

Multicultural infusion embeds the multicultural content into one or more existing courses within the curriculum. The ASHA website (2014) states, “The courses targeted for infusion of multicultural content typically focus on typical and atypical speech, language and hearing characteristics that are relevant to clinical assessment and intervention services.” Multicultural content can also be embedded into the curriculum within a specific foundational course dedicated to MMI. Such a course focuses on concepts that are applicable across all topics covered in the graduate program’s curriculum, including “cultural differences that affect services to specific groups and the etiologies of specific speech, language and hearing disorders that differentially impact specific populations” (ASHA, 2014). In agreement with the authors’ suggestions after analyzing their own 2003 survey results, ASHA (2014) reads: “Ideally a curriculum should include both approaches to multicultural content.” Both approaches would entail providing a foundational MMI course, in addition to the embedment of MMI into the pre-existing graduate program’s courses. In their research, Roseberry-McKibbin, Brice, & O’Hanlon (2005) found that when students, bilingual and monolingual, take a course that specifically focuses on multicultural/multilingual issues, their competence and level of confidence to work with a client who is bilingual is higher than that of students who receive only infused multicultural/multilingual information from their courses.

As the author of this study began researching topics related to SLPs working with children who are bilingual, she realized the increased demand for MMI to be taught to the future SLPs who will play a large role in the lives of the rapidly growing Hispanic community. She chose to write about the training and courses related to MMI that are available to Communication Science and Disorders (CSD) graduate students and to investigate areas that may need improvement. During the author's undergraduate program at the University of Mississippi she discovered that there was no course offered in the undergraduate or graduate CSD program that focused specifically on MMI. It concerns this author that many undergraduate and graduate students, upon graduation, may not be adequately prepared to reach the Hispanic community in the United States. The survey results from Stockman et al.'s 2003 survey showed that many southern states did not offer courses focused specifically on MMI, and as a result, the SLPs had a lower confidence level when working with children who are bilingual (Stockman et al., 2004). Subsequent to Stockman et al.'s survey in 2003, additional textbooks, journal articles, assessment tools and methods, implementation of multicultural/multilingual issues in graduate programs, and information regarding bilingualism have become readily available. Therefore, the author of this study plans to research the current state of cultural competence among graduate students and those working in their clinical fellowship. Surveying first and second year CSD graduate students and those who are currently working in their clinical fellowship in all four regions (Northeast, Midwest, South and West) of the United States will help evaluate and determine a student's self-evaluated level of preparedness and competence to work with individuals who are bilingual.

Chapter II

Literature Review

The Hispanic community in the United States has grown by 43% in the last decade, and it is estimated that by 2050, Hispanics could make up one third of the United States' population (Ceasar, 2011). Mississippi has more than doubled its Hispanic population in the last decade, and it continues to grow (Ceasar, 2011). The increased population has resulted in an increase of caseloads of children who are bilingual among SLPs (Girolametto & Cleave, 2010). In the United States, there are 150,241 individuals represented by the American Speech-Language Hearing Association (ASHA), 5% of whom are bilingual service providers (ASHA, 2012). In Mississippi, for example, there are seven bilingual ASHA speech-language pathologists (ASHA, 2012). This means that the majority of SLPs who assess and offer speech and language services for individuals who are bilingual are monolingual. It is critical for SLPs to know ASHA's guidelines and to be familiar with the available resources for effective assessment and treatment in an individual who is bilingual.

When assessing a child who is bilingual, Kohnert (2010) explains three aspects that the SLP should determine: (1) whether the child's language is lower than the range of typically developing peers, (2) the specific language disorder and the cause of the identified language disorder, and (3) the best method of clinical action to then increase the child's long-term language, learning, and social outcomes. The majority of the literature focuses on children who are bilingual with "language impairment"

(Thordardottir, 2010), also known as “primary language impairment” (Kohnert, 2010), and “specific language impairment” (Cleave, Girolametto, Chen, & Johnson, 2010; Gillam, Peña, Bedore, Bohman, & Mendez-Perez, 2013). This impairment is a language learning problem without significant cognitive and neurological delays or compromised social skills (Girolametto & Cleave, 2010). Kohnert (2010) found that the most basic assessment goal related to bilingualism has been the identification of language impairment, i.e. determining whether the client who is bilingual has primary language impairment or not.

Methods of Assessment

Standardized measures of assessment that are commonly used with monolingual children with speech and language disorders are highly discouraged as the method of assessment for children who are bilingual (ASHA, 2014, Cleave et al., 2010; Girolametto & Cleave, 2010; Hambly, Wren, McLeod, & Roulstone, 2013; Kohnert, 2010; Laing & Kamhi, 2003; Saenz & Huer, 2003; De Lamo White & Jin, 2011). Kohnert (2010) explains that although standardized norm-referenced language tests are used to determine if monolingual children have PLI, the same or similar test cannot be used on children who are bilingual due to the heterogeneity in their language development. In their systematic review, after analyzing hundreds of literature articles from the past 50 years, Hambly et al. (2013) found a visible difference in the quality of speech acquisition between children who are bilingual and monolingual. Children who develop speech sounds in a bilingual environment present different phonological error patterns in comparison to their monolingual peers. Therefore, individuals who are bilingual cannot be assessed in the same manner as monolinguals (Hambly et al., 2013). At present, there

are no standardized tests that can measure primary language impairment in children who are bilingual, as there are for monolingual children (Kohnert, 2010; De Lamo White & Jin, 2011). Saenz and Huer (2003) found that children who are bilingual, even those who had high proficiency in English, scored significantly lower than their monolingual peers on English standardized tests, once again, reinforcing that proper assessment of a child who is bilingual cannot be properly done with a test used on children who are monolingual.

In response to the problem of over and under-diagnosis of language disorders among multicultural and multilingual children, Laing and Kamhi (2003) offer a few assessment alternatives they found to be more effective than the standardized measures used on monolingual children. They include language sampling, ethnographic interviewing techniques, processing-dependent measures that emphasize processing abilities as opposed to prior language knowledge and experience, and the use of dynamic assessment, the test-teach-retest method, and task/stimulus variability, which provides a naturalistic environment when assessing the children. Laing and Kamhi (2003) address the importance of understanding the culture, language, and even dialectal variation of the child's family. Saenz and Huer (2003) have found that in addition to dynamic assessment, a child will maximize his language capabilities when SLPs use nontraditional measures of assessment that foster a natural environment for the child, one that is unbiased, fair, and accurate, and create a representative assessment of the child's language development. From a concise review of literature, De Lamo White & Jin (2011) found that accurate assessment of language impairment in children who are bilingual came from dynamic assessment and even criterion-referenced measures, only

when SLPs also understood and integrated the child's ethnographic background into the results. The involvement of the family is of paramount importance for a child to receive the best possible assessment and treatment (Kummerer, 2010). Cleave et al. (2010) had a group of children who were bilingual (representing 9 different first languages) and a group of children who were monolingual take a standardized test in addition to recording samples from the children's narratives in order to assess whether they had a language disorder. When analyzing both groups, the authors found that the narrative measures in the children who were bilingual did not vary from that of the monolingual children, however, the standardized tests did. Although the narratives were less biased than the standardized tests, the group of children who were bilingual performed more poorly than the group of monolingual children on the narratives from previous research reports, therefore, Cleave et al. (2010) caution the use of narratives for measuring language performance as the sole method of assessment for individuals who are bilingual.

Two vocabulary measures of assessment were tested by Core, Hoff, Rumiche, and Señor (2013) to see if young children who were bilingual were at risk for language delay. Total vocabulary and conceptual vocabulary methods were used to measure mean vocabulary size and growth on a group of Spanish-English bilingual children and on a group of monolingual children, from ages 20 to 33 months. Scores from the total vocabulary method displayed an average rate of growth similar in both groups, however, the conceptual vocabulary scores were significantly lower and improved at a much slower rate in children who were bilingual. The results displayed that the total vocabulary method seemed to be an effective method of assessment for assessing bilingual children's early language development. In 2009, Hasson, Camilleri, Jones,

Smith, and Dodd developed the Dynamic Assessment of Preschoolers' Proficiency in Learning English (DAPPLE) test for clinicians to differentiate between disorder and difference among children who are bilingual learning English as a second language. They used a 60-minute test-teach-test method of assessment on both children who were bilingual and currently in speech therapy and on children who were bilingual, similarly matched in age and socioeconomic status, but had never been referred to speech therapy. The DAPPLE measured the children's ability to learn vocabulary, sentence structure, and phonology. The results from the DAPPLE provided a clear distinction between those who had a disorder and those who displayed differences due to their bilingual language learning environment. However, the authors acknowledged that to better evaluate the accuracy of the DAPPLE, further case studies would need to be conducted in order to use it as a measure for pre-assessing whether a child would need therapy (Hasson et al., 2009).

Throughout the literature, although authors suggest alternative methods of assessment for children who are bilingual as opposed to only assessing them with standardized measures, they agree that because of the variance in each child's language development, it is necessary to use a combination of assessment methods when diagnosing each child. Laing and Kamhi (2003) believe that if the existing tests used on individuals who are monolingual are modified to better capture the culturally and linguistically diverse (CLD) groups or if instruments are designed for specific groups that are bilingual, then fewer individuals will be misidentified as having a disorder. Hambly et al. (2013) also acknowledge the need for developing more tools to better assess children who are bilingual. Ingvalson, Ettliger, and Wong (2014) argue that there is

extensive individual variability in terms of the literature that provide ways to assess bilingual children, and therefore suggest that future efforts should capitalize on the most “efficacious training paradigms” (p. 35).

Language of Assessment and Intervention

One of ASHA’s criteria for SLPs is to assess children who are bilingual in their primary language. Contrary to ASHA’s suggestions, many professionals believe children should be assessed in both of their languages, even if they are highly proficient in one or both languages (Jordaan, 2008; Gutierrez-Clellen, 1999; De Lamo White & Jin, 2011; Thordardottir, Rothenberg, Rivard, & Naves, 2006; Thordardottir, 2010). Over fifteen years ago, Gutierrez-Clellen (1999) addressed the development of languages in children who are bilingual, and wrote about the great variability of second-language acquisition and language-learning processes, saying that those processes were not yet well understood, thus her research concluded that children’s language performance could be maximized when using a bilingual approach to intervention. A proper method of assessment and intervention for children who are bilingual is to tailor it based on the child’s natural environment, therefore, if the child speaks two languages, assessment should be done in both languages (Thordardottir, 2010). Although a child who is bilingual may be highly proficient in one of his or her languages, there is a strong relationship between the amount of exposure one receives and the level of language skill; therefore, even when assessing children in their dominant language only, their total language potential is not being evaluated (Hoff et al., 2012). McLeod, Verdon, Bowen, and the International Expert Panel on Multilingual Children’s Speech (2013) reviewed a position paper that compiled and summarized the methods and practices to be used with

children with speech sound disorders who are multicultural and bilingual. In the paper, the authors reiterated the necessity of assessing in both of a child's languages, and stated that it can be achieved through many resources, including the use of interpreters.

Girolametto and Cleave (2010) reviewed and summarized the newest literature in relation to assessment and intervention of children with language impairment who are bilingual. Their encouraged method when assessing children who are bilingual was to not only collect data from both of the child's languages separately, but also to combine both languages into one session, thus creating an environment that mirrors many children's home environments where both languages are used simultaneously throughout conversation. Restrepo, Morgan, and Thompson (2013) conducted a study in order to determine the efficacy of a vocabulary intervention for dual-language learners (DLLs). They randomly assigned 202 preschool DLLs identified with language impairment, whose primary language was Spanish and second language was English, to one of four conditions: bilingual vocabulary, English-only vocabulary, bilingual mathematics, and English-only mathematics, in order to determine the best method intervention for the children. Results showed that the best method of intervention for the children was bilingual vocabulary, because not only was the children's English vocabulary comparable to the English-only intervention, but they also increased their Spanish vocabulary, unlike the English-only intervention. Regardless of the large quantity of literature and studies that support bilingual assessment and intervention for children who are bilingual, many SLPs do not follow such recommendations. In a study conducted by the International Association of Logopedics and Phoniatric's Multilingual Affairs Committee, the researchers surveyed SLPs in 10 different countries serving children who are bilingual

and found that 87% of the SLPs were using only one language in intervention, which was often not the child's first language (Jordaan, 2008).

Aware of the necessity for unbiased, standardized tests for Spanish-English bilingual children, clinicians in the past few years have developed tests that evaluate both of the child's languages. Peña, Gutiérrez-Clellen, Iglesias, Goldstein, and Bedore (2010) presented a test called Bilingual English Spanish Assessment (BESA), which integrated both of the child's languages into a single language score. They determined that the three best indicators for determining the child's language abilities were three measures of linguistic structure: mean length of utterances in English, grammar scores in both English and Spanish, and calculating the overall percentage of utterances that is grammatically correct (Peña & Bedore, 2011). In research presented at the 2013 ASHA national convention, Rochel Lazewnik, a University of Cincinnati Ph.D. graduate, found the BESA to be the "most highly discriminating of five standardized tests for predicting language impairment among bilingual children" (Peña, 2014).

In a recent study, McLeod and Verdon (2014) evaluated 30 published assessments in languages other than English, representing 19 different languages. For the evaluation, they used 41 different items to rate the tests based on conceptual and operational criteria. Five tests for assessing Spanish-English children who are bilingual were included in the review, Bilingual English-Spanish Assessment (BESA) (Peña, Gutierrez-Clellen, Iglesias, Goldstein, & Bedore, 2014), Contextual Probes of Articulation Competence: Spanish (CPAC-S) (Goldstein & Iglesias, 2006), Preschool Language Scales, 5th Edition, Spanish edition: Articulation Screener (PLS-5) (Zimmerman, Steiner, & Pond, 2012), Spanish Articulation Measures (Mattes, 1995), and Spanish Preschool Articulation Test

(Tsugawa, 2002). The two tests that scored the highest when meeting the criteria were the CPAC-S and the BESA.

Gillam, Peña, Bedore, Bohman, and Mendez-Perez (2013) conducted a study involving 13 different elementary schools with a large bilingual Hispanic/Latino population, in which students that met the criteria of being bilingual and scoring in the 30th percentile were tested for specific language impairment using an English test. The accuracy of the test was assessed by sensitivity (counting the students that were assessed with speech language impairment by experts as well as by the test) and specificity (those who were determined by experts to not having speech language impairment and the test giving the same results). Guided by the results and contrary to the majority of literature, Gillam et al. (2013) concluded that an English-only test was a fairly accurate method for assessing children who are bilingual, whose second language was English, for specific language impairment, as long as the child had attended a public school for one year with an accuracy in English of at least 30%. Combined with parent and teacher concern for the child's development, this test offers an improvement to assessing children with specific language impairment. Paradis, Schneider, and Duncan (2013) analyzed the scores of 152 English Language Learners (ELL) typically developing students and 26 ELL students with language impairment through the combination of various tests. The Comprehensive Test of Phonological Processing (CTOPP) (Wagner, Torgesen, & Rashotte, 1999), a test of nonword repetition to determine children's memory of phonological sounds, was conducted by asking students to repeat nonsense words varying in length and complexity. The Test of Early Grammatical Impairment (TEGI) (Rice & Wexler, 2001) measured the clients' accuracy in producing the proper tense morphology

in third person singular (-s) inflection and past irregular verbs through the use of prompts while examining pictures where students chose the correct verb choice. The Edmonton Narrative Norms Instrument (ENNI) (Schneider, Dube, & Hayward, 2005) was a story grammar test where the children read a story and, with the page turned over, were then asked to retell the story in their own words. The Peabody Picture Vocabulary Test (PPVT) (Dunn & Dunn, 1997) test measured the size of the children's receptive vocabulary by matching pictures with their respective words. Paradis et al. (2013) also evaluated the children using a parent questionnaire on first-language development, called the Alberta Language and Development Questionnaire (ALDeQ) (Paradis, Emmerzael, & Duncan, 2010). The results from the study concluded that the best English-only test for discriminating between the typically developing children and those with language impairment were nonword repetition and tense morphology. Paradis et al. (2013) found that there was no difference in the problems faced among the children with language impairment, whether English was their first or second language. The authors acknowledged that conducting a more comprehensive study would better determine the tests' accuracy because they had only used subtests of the tests listed above.

Working with Interpreters

Due to the large influx of people who speak Spanish in the United States, the majority of monolingual speech-language pathologists inevitably many have and will increasingly have children who are bilingual on their caseloads. When SLPs assess children whose primary language the SLPs do not speak, interpreters serve to bridge the communication barriers of the child and the child's family with the speech-language pathologist. Langdon (2006) addressed challenges that may arise when using

interpreters: 1) the interpreter speaks more or even less than what the SLP has actually said; 2) the SLP wants to be sure the proper message has been conveyed to the client, but has no way of knowing; 3) the interpreter takes the leading role of the SLP rather than remaining “neutral;” 4) an individual involved with the child’s family may be bilingual and does not agree with the interpreter’s translations. It is not required to be certified in order to interpret for SLPs, therefore it is vital that SLPs learn guidelines to best work with interpreters. ASHA (2004) states that SLPs need to ensure that the interpreter has knowledge and skills about the proficiency of the client’s primary language, familiarity of the client’s culture and community, knows the professional terminology used by SLPs, understands basic assessment measures in order to properly understand the SLP’s objectives, and can use various interviewing techniques, including ethnographic interviewing. ASHA (2004) and Langdon (2006) also suggest that SLPs find an interpreter they can work with multiple times to establish a professional, working relationship. It is also crucial that the interpreter remain neutral to not skew the results (ASHA, 2004; Hwa-Froelich & Wesby, 2003; Jordaan, 2008; Langdon, 2006; Williams & Wirka, 2013). Another problem SLPs sometimes face is the lack of qualified interpreters, causing SLPs to many times use the client’s family members as their interpreters. In a study conducted by the Multilingual Affairs Committee of the International Association of Logopedics and Phoniatrics, of the 18% of SLPs that used interpreters, more than half used family members or the clients themselves as their interpreters, causing neutrality to be lost (Jordaan, 2008). When Kritikos (2003) surveyed 811 speech-language pathologists from all 6 regions of the United States, 85% of the monolingual SLPs, 75% of the SLPs learning another language through “academic

study,” and 72% SLPs learning another language through “cultural experience” answered that they were “not competent” or “somewhat competent” when assessing children whose first language they did not share, even with the aid of an interpreter. Only 20% of the SLPs had received any pre-service training related to working with interpreters. Following a similar format of Kritikos’s study, Cooley (2010) also found that the majority of Kentucky SLPs were “not competent” or “somewhat competent” when assessing children in a language they did not speak, even with the help of an interpreter. Only 13% of the SLPs had received training on how to work with interpreters. From these studies, one can see a strong correlation between the level of competence and the level of training an SLP has received, thus suggesting both the need for more training on how to collaborate with interpreters and the need for better qualified interpreters (Jordaan, 2008; Roseberry-McKibbin, Brice, & O’Hanlon, 2005).

Training SLPs during Graduate School

When Stockman, Boulton, and Robinson (2008) surveyed 731 faculty and clinical therapists in ASHA-accredited programs, they found that the majority agreed that multicultural issues were of great importance in the classroom; however, how the information was taught in the programs varied largely. This could be due to the fact that there were no guidelines for what needs to be taught or how much time should be devoted toward multicultural/multilingual issues (MMI). The majority of the faculty implemented an MMI-infused class, where multicultural issues were included with other topics, while fewer universities had MMI-dedicated courses. Roseberry-McKibbin et al. (2005) found that SLPs who had completed an entire university course in preparation to serve students who are bilingual faced fewer challenges working in the school system

than those who had not taken a university course focused on MMI. From the 731 surveyed faculty and professors, Stockman et al. (2003) found that the southern states were the ones lacking the most university coursework. This can be seen through observing the curriculum offered in a few of the Communication Sciences and Disorders (CSD) graduate programs in Mississippi and its bordering states. The University of Mississippi does not offer any course specific to MMI, and Jackson State University and Mississippi University for Women offer a multicultural course, but they are electives. The University of Southern Mississippi is the only school in Mississippi that has a required multicultural course. In the bordering states to Mississippi, a similar scenario is seen. At the University of Alabama, only students who have not taken any CSD undergraduate classes are required to take the “Multicultural Issues” class and those who have graduated with a Bachelor’s Degree in CSD have the option of choosing between that class and another elective of their choice. At the University of Memphis in Tennessee, there is a “Socio-Cultural Bases of Communication” class that is offered as an elective. At Louisiana State University and the University of Texas-Dallas they do not offer a class that focuses on multicultural issues. The University of Central Arkansas includes a required class for graduate students, titled “Cultural Diversity.”

Stockman et al. (2004) provide guidelines for helping professors and faculty better prepare their students for the professional world. They say that MMI instruction should expose students to specific examples of cultural differences to prepare them to address the cultural differences that occur in their professional work. In 2004, Stockman et al. believed infusion to be the best method for teaching multicultural issues, however, in 2008, based on the levels of competence professors and faculty had rated their students

when working with diverse populations, they found that the individuals who were far more competent were those who had taken a specific class focusing on MMI and not just integrated into their other classes. Although the majority of the professors and faculty used an MMI-infusion method, they did not view it as optimal for students' preparedness. In fact, 58% of the professors who did not have a MMI-specific course judged students to be only somewhat or poorly prepared to work with diverse populations (Stockman et al., 2004). Hammond, Mitchell, and Johnson (2009) surveyed 113 SLP program directors from across the country, and 100% of the respondents said that their students had received at least some academic training and practicum experiences related to culturally and linguistically diverse clients. They all believed that instruction related to culturally and linguistically diverse clients were just as important as other topics taught in their programs. However, the majority used an infusion method, which can result in a fragmentation of the information being taught (Hammond et al., 2009). Although the majority realized the importance of being culturally competent, Hammond et al. (2009) found that a major concern among many of the surveyed program directors was that many SLPs may lack adequate competence because they lacked supervised practica with culturally diverse populations. Hammer, J. S. Detwiler, J. Detwiler, Blood, and Qualls (2003) evaluated speech-language pathologists' confidence and training levels when working with English-Spanish bilingual children based on their own measurement of preparedness and level of training. From the 213 speech-language pathologists in the 41 different states surveyed, one-third reported not having received any training as students regarding multicultural issues and one-fifth reported not remembering whether they had or not. From undergraduate and graduate courses, 78% of SLPs had learned the

distinction between differences and disorders. One-third of the respondents' pre-service training focused on bilingualism, normal processes of second language acquisition and code switching, and about one fourth had received instruction on dynamic assessment, the use of interpreters, and the use of standardized tests with bilingual children (Hammer et al., 2003). Of the participants who had received training, only 25% reported receiving it through their graduate school education. The majority of the SLPs were not confident when assessing children who were bilingual whose first language was Spanish and whose parents did not speak English, but were confident in evaluating children who are bilingual whose first language was English. Approximately one-third of the 213 SLPs were interested in receiving additional training on at least three of the issues listed in the survey (Hammer et al., 2003). Interestingly, Rotsides and Johnson (2014) presented a poster at the 2014 Annual ASHA Convention in Orlando, Florida about CSD graduate students' perceived preparedness to work with culturally and linguistically diverse populations. In their study, they found, similar to Stockman et al.'s (2008) survey, that although there was a lack of classroom time devoted toward MMI, many participants and instructors still felt adequately prepared to work with CLD populations (Rotsides & Johnson, 2014). Rotsides and Johnson (2014) believed that the inconsistent results could have been because the respondents had not accurately and thoroughly self-analysed their set of skills and knowledge on how to work with CLD populations.

Through responses received by 104 SLPs working in Minnesota, Kohnert, Kennedy, Glaze, Kan, and Carney (2003) identified competencies needed for SLPs who provide services to individuals with whom they do not share a primary culture or language. They argued that core skills and knowledge needed to work with diverse

cultural and linguistic backgrounds should be required of all graduate students enrolled in professional training programs.

The ASHA states that “continued professional development of cultural competence in service delivery is critical” (ASHA, 2014). Among many listed resources to increase cultural competence, the ASHA website mentions studying and travelling abroad as an excellent way of developing cultural competence by better understanding different cultures from a variety of backgrounds. Many CSD graduate programs with a bilingual extension have implemented studying abroad as part of their students’ practicum. To increase university students’ knowledge about bilingual developmental topics, improve their professional use of Spanish, as well as increase the total number of Spanish-speaking SLPs, Our Lady of the Lake University in San Antonio implemented a program to better prepare SLPs to work with culturally and linguistically diverse children by offering students in the master’s program three additional bilingual courses. Thirty-two students graduated from this program, however, funding was limited for hiring more qualified faculty to teach the MMI (Acevedo, 2001). Graduate students from North Carolina Central University were offered a grant to travel to Veracruz, Mexico for a five-week training program to gain both cultural and linguistic immersion. The students were able to get hands-on practice working with Spanish speaking children and improve their language, both on a personal and professional level. Once the students completed their graduate program, they rated the Spanish courses in Mexico as very valuable and rated the training received prior to Mexico as much lower (Strauss, 2008). Rowden-Racette (2009) lists a few programs that have recently begun in order to address the high demand of qualified SLPs working with culturally diverse groups. Penn State University has

created the MOSAIC (Multiplying Opportunities for Services and Access for Immigrant Children) program in order to help future SLPs address concerns that are relevant to English language learners. Students do not have to be bilingual to join; the program focuses on students becoming culturally proficient when working with individuals who are bilingual. Indiana University has STEPS (Speech Therapy Education, Practicum, and Services), another program providing culturally competent services specifically addressing the Latino community. In STEPS, students take courses directly related to diversity issues and Spanish-language acquisition disorders, and complete 50 clinical hours with clients who are bilingual, this requires the students in the program to have an intermediate-level fluency in Spanish. At the ASHA convention in Orlando, FL, six directors from the graduate programs at Teachers College, Portland State University, University of Texas at Austin, New Mexico State University, University of New Mexico, and Arizona State University presented a seminar on their bilingual and multicultural concentrations (Crowley et al., 2014). Cultural competence increases when students take classes that are specifically focused on multicultural/multilingual instruction as opposed to only infused into other classes. Cultural competence is also likely to increase when students get practicum experience with linguistically and culturally diverse clients.

As a result of the author's interest in working with children who are bilingual and better understanding what CSD graduate training programs offer and this literature review, this research will address the following hypotheses.

1. All Communication Sciences and Disorders graduate programs offer a course specifically addressing multicultural/multilingual issues that adequately prepare speech-language pathologists to work with individuals who are bilingual.

2. All SLP graduate students are familiar with one assessment tool to use in an assessment of an individual who is bilingual.
3. All SLP graduate students are aware of ASHA's guidelines working with interpreters.

Chapter III

Methodology

Participants

Participants for this study are first and second year graduate students completing their course of study at a Council of Academic Programs/ASHA accredited graduate program, as well as students who have just graduated and are currently working in their clinical fellowship. In order to establish an even and equal representation of the population being surveyed, the graduate programs are divided into 4 different regions (Northeast, Midwest, South and West) per the United States Census Bureau guidelines. The Northeast includes the states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York and Pennsylvania. The Midwest includes the states of Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. The South includes Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington D.C., West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma and Texas. The West includes Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, and Washington. The survey will be sent to 5 graduate programs in each of the 4 regions, totaling 20 graduate programs.

Instrumentation

The instrument in this study is a fifteen-item questionnaire based on the Kritikos (2003) Speech-Language Services to Bilingual/Bicultural Individuals (SLSBBI) survey, which consisted of 25 items. The original version provided yes/no, multiple-choice, and Likert-type questions. Some of which included the option of making additional written comments about personal efficacy, general efficacy, and beliefs about the role of bilingual input (Kritikos, 2003). Kritikos's survey was piloted and revised more than 30 times based on feedback from the faculty at the University of Illinois-Chicago and the Survey Research Laboratory at the University of Illinois-Chicago (Kritikos, 2003). ASHA's Multicultural Issues Board also evaluated the study and provided the author with written feedback of the questionnaire and study, which was included into his final draft (Kritikos, 2003). The survey's population was speech-language pathologists currently working in the field, therefore, many of the questions related to their demographics did not align with the purpose of this study. This survey, adapted with permission from Kritikos's (2003) survey, has been created to determine the respondents' level of competency and training when working with individuals who are bilingual and is largely focused on the coursework available at graduate schools. The survey will be formatted and conducted through the online survey provider, Qualtrics. A link to the survey will be attached to the email sent to the graduate programs, which will also include a letter of explanation addressing the purpose of the study as well as the participants' understanding that once completing the survey, their responses will be used in the study. Programs and participants will continue to be contacted until an equally represented pool of surveys from each region of the United States has been collected.

The first two survey questions were formulated to establish information about applicant demographics.

In Question 1, the researcher asks where the applicant currently attends or attended graduate school.

Question 2 asks the applicant if he/she is a second year graduate student or currently in his/her clinical fellowship.

Questions 3 and 4 relate to the applicant's level of Spanish proficiency.

In Question 3, based on a 4-point Likert-scale from 1 (not proficient) to 4 (very proficient), participants are to rate their level of Spanish proficiency in listening, speaking, reading and writing.

Question 4 asks the participant how they achieved their level of Spanish proficiency, offering them the option of study abroad, school, home, and other.

Questions 5-8 ask information regarding the participants' graduate school coursework and their perceived importance of such coursework at their respective graduate programs.

Question 5 asks participants how their multicultural/multilingual instruction topics were addressed in their graduate school coursework. The options include: a) one course specifically focused on Multicultural/multilingual issues, b) various courses specifically focused on Multicultural/multilingual issues, c) one course infused with Multicultural/multilingual issues, d) various courses infused with Multicultural/multilingual issues, and e) course(s) specifically focused multicultural/multilingual issues plus infusion.

Question 6 asks how much of the participant's coursework was devoted to multicultural/multilingual instruction. Options include: a) less than 5 hours, b) 5 – 10 hours, c) 11 – 20 hours, d) 21 – 30 hours, e) 31 – 40 hours, and f) more than 40 hours

Question 7 asks if the participant received any coursework in any of the following areas and to select all that applied: second language acquisition, cultural practices of the Spanish-speaking community, appropriate assessment tools for children who are bilingual, appropriate treatment/therapy procedures for children who are bilingual, and how to work with a language interpreter.

Question 8 asks participants if they have completed any practicum working with bilingual children.

Questions 9 and 10 relate to the participants' level of competence.

Question 9 asks participants, with the help of an interpreter, after having taken their coursework, how competent they would feel working with an individual who is bilingual: very competent, competent, somewhat competent, not competent.

Question 10 is a follow-up to Question 9 and asks the participant what his/her competency is based on: multicultural/multilingual coursework, Spanish proficiency, and/or practice clinical hours.

Question 11 is also a follow-up for those who answered "somewhat competent" and "not competent" in Question 9, they are to report whether it is due to a lack of multicultural/multilingual coursework, lack of Spanish proficiency, and/or lack of clinical hours.

Question 12 was included to determine which areas the participants believe they may have to consider when working with persons who are bilingual. The researcher is asking

the participants to select from a list of eight items, what areas the SLPs believe they would encounter when assessing individuals who speak other languages but may demonstrate specific language disorders in one or any of their languages. The list includes: a) a lack of knowledge of clients' culture, b) lack of knowledge of the nature of second language acquisition, c) difficult to distinguish a language difference from a language disorder, d) lack of availability of interpreters who speak the individual's language, e) lack of availability of bilingual speech-language pathologists who speak the individuals' language, f) lack of developmental norms and standardized assessment tools in languages other than English, and g) other with space provided for the participants to explain their answers.

Question 13 asks participants if they see the need for additional training in multicultural/multilingual issues for improving their competence when working with individuals who are bilingual. The options include: a) second language acquisition, b) working with an interpreter, c) cultural practices of the Hispanic/Latino community, d) appropriate assessment tools, e) appropriate treatment/therapy procedures, and f) other.

Question 14 asks the participants if they see the need for more academic coursework in specific multicultural/multilingual issues for the improvement of their competence when working with individuals who are bilingual. They were to select all of the topics for which they believed they needed additional coursework. The options are as follows: a) second language acquisition, b) working with an interpreter, c) cultural practices of the Hispanic/Latino community, d) appropriate assessment tools, e) appropriate treatment/therapy procedures, and f) other.

Question 15 asks the participants to rank in terms of importance, effective ways to improve their preparation and the preparation of future speech-language pathologists to work with individuals who are bilingual, choosing either very important, important, somewhat important, or unimportant. The four areas listed suggest: a) additional academic coursework focusing on bilingualism, b) more practicum experience with clients who are bilingual, c) seminars and workshops on bilingualism, and d) an increase of journal articles on bilingualism.

Chapter IV

In the following chapter, the author summarizes the results from the Qualtrics-based survey. The results are summarized according to the questions listed in the survey and are followed by charts listing first the responses from both the total participants and then the responses from the participants in Mississippi graduate programs.

Results of the Research

The survey was e-mailed to 77 accredited Communication Sciences and Disorders (CSD) departments across the United States, to at least one CSD program in every state, excluding Alaska, Hawaii, and Delaware. The CSD programs then distributed the survey to their current first and second year graduate students and to some students working on their clinical fellowships. Although it was not this author's original intent, audiology students also completed the survey and those results have been included. In total, 30 representative graduate programs completed the survey, and two programs responded saying they did not have current graduate students, removing them from participation. One program indicated they had a policy that did not permit them to distribute surveys among their students. The survey questions were derived from a current review of literature regarding the preparedness of speech-language pathologists to work with clients who are bilingual. A total of 238 students completed the survey. Readers are referred to Appendix D for the sample survey. The following paragraphs will summarize and discuss the survey results.

Demographics

The first and second questions were included to gather demographics about the Communication Sciences and Disorders students and clinical fellowship individuals. Questions 1 and 2 were included to gather demographics about the Communication Sciences and Disorders students and clinical fellowship individuals.

Question 2 allowed the researcher to ensure a cross-sectional study, as opposed to a limited geographical representation. Originally, the author planned to link the participants' region of their graduate program to various other questions on the survey, such as, their levels of competence, hours of courses addressed, and topics taught. However, due to limitations when compiling and analyzing data in the Qualtrics software, creating a new *regions* category for the text entry in Question 2 was not possible. Due to limited resources and time, the author chose Mississippi as the one representative state to be analyzed individually in addition to the overall results. The author selected Mississippi because it is her home state and the location of her current undergraduate program. A second request was sent to CAA-accredited CSD programs in Mississippi. Students in three of the four programs responded, totaling 98 responses. According to the data gathered from Stockman and her colleagues (2003), in the United States, the southern states had more SLP students who lacked confidence to work with children who are bilingual. The author's intent for this question was to see if there were different levels of perceived competence depending on the student's region. Table 1 shows the level of education of all the survey respondents, Table 2 shows specifically the Mississippi respondents' level of education, and Table 3 lists the graduate schools that participated along with the quantity of responses from each program.

Table 1

Total Participants' Level of Education

Answer	Response	%
First year graduate student	116	48.7%
Second year graduate student	116	48.7%
Currently working as a clinical fellow	6	2.5%
Total	238	100.0%

Note. N stands for number of participants

Participants consisted of first year graduate students (n=116), second year graduate students (n=116), and working as clinical fellows (n=6).

Table 2

Mississippi Participants' Level of Education

Answer	Response	%
First year graduate student	42	42.9%
Second year graduate student	53	54.1%
Currently working as a clinical fellow	3	3.1%
Total	98	100.0%

In Mississippi, participants consisted of 42 first year graduate students, 53 second year graduate students, and 3 currently working as a clinical fellow.

Table 3

Total Participants' Graduate Schools

Graduate Program		# of Respondents	
California State University Long Beach	8	University of Memphis	2
Eastern Washington University	5	University of Minnesota - Twin Cities	9
Florida International University	10	University of Mississippi for Women	8
La Salle University	2	University of Mississippi	78
Ohio State University	11	University of Nebraska- Lincoln	7
Ohio University	6	University of North Dakota	2
Portland State University	8	University of Pittsburgh	3
Purdue University	5	University of South Carolina	8
Radford University	4	University of Southern Mississippi	12
San Diego State University	5	University of Texas at Austin	4
Southern Connecticut State University	3	University of Vermont	4
Texas Christian University	5	University of Wisconsin- Stevens Point	6
University of Arkansas- Fayetteville	3	Unknown	2
University of Colorado Boulder	5	Washington State University	3
University of Iowa	4	Western Kentucky University	4
University of Louisiana at Lafayette	2		

Table 3 lists each graduate program that participated, along with the number of respondents. Table 4 displays the three graduate programs from Mississippi that participated.

Table 4

Mississippi Participants' Graduate Schools

Answer	Response
University of Southern Mississippi	12
University of Mississippi for Women	8
University of Mississippi	78

There were 78 responses from the University of Mississippi, 12 from the University of Southern Mississippi, and eight from the University of Mississippi.

Table 5 shows the number of responses from the four regions of the United States: South, Northeast, Midwest, and West.

Table 5

Participants' Regions

Answer	Response	%
Northeast	12	5.08%
Midwest	50	21.19%
South	140	59.32%
West	34	14.41%
Total	236	100.00%

The survey results consisted of 140 responses from the South, 13 from the Northeast, 50 from the Midwest, and 34 from the West. Two respondents did not include their school program and therefore, were not tallied into a specific region.

Spanish Proficiency

Questions 3 and 4 were included to gather information on the participants' self-assessed levels of Spanish proficiency in various categories and to determine the means by which such proficiency was obtained.

Question three.

Participants were asked to rate their level of proficiency in listening to conversation in Spanish, speaking, reading, and writing in Spanish. The areas of self-assessment are the following: "not proficient," "somewhat proficient," "proficient," and "very proficient." Kritikos (2003) states that SLPs have increased self-efficacy when working with clients if they are proficient in the client's language, or even if the SLP's second language does not match the client's language. This question was included to observe the relationship between the respondents' proficiency and their level of competence, when and if working, with children who are bilingual.

Table 6

Total Levels of Spanish Proficiency

Question	Not proficient	Somewhat proficient	Proficient	Very proficient
Listening	110	80	24	24
Speaking	136	62	22	18
Reading	117	67	31	23
Writing	151	48	24	15

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

Over 75% of the participants were “not proficient” and “somewhat proficient” in Spanish in all four categories. Of the 238 respondents, 79.8% (n=190) were “not proficient” and “somewhat proficient” in listening to Spanish, 83.2% (n=198) in speaking, 77.3% (n=184) in reading, and 83.6% (n=199) in writing. Only 20% (n=48) reported to be “proficient” and “very proficient” in listening, 16.8% (n=40) in speaking, 22.7% (n=54) in reading, and 16.4% (n=39) in writing.

Table 7

Mississippi Levels of Spanish Proficiency

Question	Not proficient	Somewhat proficient	Proficient	Very proficient
Listening	60	35	3	0
Speaking	69	26	3	0
Reading	63	31	3	1
Writing	77	19	1	1

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

In Mississippi, over 95% of participants were either “not proficient” or “somewhat proficient” in listening to conversational Spanish, speaking, reading, and

writing in Spanish. Of the 98 Mississippi respondents, 96.9% (n=95) were either “not proficient” or “somewhat proficient” in listening, 96.7% (n=85) in speaking, 95.9% (n=94) in reading, and 98.0% (n=96) in writing. Three participants were “proficient” in listening, speaking, and reading, and only one in writing. Only one participant reported to be “very proficient” in both reading and writing.

Question four.

Question 4 examines how participants achieved their levels of Spanish proficiency. This gives the reader some insight on how language proficiency correlates to its method of acquisition.

Table 8

Total Methods of Spanish Acquisition

Answer	Response	%
Study abroad	20	8.4%
Primary and/or secondary school/college	102	42.9%
Self-study	10	4.2%
Native speaker	14	5.9%
No established proficiency	92	38.7%
Total	238	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

In total, the highest percentage of participants (42.9%) achieved their Spanish proficiency through “primary and/or secondary school/college” and 38.7% reported “no established proficiency.” Spanish proficiency was also achieved through “study abroad” (8.4%), as a “native speaker” (5.9%), and “self-study” (4.2%).

Table 9

Mississippi Methods of Spanish Acquisition

Answer	Response	%
Study abroad	1	1.0%
Primary and/or secondary school/college	50	51.0%
Self-study	2	2.0%
Native speaker	0	0.0%
No established proficiency	45	46.0%
Total	98	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

In Mississippi, a little over half of participants (51%) achieved their level of Spanish proficiency through “primary and/or secondary school/college” and nearly half (46%) had “no established proficiency.” Only 1% of respondents acquired their Spanish proficiency through study abroad and 2% through self-study. No one from the Mississippi graduate programs reported to be a native Spanish speaker.\

Table 10

Crosstab Analysis of Spanish Acquisition and Level of Proficiency in Listening

		3. Rate your proficiency in Spanish - Listening				Total
		Not proficient	Somewhat proficient	Proficient	Very proficient	
4. How did you achieve your level of Spanish proficiency? Select the one that most closely applies.	Study abroad	0	5	7	8	20
	Primary and/or secondary school/college	24	62	14	2	102
	Self-study	0	7	1	2	10
	Native speaker	0	0	2	12	14
	No established proficiency	86	6	0	0	92
	Total	110	80	24	24	238

Of the participants who reported being “very proficient” in Spanish listening (n=24), most achieved it through study abroad (n=8) or as a native speaker (n=12). A couple of participants were “very proficient” from self-study (n=2) and from “primary and/or secondary school/college” (n=2). Participants who were “proficient” in Spanish claimed to have achieved it through “primary and/or secondary school/college” (n=14), study abroad (n=7), being a native speaker (n=2), and self-study (n=1). The majority of the participants who were “somewhat proficient” in Spanish (n=80) had gained their proficiency through “primary and/or secondary school/college” (n=62), followed by self study (n=7), and study abroad (n=5). Almost half of the survey participants were “not proficient” in listening to conversational Spanish, of those, 24 participants said it was due to “primary and/or secondary school/college.” Eighty-six participants selected “no established proficiency.”

Graduate Programs

Questions 5 through 7 address the participants' graduate programs. These questions were designed to determine the quality and quantity of the multicultural/multilingual issues (MMI) being taught at the graduate level.

Question five.

Participants were asked how multicultural/multilingual issues were addressed in their graduate program. This question was included to examine if students are being prepared in their graduate program to work with clients who are bilingual. The question was followed by an ASHA definition of "multicultural" to provide the participants a framework for the definition.

Table 11

Total Organization of Classes Teaching Multicultural/Multilingual Issues

Answer	Response	%
One course specifically focused on multicultural/multilingual issues	34	14.3%
Various courses specifically focused on multicultural/multilingual issues	29	12.2%
One course infused with multicultural/multilingual issues	16	6.7%
Various courses infused with multicultural/multilingual issues	121	50.8%
Course(s) specifically focused on multicultural/multilingual issues plus infusion	38	16.0%
Total	238	100.0%

A little over half of participants (50.8%) reported their graduate programs having "various courses infused with multicultural/multilingual issues," while 16% reported

taking “course(s) specifically focused on multicultural/multilingual issues plus infusion,” and 12% reported taking “various courses specifically focused on multicultural/multilingual issues.” A small percentage (6.7%) reported having only “one course infused with multicultural/multilingual issues.”

The percentage of students indicating that their graduate programs offer courses specifically addressing MMI is significantly higher than what Robinson and his colleagues (2008) found. In their survey, they found that faculty rarely taught a course specifically addressing MMI, and when the classes were infused with MMI, only a minimal amount of time was devoted toward such topics. Data in Table 12 show that addressing MMI is increasing in a positive trend as more graduate programs adopt MMI into their curriculum.

Table 12

Mississippi Organization of Classes Teaching Multicultural/Multilingual Issues

Answer	Response	%
One course specifically focused on multicultural/multilingual issues	16	16.3%
Various courses specifically focused on multicultural/multilingual issues	11	11.2%
One course infused with multicultural/multilingual issues	9	9.2%
Various courses infused with multicultural/multilingual issues	60	61.2%
Course(s) specifically focused on multicultural/multilingual issues plus infusion	2	2.0%
Total	98	100.0%

In Mississippi, the highest percentage of respondents (61.2%) reported taking various courses infused with MMI, followed by 16.3% reporting taking “one course

specifically focused on multicultural/multilingual issues.” Some respondents (11.2%) reported taking “various courses specifically focused on multicultural/multilingual issues,” 9.2% reported taking only “one course infused with multilingual/multicultural issues, and only 2.0% reported taking “course(s) specifically focused on multicultural/multilingual issues plus infusion.” As seen in Table 11 and Table 12, because of the answer choices’ wording, a large amount of participants put contradictory information about their programs, reporting they had taken multiple classes that were specifically focused on MMI, yet had only taken less than 5 hours (see Table 13).

Question six.

Participants reported the amount of classroom hours attributed to multicultural/multilingual issues (MMI). Question 6 gives an in-depth perspective on the organization of MMI instruction and the amount of hours devoted to such topics. The responses to this question were more consistent than the results from Question 5; most participants from the same graduate programs selected the same amount of hours that their program offered.

Table 13

Total Classroom Hours of Multicultural/Multilingual Issues

Answer	Response	%
Less than 5 hours	68	28.6%
5 - 10 hours	64	26.9%
11 - 20 hours	38	16.0%
21 - 30 hours	22	9.2%
31 - 40 hours	16	6.7%
More than 40 hours	30	12.6%
Total	238	100.0%

The data from Table 13 show that over half of the participants received 10 or less hours of MMI; 28.6% reported “less than 5 hours” and 26.9% selected “5-10 hours.” Furthermore, 16% of respondents had received 11-20 hours, 9.2% had taken 21-30 hours, 6.7% were taught for 31-40 hours, and 12.6% had received more than 40 hours of MMI.

Table 14

Mississippi Classroom Hours of Multicultural/Multilingual Issues

Answer	Response	%
Less than 5 hours	40	40.9%
5 - 10 hours	39	39.8%
11 - 20 hours	11	11.2%
21 - 30 hours	3	3.1%
31 - 40 hours	2	2.0%
More than 40 hours	3	3.1%
Total	98	100.0%

In Mississippi, 40.9% of participants reported being taught less than 5 classroom hours on multicultural/multilingual issues, and roughly 40% (39.8%) reported receiving 5-10 hours of MMI. About 11% (11.2%) reported receiving 11-20 hours. The least amount of responses were for 21-30 hours (3.1%), 31-40 hours (2.0%), and more than 40 hours (3.1%).

Question seven.

Question 7 directed participants to select all of the topics taught in their classes. The qualitative data allows one to see which multicultural/multilingual issues in the graduate program curriculum are being addressed. In Table 15 and those following it, note that if the total exceeds 238 in the total and 98 in the Mississippi chart, it is because participants were to select all that applied.

Table 15

Total Graduate Program Coursework

Answer	Response	%
Second language acquisition	180	76.6%
Cultural practices of the Spanish-speaking community	127	54.0%
Differential assessment of individuals who are bilingual vs. monolingual	203	86.4%
Appropriate assessment tools for children who are bilingual	187	79.6%
Language disorder vs. language difference	224	95.3%
Guidelines involved in the assessment and treatment of clients who are bilingual	180	76.6%
Using a language interpreter	181	77.0%
Total	1282	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

Table 15 shows that over 95% (95.3%) have learned about “language disorder vs. language difference” and 86.4% about “differential assessment of bilinguals vs. monolinguals.” Nearly 80% (79.6%) reported that their program addressed “appropriate assessment tools for children who are bilingual,” 77% about “using a language interpreter,” and 76.6% equally about “guidelines involved in the assessment and treatment of clients who are bilingual” and “second language acquisition.” On the other hand, only 54% reported their coursework covering “cultural practices of the Spanish-speaking community.” Although this category excluded other ethnic backgrounds, the author asked the specific question intended to gather information about individuals’ knowledge of the Hispanic community in the United States.

Table 16

Mississippi Graduate Program Coursework

Answer	Response	%
Second language acquisition	63	64.3%
Cultural practices of the Spanish-speaking community	56	57.1%
Differential assessment of individuals who are bilingual vs. monolingual	77	78.6%
Appropriate assessment tools for children who are bilingual	69	70.4%
Language disorder vs. language difference	95	97.0%
Guidelines involved in the assessment and treatment of clients who are bilingual	69	70.4%
Using a language interpreter	69	70.4%
Total	498	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

In Mississippi, 97% of respondents have learned about “language disorder vs. language difference” and 78.6% have been taught about “differential assessment of individuals who are bilingual vs. monolingual.” Roughly 70% (70.4%) of respondents reported learning about “using a language interpreter,” “guidelines involved in the assessment and treatment of clients who are bilingual,” and “appropriate assessment tools for children who are bilingual.” Respondents also had been taught about “second language acquisition” (64.3%) and “cultural practices of the Spanish-speaking community” (57.1%).

Clinical and Academic Preparation

Questions 8 through 15 address participants’ overall levels of competence and preparedness when working with individuals who are bilingual. They chose which topics related to MMI were deemed as important for preparing future SLPs.

Question eight.

Participants were asked if they had completed any clinical hours with individuals who are bilingual. This question was included to determine whether a relationship existed between participants' levels of competence and their completion of clinical hours with clients who are bilingual.

Table 17

Total Completion of Clinical Hours

Answer	Response	%
Yes	114	47.9%
No	124	52.1%
Total	238	100.0%

Of the total participants, 47.9% had completed clinical hours with clients who were bilingual and 52.1% had not completed any clinical hours.

Table 18

Mississippi Completion of Clinical Hours

Answer	Response	%
Yes	38	38.8%
No	60	61.2%
Total	98	100.0%

About 61% (61.2%) of the respondents in Mississippi had not completed clinical hours with clients who are bilingual, compared to only 38.8% who had completed experience with such clients. Mississippi respondents had completed fewer clinical hours with clients who are bilingual than the total amount of participants.

Question nine.

Participants were asked how competent they believed themselves to be, with the help of an interpreter, to work with individuals who are bilingual upon completion of their graduate program. Competent is defined as one that is “able to do something well or well enough to meet a standard” (Merriam-Webster’s online dictionary, n.d.). Cultural competence is “ understanding and appropriately responding to the unique combination of cultural variables—including ability, age, beliefs, ethnicity, experience, gender, gender identity, linguistic background, national origin, race, religion, sexual orientation, and socioeconomic status—that the professional and client/patient bring to interactions” (ASHA, 2015). The participants’ competence levels were then cross-tabulated with the participants’ level of education, their level of Spanish proficiency, clinical hours with clients who are bilingual, and the amount of MMI coursework they have been taught. This question has high importance in considering the overall competence of future SLPs in 2015.

Table 19

Total Competence with a Bilingual Client

Answer	Response	%
Very Competent	29	12.2%
Competent	61	25.6%
Somewhat Competent	103	43.3%
Not Competent	45	18.9%
Total	238	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

Of the total participants, 43.3% felt “somewhat competent” upon completion of their graduate program, and with the help of an interpreter, to work with clients who are bilingual. Only 12.2% felt “very competent” and 25.6% claimed to be “competent.” Nearly 19% (18.9%) felt “not competent.”

Table 20

Mississippi Competence with a Bilingual Client

Answer	Response	%
Very Competent	4	4.1%
Competent	11	11.2%
Somewhat Competent	50	51.0%
Not Competent	33	33.7%
Total	98	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

Once employed after graduation, from the graduate programs in Mississippi, only 4.1% believed to be “very competent” to work with clients who are bilingual, 11.2% reported to be “competent,” 51% as “somewhat competent,” and 33.7% were “not competent.” In Mississippi, the percentage of participants who felt “competent” and “very competent” to work with individuals who are bilingual was 22.5% lower than the total population.

Table 21

Crosstab Analysis of Level of Education and Competence

		2. Choose the one below that most clearly represents you			Total
		First year graduate student	Second year graduate student	Currently working as a clinical fellow	
9. Following completion of your coursework related to multicultural/multilingual issues, with th...	Very Competent	9	16	4	29
	Competent	29	32	0	61
	Somewhat Competent	55	46	2	103
	Not Competent	23	22	0	45
Total		116	116	6	238

Table 21 shows that 4 of the 6 clinical fellows selected “very competent” to Question 9 and 41.4% of the 116 second year graduate students were “very competent” or “competent,” as opposed to the 116 first year graduate students, of whom only 32.8% reported “very competent” or “competent.” The opposite applies for those who selected “somewhat competent” or “not competent;” with only 58.6% of second year graduate students selecting only those two categories, and 67.2% of first year graduate students selecting them.

Table 22

Crosstab Analysis of Spanish Proficiency and Level of Competence

		3. Rate your proficiency in Spanish - Listening				Total
		Not proficient	Somewhat proficient	Proficient	Very proficient	
9. Following completion of your coursework related to multicultural/multilingual issues, with th...	Very Competent	3	10	5	11	29
	Competent	20	19	12	10	61
	Somewhat Competent	59	36	5	3	103
	Not Competent	28	15	2	0	45
Total		110	80	24	24	238

The cross-tabulation in Table 22 is included to compare the participant’s level of competence with their level of Spanish proficiency. Table 22 confirms that 21 (87.5%) of the 24 who were very proficient in Spanish claimed to be “very competent” or “competent.” Nearly 71% (70.9%) (n=17) of the 24 who rated themselves as “proficient” in Spanish selected either “very competent” or “competent.” Only 36.3% (n=29) of the 80 participants who chose “very competent” or “competent” were “somewhat proficient” in Spanish, and only 20.9% (n=23) of the 110 participants who were “not proficient” in Spanish were either “very competent” or “competent.”

Table 23

Crosstab Analysis of Amount of Coursework and Level of Competence

		6. Throughout your graduate program coursework, estimate how much teaching time was directed to...						Total
		Less than 5 hours	5 - 10 hours	11 - 20 hours	21 - 30 hours	31 - 40 hours	More than 40 hours	
9. Following completion of your coursework related to multicultural/multilingual issues, with th...	Very Competent	3	5	3	5	5	8	29
	Competent	9	14	13	6	7	12	61
	Somewhat Competent	28	33	20	10	3	9	103
	Not Competent	28	12	2	1	1	1	45
	Total	68	64	38	22	16	30	238

The cross-tabulation in Table 23 shows that there is not a strong relationship between the amount of teaching time directed toward MMI and those who selected “very competent” or “competent” when working with individuals who are bilingual. However, 88.9% (n=40) of the 45 who were “not competent” reported receiving either “less than 5 hours” or “5-10 hours” of MMI.

Table 24

Crosstab Analysis of Clinical Hours and Level of Competence

		8. Have you completed clinical hours with an individual who is bilingual?		Total
		Yes	No	
9. Following completion of your coursework related to multicultural/multilingual issues, with th...	Very Competent	24	5	29
	Competent	37	24	61
	Somewhat Competent	42	61	103
	Not Competent	11	34	45
	Total	114	124	238

Table 24 shows how competence levels are higher among those who have completed clinical hours. Out of the 29 participants who were “very competent,” 82.8% (n=24) had completed clinical hours with clients who were bilingual. Nearly 61% (60.7%) of the 61 participants who were “competent” had completed the clinical hours. Of the 148 participants who felt “somewhat competent” or “not competent” to work with individuals who were bilingual, 64.2% of them had not completed clinical hours with an individual who was bilingual.

Question ten.

The participants who answered “very competent” or “competent” in Question 9 reported whether they believed it was due to their multicultural/multilingual coursework, Spanish proficiency, and/or clinical hours. Take note that 19 participants skipped this question.

Table 25

Total Reason for Competence

Answer	Response	%
Multicultural/multilingual coursework	79	36.1%
Spanish proficiency	48	21.9%
Clinical hours	66	30.1%
Does not apply	123	56.2%
Total	316	100.0%

In Question 10, 36.1% responded that they felt either “very competent” or “competent” to work with clients who are bilingual due to their “multicultural/multilingual coursework,” 30.1% responded “clinical hours,” and only 21.9% answered “Spanish proficiency.”

Table 26

Mississippi Reason for Competence

Answer	Response	%
Multicultural/multilingual coursework	13	13.3%
Spanish proficiency	6	6.1%
Clinical hours	12	12.2%
Does not apply	73	74.5%
Total	104	100.0%

From the programs in Mississippi, participants who felt “very competent” or “competent” to work with clients who are bilingual answered “multicultural/multilingual coursework” (13.3%), “clinical hours” (12.2%), and “Spanish proficiency (6.1%).

Question eleven.

Those who answered “somewhat competent” and “not competent” in question nine reported whether it was due to a lack of multicultural/multilingual coursework, lack of Spanish proficiency, and lack of clinical hours. Twenty-five participants skipped Question 11.

Table 27

Total Reason for Lack of Competence

Answer	Response	%
Lack of multicultural/multilingual coursework	53	24.9%
Lack of Spanish proficiency	114	53.5%
Lack of clinical hours	89	41.8%
Does not apply	83	39.0%
Total	339	100.0%

Over half (53.3%) of the 148 participants who identified as “somewhat competent” or “not competent” when working with clients who are bilingual responded that it was due to their “lack of Spanish proficiency,” 41.8% answered “lack of clinical hours,” and 24.9% reported “lack of multicultural/multilingual issues.” Thirty-nine percent of the participants answered, “does not apply” because they had responded “very competent” or “competent” to Question 10.

Table 28

Mississippi Reason for Lack of Competence

Answer	Response	%
Lack of multicultural/multilingual coursework	32	32.6%
Lack of Spanish proficiency	67	68.4%
Lack of clinical hours	44	44.9%
Does not apply	28	28.6%
Total	171	100.0%

In Mississippi, approximately 68.4% of the 83 participants who identified as “somewhat competent” or “not competent” when working with individuals who are bilingual responded that it was due to their “lack of Spanish proficiency,” 44.9% responded that it was because of their “lack of clinical hours,” and only 32.6% linked it to their “lack of multicultural/multilingual coursework.” Nearly 29% (28.6%) of the respondents selected “does not apply.”

Question twelve.

Participants were asked to choose anticipated challenges that they believed they may face in their future careers. Five respondents skipped this question.

Table 29

Total Anticipated Challenges

Answer	Response	%
Lack of knowledge of clients' culture	143	61.4%
Lack of knowledge of the nature of second language acquisition	77	33.0%
Difficulty distinguishing a language difference from a language disorder	75	32.2%
Lack of knowledge collaborating with interpreters	92	39.5%
Lack of availability of bilingual speech-language pathologists who speak the individuals' primary language	196	84.1%
Lack of developmental norms and standardized assessment tools in languages other than English	182	78.1%
Other (Specify)	3	1.3%
Total	768	100.0%

Note. From "Speech-Language Pathologists' Beliefs About Language Assessment of Bilingual/Bicultural Individuals" by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

The data in Table 29 show that once working as SLPs, 84.1% believed that there would be a "lack of availability of bilingual speech-language pathologists who speak the individuals' primary language" and 78.1% of respondents thought there would be a "lack of developmental norms and standardized assessment tools in languages other than English." Moreover, 61.4% reported a "lack of knowledge of clients' culture" and 39.5% thought they would have a "lack of knowledge collaborating with interpreters." Only 33% selected a "lack of knowledge of the nature of second language acquisition" and 32.2% would have "difficulty distinguishing a language difference from a language disorder." The three write-in responses were the "lack of ability to communicate successfully," "variations of Spanish dialect/vocabulary," and the "lack of practice with non-verbal assessment."

Table 30

Mississippi Anticipated Challenges

Answer	Response	%
Lack of knowledge of clients' culture	55	56.1%
Lack of knowledge of the nature of second language acquisition	41	41.9%
Difficulty distinguishing a language difference from a language disorder	32	32.6%
Lack of knowledge collaborating with interpreters	39	40.0%
Lack of availability of bilingual speech-language pathologists who speak the individuals' primary language	86	88.0%
Lack of developmental norms and standardized assessment tools in languages other than English	64	65.3%
Other (Specify)	1	1.0%
Total	318	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

One participant from Mississippi skipped Question 12. In Mississippi, 88% of the respondents anticipated a “lack of availability of bilingual speech-language pathologists who speak the individuals’ primary language” once working as SLPs, and 65.3% responded a “lack of developmental norms and standardized assessment tools in languages other than English.” About 56% (56.1%) anticipated a “lack of knowledge of clients’ culture,” 41.9% a “lack of knowledge of the nature of second language acquisition,” and 40% a “lack of knowledge collaborating with interpreters.” Only 32.6% would have “difficulty distinguishing a language difference from a language disorder.”

Question thirteen.

In order to improve cultural and overall competence when working with individuals who are bilingual, participants were asked if they saw the need for more training related to MMI, and if so, to select all that apply. Nineteen participants skipped Question 13.

Table 31

Total Beliefs about Additional Training Addressing MMI

Answer	Response	%
Second language acquisition	120	51.5%
Working with an interpreter	144	61.8%
Cultural practices of the Hispanic/Latino community	110	47.2%
Appropriate assessment tools	165	70.8%
Appropriate treatment/therapy procedures	173	74.2%
Other (Specify)	8	3.4%
Total	720	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

The most frequent topic chosen to receive additional training was “appropriate treatment/therapy procedures” (74.2%), followed by “appropriate assessment tools” (70.8%), “working with an interpreter” (61.8%), “second language acquisition” (51.5%), and “cultural practices of the Hispanic/Latino community” (47.2%). In the “other” option, eight respondents wrote, “overall cultural competence,” “knowledge of other cultures in general,” “communicating with peers with bilingual acquisition patterns,” and one that was irrelevant to the survey. Two participants wrote that they felt prepared.

Table 32

Mississippi Beliefs about Additional Training Addressing MMI

Answer	Response	%
Second language acquisition	60	61.2%
Working with an interpreter	63	64.3%
Cultural practices of the Hispanic/Latino community	52	53.1%
Appropriate assessment tools	69	70.4%
Appropriate treatment/therapy procedures	71	74.2%
Other (Specify)	1	1.0%
Total	316	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

In Mississippi, 74.2% saw the need for additional training about “appropriate treatment/therapy procedures,” 70.4% selected “appropriate assessment tools,” 64.3% responded, “working with an interpreter,” 61.2% answered “second language acquisition,” and 53.1% answered “cultural practices of the Hispanic/Latino community.”

Mississippi respondents saw the need for additional training in “second language acquisition” 10% more than the total surveyed population and 7% more for the “cultural practices of the Hispanic/Latino community.”

Question fourteen.

Similar to Question 13, participants were asked if they saw the need for more academic coursework in specific multicultural/multilingual issues for the improvement of their competence when working with individuals who are bilingual. They were to select all of the topics for which they needed additional coursework.

Table 33

Total Beliefs about Additional Coursework addressing MMI

Answer	Response	%
Second language acquisition	100	45.7%
Working with an interpreter	106	48.4%
Cultural practices of the Hispanic/Latino community	88	40.2%
Appropriate assessment tools	145	66.2%
Appropriate treatment/therapy procedures	151	68.9%
Other (Specify)	7	3.2%
Total	597	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

Of the total population, almost 70% (68.9%) saw the need for additional coursework addressing “appropriate treatment/therapy procedures,” followed by “appropriate assessment tools” (66.2%), “working with an interpreter” (48.4%), “second language acquisition” (45.7%), and “cultural practices of the Hispanic/Latino community” (40.2%). In the “other” choice provided, two respondents wrote, “Differentiating between differences and disorders” and “language acquisition in the balanced bilingual.” Two wrote none of the above and three selected “other” without specifying.

Table 34

Mississippi Beliefs about Additional Coursework addressing MMI

Answer	Response	%
Second language acquisition	52	53.1%
Working with an interpreter	50	51.0%
Cultural practices of the Hispanic/Latino community	46	47.0%
Appropriate assessment tools	63	64.3%
Appropriate treatment/therapy procedures	73	74.5%
Other (Specify)	1	1.0%
Total	285	100.0%

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

Regarding the need for additional coursework in the specific multicultural/multilingual issues, in order from most to least frequent chosen topics, Mississippi respondents selected “appropriate treatment/therapy procedures” (74.5%), “appropriate assessment tools” (64.3%), “second language acquisition” (53.1%), “working with an interpreter” (51.0%), and “cultural practices of the Hispanic/Latino community” (47.0%). The only topic that was selected by less than half of the Mississippi participants was “cultural practices of the Hispanic/Latino community.” Mississippi respondents saw the need for additional coursework in “appropriate treatment/therapy procedures” almost 5% more than the total number of participants. The participants from Mississippi programs saw the need for additional coursework in the remaining topics an average of 3% more than the total surveyed participants. One participant selected “Other” and wrote “NA.”

Question fifteen.

Participants ranked from “very important” to “unimportant” as helpful for improving the clinical and academic preparation of future SLPs.

Table 35

Total Importance of Multicultural/Multilingual Issues

Question	Very Important	Important	Not Sure	Unimportant	Response
More academic coursework focused on bilingualism	63	138	32	5	238
More practicum experience with clients who are bilingual	112	108	15	3	238
More seminars and workshops addressing service delivery with individuals who are bilinguals	79	124	26	9	238
Availability of research with population of individuals who are bilingual	86	114	33	5	238

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

Among the four topics listed to improve clinical and academic preparation of SLPs, 92.4% (n=220) of the 238 participants selected “very important” and “important” for “more practicum experience with clients who are bilingual,” followed by 85.3% (n=203) selecting “more seminars and workshops addressing service delivery with individuals who are bilinguals.” Nearly 85% (84.4%) (n=201) saw the need for “more academic coursework focused on bilingualism” and 84.0% percent (n=200) for “availability of research with population of individuals who are bilingual.” The option “not sure” was selected 33 times for “availability of research with population of individuals who are bilingual,” 32 times for “more academic coursework focused on

bilingualism,” 26 times for “more seminars and workshops addressing service delivery with individuals who are bilinguals,” and 15 times for “more practicum experience with individuals who are bilingual.” Nine participants (3.8%) thought that “more seminars and workshops addressing service delivery with individuals who are bilinguals” were “unimportant.” Five participants (2.1%) saw “more academic coursework focused on bilingualism” and “availability of research with population of individuals who are bilingual as “unimportant,” only three participants (1.3%) selected “more practicum experience with clients who are bilingual” as “unimportant.”

Table 36

Mississippi Importance of Multicultural/Multilingual Issues

Question	Very Important	Important	Not Sure	Unimportant	Response
More academic coursework focused on bilingualism	28	58	11	1	98
More practicum experience with clients who are bilingual	41	55	2	0	98
More seminars and workshops addressing service delivery with individuals who are bilinguals	29	57	9	3	98
Availability of research with population of individuals who are bilingual	26	55	15	2	98

Note. From “Speech-Language Pathologists’ Beliefs About Language Assessment of Bilingual/Bicultural Individuals” by E. P. Kritikos, 2003, *American Journal of Speech-Language Pathology*, 12, p. 73 - 91, Copyright 2003 by EBSCO Publishing. Adapted with permission.

When choosing which topics were important for the improvement of clinical and academic preparation of future SLPs, 98% (n=96) of the 98 Mississippi participants selected “very important” and “important” for “more practicum experience with clients who are bilingual.” Nearly 90% (87.8%) selected “very important” and “important” to

both “more seminars and workshops addressing service delivery with individuals who are bilinguals” and “more academic coursework focused on bilingualism,” followed by “availability of research with population of individuals who are bilingual” (82.6%). In the “not sure” category, 15 participants (16.8%) selected “availability of research with population of individuals who are bilingual,” 11 (11.2%) chose “more academic coursework focused on bilingualism,” nine (9.2%) reported “more seminars and workshops addressing service delivery with individuals who are bilinguals,” and only two (2.0%) selected “more practicum experience with clients who are bilingual.” For the improvement of future SLPs, three participants from Mississippi (3.1%) thought “more seminars and workshops addressing service delivery with individuals who are bilinguals” were “unimportant” and two participants (2.0%) thought that “availability of research with population of individuals who are bilingual” was “unimportant.” Only one person (1.0%) saw “more academic coursework focused on bilingualism” as “unimportant.” No one from Mississippi viewed “more practicum experience with clients who are bilingual” as “unimportant.”

Feedback

One student emailed the writer addressing the difference between second-language acquisition and the acquisition of language in individuals who are bilingual. She wrote, “I’d like to suggest that you differentiate between 2nd language acquisition and the acquisition of languages in a balanced bilingual.” Because the focus of my research is about working with clients who are bilingual, these are important terms that need differentiated and explained.

One student believed that the survey was “myopic” because the wording of the survey applied specifically to speech-language pathologists and not audiologists and because it specifically applied to Spanish-speakers and did not consider other languages.

Summary

The goal of this study was to determine the preparedness of Communication Sciences and Disorders graduate students working with individuals who are bilingual and to identify key variables that lead to such preparedness. Mississippi training programs were compared with the total population as an example of possible future research pertaining to SLP preparedness needed when working with individuals who are bilingual.

Thirty-three schools were represented in the survey, totaling 238 responses. The survey results consisted of 140 responses from the South, 13 from the Northeast, 50 from the Midwest, and 34 from the West. Two respondents did not include their school program. Participants consisted of 116 first year graduate students, 116 second year graduate students, and 6 working in their clinical fellowships. In Mississippi, participants were 42 first year graduate students, 53 second year graduate students, and 2 working in their clinical fellowship.

Spanish proficiency for the majority of the participants was low. In total, over 75% of participants were “not proficient” and “somewhat proficient” when listening to Spanish, writing, reading, and speaking in Spanish. In Mississippi, over 95% of participants claimed to be “not proficient” and “somewhat proficient.” In total, many claimed their proficiency level to be due to their education (42.9%). In Mississippi, a little over half (51.0%) said their proficiency level was due to their education.

In their graduate programs, most participants (57.5%) had only learned about multilingual/multicultural issues (MMI) through one or more courses whose focus was not on MMI, but rather infused. In Mississippi, the percentage of those who had taken one or more infused courses was 70.4%. Of the total participants, 28.2% had taken at least one MMI-specific course compared to Mississippi, where only 13.3% reported taking said classes. Just over 55% (55.5%) of the total participants reported receiving 10 or fewer hours of instruction specifically on MMI. In Mississippi, 80.7% claimed to receive less than 10 hours of MMI.

In the following paragraphs, responses are listed in terms of the percentage from the total population followed by the percentage from Mississippi programs. Participants with MMI-related class instruction selected, “language disorder vs. language difference” (95.3% and 97%, respectively), “differential assessment of bilinguals vs. monolinguals” (86.4% and 78.6%, respectively), and “appropriate assessment tools for children who are bilingual” (79.6% and 70.4%, respectively). Also, “using a language interpreter” (77% and 70.4%, respectively), “guidelines involved in the assessment and treatment of clients who are bilingual” (76.6% and 70.4%, respectively), “second language acquisition” (76.6% and 64.3%, respectively), and “cultural practices of the Spanish-speaking community” (54% and 57.1%, respectively).

Of the 238 participants, 114 had completed clinical hours with an individual who is bilingual, and 124 had not. In Mississippi, of the 98 participants, 38 had completed clinical hours with individuals who are bilingual and 60 had not. Upon completion of their graduate program, with the help of an interpreter, only 27.8% of the total participants self-assessed themselves as “competent” and “very competent” to work with

an individual who is bilingual. In Mississippi, only 15.3% felt “competent” and “very competent.” Of the total participants who chose “very competent” and “competent” to work with individuals who are bilingual, 36.1% claimed it was due to their “multicultural/multilingual coursework,” 30.1% responded “clinical hours,” and only 21.9% answered “Spanish proficiency.” From the programs in Mississippi, participants answered “multicultural/multilingual coursework” (13.3%), “clinical hours” (12.2%), and “Spanish proficiency (6.1%). Of the total who selected “somewhat competent” and “not competent” to work with individuals who are bilingual, 53.3% responded that it was due to their “lack of Spanish proficiency,” 41.8% answered “lack of clinical hours,” and 24.9% reported “lack of multicultural/multilingual coursework.” Of the participants in Mississippi programs, 68.4% of the 83 participants responded that their lack of competency was due to their “lack of Spanish proficiency,” 44.9% selected “lack of clinical hours,” and only 32.6% linked it to their “lack of multicultural/multilingual coursework.”

Total participants and participants from Mississippi, respectively, selected which perceived challenges they would face once working as SLPs related to assessing and treating individuals who are bilingual. The question options are listed as follows: “lack of availability of bilingual speech-language pathologists who speak the individuals’ primary language” (81.4% and 88%, respectively), “lack of developmental norms and standardized assessment tools in languages other than English” (78.1% and 65.3%, respectively), “lack of knowledge of clients’ culture” (61.4% and 56.1%, respectively), “lack of knowledge collaborating with interpreters” (39.5% and 40%, respectively), “lack of knowledge of the nature of second language acquisition” (33% and 41.9%,

respectively), and “difficulty distinguishing a language difference from a language disorder” (32.2% and 32.6%, respectively).

To improve cultural and overall competence when working with individuals who are bilingual, participants selected from five topics listed for additional training. The most frequently chosen topic for additional training was “appropriate treatment/therapy procedures” (74.2% and 74.2%, respectively), followed by “appropriate assessment tools” (70.8% and 70.4%, respectively), “working with an interpreter” (61.8% and 64.3%, respectively), “second language acquisition” (51.5% and 61.2%, respectively), and “cultural practices of the Hispanic/Latino community” (47.2% and 53.1%, respectively).

The total number of participants and participants in Mississippi, respectively, saw the need mostly for additional coursework addressing “appropriate treatment/therapy procedures” (68.9% and 74.5%, respectively) followed by “appropriate assessment tools” (66.2% and 64.3%, respectively). They also selected, “second language acquisition” (45.7% and 53.1%, respectively), “working with an interpreter” (48.4% and 51%, respectively), and “cultural practices of the Hispanic/Latino community” (40.2% and 47%, respectively).

Participants ranked different areas for improving future SLPs’ clinical and academic preparation. The majority of the total participants and Mississippi participants respectively selected “very important” and “important” in the following areas: “more practicum experience with clients who are bilingual” (92.4% and 98%, respectively), “more seminars and workshops addressing service delivery with individuals who are bilinguals” (85.3% and 87.8%, respectively), “more academic coursework focused on

bilingualism” (84.4% and 87.8%, respectively), and “availability of research with population of individuals who are bilingual” (84% and 82.7%, respectively). Fewer than 15% of the participants selected “not sure” in the four areas, and less than 4% as “unimportant.”

The answers obtained helped the author assess whether participants felt competent to work with individuals who are bilingual, and to identify which factors might be affecting such competence. The author was also able to ask the participants which methods they believed would help them and future graduate students to improve their competence and overall preparedness to work with clients who are bilingual.

Hypotheses.

The first null hypothesis, all Communication Sciences and Disorders graduate programs offer a course specifically addressing multicultural/multilingual issues that adequately prepare speech-language pathologists to work with individuals who are bilingual, was denied. Only 18.3% of graduate students reported taking at least one course that specifically addressed MMI. Although there was not a question that asked participants if they felt adequately prepared to work with individuals who are bilingual, a similar question, which asked participants if they felt competent, was asked. Only 37.8% of the total participants felt “very competent” and “competent” to work with individuals who are bilingual, even with the help of an interpreter.

The second null hypothesis, which stated that all SLP graduate students are familiar with one assessment tool to use in an assessment of an individual who is bilingual, was neither accepted nor rejected. In the total population, 70.8% had been taught about “appropriate assessment tools” for individuals who are bilingual and in

Mississippi programs, 64.3%. had been taught appropriate assessment tool information. The question, however, did not explicitly ask participants if they were familiar with one assessment tool, but rather asked if they had learned about “appropriate assessment tools” in their coursework material.

The third null hypothesis was also neither accepted nor rejected. It stated that all SLP graduate students are aware of ASHA's guidelines working with interpreters. There was no specific question that addressed the ASHA guidelines, but 54% of the total participants and 51% of the participants in Mississippi had learned about working with an interpreter in their classes. Question 12, which asked participants about perceived challenges working as an SLP, led to 39.5% of the total population reporting a “lack of knowledge collaborating with interpreters.” One might assume that a lack of knowledge might also mean not knowing ASHA's guidelines. However, a specific question addressing the participants' knowledge of ASHA's guidelines about collaborating with interpreters would be needed for clarification.

The author did not address the hypotheses in the manner she originally intended in the initial proposal. These hypotheses warrant key considerations for further research.

Chapter V

Discussion

The goal of this study was to process the results, which will be summarized in this concluding chapter. The author will list ASHA resources that may aid in the improvement of multicultural competence. The author will discuss the results of the prepared hypotheses and issues faced in the design of the study and the collection of data.

Summary

Over the years, studies have suggested a lack of preparedness among speech-language pathologists when working with clinical populations who are bilingual. These studies were directed toward graduate faculty (Stockman, Boulton, & Robinson, 2003), speech-language pathologists working in the field (Kritikos, 2003), and SLP graduate students (Cooley, 2012; Rotsides & Johnson). The goal of this study was to compare and contrast the different training programs in the United States with regard to the preparedness of Communication Sciences and Disorders graduate students working with culturally and linguistically diverse populations and to identify key variables that lead to such preparedness. Mississippi was compared with the total population, as an example of possible future research pertaining to SLP preparedness needed when working with individuals who are bilingual. The following analysis is not intended to be critical, but rather, to identify needs in the hopes of improving clinical and teaching models.

The results of this study indicate that there is an increase of Communication Sciences and Disorders programs addressing multicultural/multilingual issues than in the

past ten years; however, additional coursework and training is still needed in the graduate programs. The majority of participants had only learned about multilingual/multicultural issues through courses whose focus was not on MMI. Most reported receiving less than 10 hours of instruction on MMI. In the survey, one key question asked the respondents to select from eight options in which they believed they required more training. In Mississippi, more than half reported the need for more training in each area, and in the total population, more than half selected all of the options, except for the item titled, “Cultural practices of the Hispanic/Latino community,” which was selected by nearly 48% of the participants. The percentages of participants who saw the need for additional course work was lower than the percentages of those who selected additional training. In Mississippi, the percentage of those who reported the need for additional coursework was higher than the total population.

Most participants, in their opinion, lacked competence when working with individuals who are bilingual. Of the total participants, the percentage of those who claimed to be “competent” and “very competent” was 37.8% and in Mississippi, the percentage was 15.3%. Many respondents who reported to be competent attributed this to their clinical hours with clients who are bilingual, and many who did not feel competent attributed that to their lack of Spanish proficiency. Two conclusions may be drawn from this. The first is that clinical experience is vital for preparing SLPs to work with individuals who are bilingual, and the second is that having more proficiency in Spanish may decrease a feeling of a lack of competence.

Participants also reported possible challenges they would face once working as SLPs. The highest percentage the total number of participants and Mississippi

participants selected was the lack of availability of bilingual speech-language pathologists in the client's first language and the lack of available assessment and test tools. The Hispanic/Latino population is increasingly growing across the United States (Ceasar, 2011). As mentioned in Chapter 2, SLPs are required by law to provide services to all clients that qualify for therapy, therefore, the need for competence among SLPs is crucial among both monolingual and bilingual SLPs. Unless additional coursework, clinical hours, and experience are provided, deficiencies listed in this and in previous surveys will persist.

It is not necessary for one to be an expert to provide competent therapy to an individual who is bilingual. It is however, important to be informed on the latest data related to individuals who are bilingual, especially when using standardized tests in conjunction with non-standardized methods. Listed below are additional resources that can improve competence and diminish challenges participants may face.

Resources

The ASHA website provides a wealth of resources for students and current SLPs on topics related to speech, language, and hearing services. (See Appendix E for a list of hyperlinks to the resources explained below). Tools to measure and increase one's level of cultural competence are found in ASHA's "Self-Assessment for Cultural Competence" page (ASHA, 2015). This section contains three checklists that assess one's level of cultural competence in the following areas: 1) personal reflection, 2) policies and procedures affecting cultural competence, and 3) service delivery. The ASHA Practice Portal contains professional issues that are relevant when working with culturally and linguistically diverse populations. The "Bilingual Service Delivery" section contains a

detailed definition of bilingualism and the complexities involved when assessing individuals who are bilingual (ASHA, 2015). The section on “Collaborating with Interpreters, Transliterators, and Translators” explains the ethical standards, policies, and definitions related to working with an interpreter (ASHA, 2015). The section “Cultural Competence” provides a professional overview of competence as well as explains the importance of adapting to each client’s unique situation, in order to meet the needs of the increasing culturally and linguistically diverse populations in the United States (ASHA, 2015). The ASHA website also provides a list of undergraduate and graduate CSD programs that offer study abroad opportunities, which increase cultural competence and, depending on the country, improve Spanish proficiency (ASHA, 2015). Additionally, ASHA provides information for faculty and instructors that can improve cultural competence, found at <http://www.asha.org/practice/multicultural/faculty/>. This section exemplifies different methods of incorporating multicultural/multilingual issues into the CSD curriculum. ASHA outlines the findings from Stockman, Boulton, and Robinson’s (2003) survey, which questioned faculty about their beliefs and methods on how to best address MMI in the classroom. Faculty can find a comprehensive PDF guide written by Lubinski and Matteliano (2008), which details methods of implementing cultural competence into the CSD curriculum.

The author also believes that a practical resource for CSD students would be for graduate programs to offer virtual courses from professors who are experts on MMI. These courses would allow students to receive graduate credit for taking such courses.

Survey Parameters

Qualtrics technology was an effective software for creating the survey as well as the data. The survey was disseminated successfully among students by sending it through the CSD program chairs and directors. The study was directed to an important population, CSD graduate students. A vital characteristic to program reform is the opportunity to ask those who are directly consumers of the information in the programs to acknowledge ways in which to improve performance and preparedness of graduate students when working with clients who are bilingual. The survey questions that addressed challenges for future SLPs were beneficial because they highlighted some areas that needed improvement.

Modifications to survey parameters.

The author believes that expanding the survey to a larger population (i.e. sending the survey to CSD students) would improve the reliability and validity of the study. In addition to surveying more graduate students, one might gather data on the current CSD graduate programs by interviewing/surveying faculty and reviewing course syllabi, projects, and summary data from the clinical components of the program. This approach would provide a more comprehensive analysis of the amount and type of MMI that is included in each CSD program.

Wording of questions.

While care must be taken when interpreting all survey responses, one should note that the wording of questions might have affected the way in which the participants responded. For example, in Question 5, where participants were to choose how MMI had been addressed in their programs, conflicting responses were recorded, indicating that the wording of the question needs to be rewritten for improved clarity. In Question 6, many

participants claimed to receive very little classroom time devoted to MMI, however, many also claimed to have learned the majority or all the MMI listed in Question 7, such as “second language acquisition,” “appropriate treatment/therapy procedures“ and “working with an interpreter.” Comparing responses to those two questions indicate confusion. Thus, Question 7 should be restructured in a manner that does not list all the topics in one question, but rather separates the options into various questions. Moreover, in the questions that provided “second language acquisition” as an option, it might be beneficial to add an additional category of “language acquisition of bilinguals,” realizing that individuals who are bilingual learn language on a spectrum, and do not always have a fixed “first” and “second” language, as explained in Chapter 1.

Building on Research Concepts

Many of the students who completed the survey were from CSD programs that offered a bilingual track, which means they were more likely to have a higher level of competence when working with clients who are bilingual. In future studies, not only could this data be separated when considering the final analysis, but also, future research could compare the competence levels of students who attend a graduate program with a bilingual track to students in graduate programs without a bilingual track.

Conclusion

The literature review suggested a lack of competency among CSD graduate students to work with individuals who are bilingual, and the survey responses reinforced the author’s findings from the literature review. Through the responses gathered from the survey, only one of the three study hypotheses was adequately answered, that all Communication Sciences and Disorders graduate programs offer a course specifically

addressing multicultural/multilingual issues that adequately prepare speech-language pathologists to work with individuals who are bilingual. The author found that not all CSD graduate programs offer such a course. The two unanswered hypotheses were that all graduate students are aware of the ASHA guidelines to working with an interpreter, and that all graduate students are familiar with at least one assessment tool for clients who are bilingual. A future study, which would examine the competence among CSD graduate students to work with individuals who are bilingual, would need to evaluate the importance of the two unanswered hypotheses in order to decide whether they would be necessary for inclusion or whether to create new hypotheses would be more effective.

APPENDICES

Appendix A

IRB Approval Form

Ms. Harbaugh:

This is to inform you that your application to conduct research with human participants, "Graduate Students and Bilingualism" (Protocol #15x-129), has been approved as Exempt under 45 CFR 46.101(b)(#2).

Please remember that all of The University of Mississippi's human participant research activities, regardless of whether the research is subject to federal regulations, must be guided by the ethical principles in The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research.

- It is especially important for you to keep these points in mind:
- You must protect the rights and welfare of human research participants.
- Any changes to your approved protocol must be reviewed and approved before initiating those changes.

You must report promptly to the IRB any injuries or other unanticipated problems involving risks to participants or others.

If you have any questions, please feel free to contact the IRB at irb@olemiss.edu.

Jennifer Caldwell, PhD

Senior Research Compliance Specialist, Research Integrity and Compliance

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Appendix B

Letter to CSD Graduate Program Chairs

Dear _____,

My name is Elizabeth Harbaugh and I am a senior at the University of Mississippi, studying Communication Sciences and Disorders, and Spanish. My choice in majoring in these two fields was influenced by my bilingual/multicultural upbringing. I was born to an American family living in Chile and experienced first-hand many of the cultural aspects that a bilingual child here in the United States experiences. With my passion for languages and wanting to help others succeed, I knew I wanted to work in the field of Speech-Language Pathology.

I am currently in the process of gathering information about CSD graduate students' knowledge related to bilingualism as well as determining the current available CSD program curriculum related to multicultural/multilingual issues. As an initial step in this research, I am surveying graduate students and clinical fellows.

I am contacting you today to request, if you are willing, that you disseminate the survey I have created to your current first and second year graduate students. If you are in communication with any graduates who are working on their clinical fellowships, I would be appreciative of their participation, also. Your help would be most welcomed as I try to obtain a large sampling of student opinion on this topic.

You can learn more about my research project by reading the attached introductory letter. If you have additional questions or would like to discuss this project, I can be reached at emharbau@go.olemiss.edu, or at 601-310-9500. You may also contact my research advisor, Dr. Carolyn Wiles Higdon, at 678-296-0905 (cell) or cwhigdon@gmail.com.

I have attached the survey as well as the introductory letter that will explain to your students what is expected from them if they are willing to participate in this project.

Thank you in advance for your assistance,

Elizabeth Harbaugh

Appendix C

Letter to Survey Participants

Dear Graduate Student or Clinical Fellow:

My name is Elizabeth Harbaugh and I am a senior at the University of Mississippi, studying Communication Sciences and Disorders (CSD) and Spanish. I am currently conducting a research project to fulfill the graduation requirements for the Sally McDonnell-Barksdale Honors College. I have chosen to gather information about CSD graduate students' knowledge on topics related to bilingualism as well as to identify the CSD curriculum available related to multicultural/multilingual issues. As the community of Spanish speakers has increased and continues to do so, speech-language pathologists have an ever-expanding working role with children who are bilingual.

This project will determine future speech-language pathologists' familiarity with a variety of questions that arise when working with children who are bilingual, as well as to gather information about CSD curriculum focused on multiculturalism/bilingualism.

Included in this email is a link to a survey that I would like participants to complete. The survey is internet-based and should take 10 minutes. Answers will be kept confidential.

Participants are eligible to complete this survey if he or she is a current graduate student in a Council of Academic Programs accredited CSD graduate program or is currently working in a clinical fellowship. Responses to this survey are valuable even if the participant does not have experience with individuals who are bilingual. If participants would like a copy of the research results, please enter an email address in the blank provided at the end of the survey.

Gathering this type of information specific to graduate students' preparedness and knowledge of bilingualism and cultural diversity is an initial step toward determining how CSD programs could expand their academic and clinical training programs in this area. Once again, thank you very much for taking the time to complete this survey.

Click on the following link to complete the survey:

http://uofmississippi.qualtrics.com/SE/?SID=SV_9WTqlnQw9bzbzUEB

By completing the survey, each participant is agreeing to have his or her responses collected as data in this study. However, no personal, identifiable information will be released. In addition, the information collected in this study will remain in a secured University of Mississippi location and will be destroyed one year (May 2016) following completion of the study.

The University of Mississippi's Institutional Review Board (IRB) has reviewed this study and has determined that it fulfills the human research subject protections obligations required by state and federal law and University policies. If you have any questions or concerns, please feel free to contact Dr. Carolyn Wiles Higdon at 678-296-0905 (cell) or cwhigdon@gmail.com.

Sincerely,

Dr. Carolyn Higdon, CCC-SLP, Professor
American Speech-Language-Hearing Association Fellow
Department of Communication Sciences and Disorders
University of Mississippi
University, MS 38677
ASHA Vice President for Finance (2012-2014)
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Elizabeth Harbaugh
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Appendix D

Survey

Graduate Students and Bilingualism Survey

For the purpose of this survey, bilingual means individuals whose language abilities are in both Spanish and English.

1. List the name of your university and graduate program: _____.
2. Choose the one below that most clearly represents you:
 - a. First year graduate student
 - b. Second year graduate student
 - c. Currently working as a clinical fellow

3. Rate your proficiency in Spanish:

	Not Proficient	Somewhat Proficient	Proficient	Very Proficient
a. Listening	1	2	3	4
b. Speaking	1	2	3	4
c. Reading	1	2	3	4
d. Writing	1	2	3	4

4. How did you achieve your level of Spanish proficiency? Select the one that most closely applies.
 - a. Study abroad
 - b. Primary and/or secondary school/college
 - c. Self- study
 - d. Native speaker
 - e. No established proficiency

5. How are or were multicultural/multilingual issues addressed in your graduate program coursework?

Note, the ASHA website defines multicultural as “the cultural spectrum that includes, but is not limited to age, religion, gender, gender identification, sexual orientation, language, race, ethnicity, national origin, physical/mental ability, learning style, and socioeconomic status” (2014).

- a. One course specifically focused on multicultural/multilingual issues
- b. Various courses specifically focused on multicultural/multilingual issues
- c. One course infused with multicultural/multilingual issues

- d. Various courses infused with multicultural/multilingual issues
 - e. Course(s) specifically focused multicultural/multilingual issues plus infusion
6. Throughout your graduate program coursework, estimate how much teaching time has been directed to multicultural/multilingual issues. (Typical full-time = 2-year program)
- a. Less than 5 hours
 - b. 5 – 10 hours
 - c. 11 – 20 hours
 - d. 21 – 30 hours
 - e. 31 - 40 hours
 - f. More than 40 hours
7. Did your graduate program coursework address the following? Select all that apply.
- a. Second language acquisition
 - b. Cultural practices of the Spanish-speaking community
 - c. Differential assessment of individuals who are bilingual vs. monolingual
 - d. Appropriate assessment tools for children who are bilingual
 - e. Language disorder vs. language difference
 - f. Guidelines involved in the assessment and treatment of clients who are bilingual
 - g. Using a language interpreter
8. Have you completed clinical hours with an individual who is bilingual?
- a. Yes
 - b. No
9. Following completion of your coursework related to multicultural/multilingual issues, with the support of an interpreter, how competent would you feel working with an individual who is bilingual?
- a. Very Competent
 - b. Competent
 - c. Somewhat Competent
 - d. Not Competent
10. If you have identified yourself as being very competent or competent in working with individuals who are bilingual, select all the reasons that support this.

- a. Multicultural/multilingual coursework
- b. Spanish proficiency
- c. Clinical hours
- d. Does not apply

11. If you have identified yourself as somewhat competent or not competent, select all the reasons that support this.

- a. Lack of multicultural/multilingual coursework
- b. Lack of Spanish proficiency
- c. Lack of clinical hours
- d. Does not apply

12. Which of the following areas do you believe you may encounter when assessing individuals who are bilingual with language disorders? Select all that apply.

- a. Lack of knowledge of clients' culture
- b. Lack of knowledge of the nature of second language acquisition
- c. Difficulty distinguishing a language difference from a language disorder
- d. Lack of knowledge collaborating with interpreters
- e. Lack of availability of bilingual speech-language pathologists who speak the individuals' primary language
- f. Lack of developmental norms and standardized assessment tools in languages other than English
- g. Other _____ (Specify)
- h. None of the above

13. Do you see the need for more clinical training in any of the following areas? Select all that apply.

- a. Second language acquisition
- b. Working with an interpreter
- c. Cultural practices of the Hispanic/Latino community
- d. Appropriate assessment tools
- e. Appropriate treatment/therapy procedures
- f. Other (Specify) [Box]

14. Do you see the need for more academic coursework in any of the following areas? Select all that apply.

- a. Second language acquisition
- b. Working with an interpreter
- c. Cultural practices of the Hispanic/Latino community
- d. Appropriate assessment tools

- e. Appropriate treatment/therapy procedures
- f. Other (Specify) [Box]

15. In order to improve academic and clinical preparation of SLPs who work with individuals who are bilingual, please rate the following in terms of importance.

RATING SCALE:

Unimportant	Not Sure	Important	Very Important	
1	2	3	4	
a. More academic coursework focused on bilingualism				1 2 3 4
b. More practicum experience with clients who are bilingual				1 2 3 4
c.. More seminars and workshops addressing service delivery with individuals who are bilinguals.				1 2 3 4
d. Availability of research with population of individuals who are bilingual				1 2 3 4

Appendix E

Resources for Increasing Cultural Competence

MMI Information for Everyone:

<http://www.asha.org/practice/multicultural/>

Self-Assessment for Cultural Competence:

<http://www.asha.org/practice/multicultural/self/>

MMI Information for Faculty:

<http://www.asha.org/practice/multicultural/faculty/>

<http://www.asha.org/practice/multicultural/faculty/mmi.htm>

<http://www.asha.org/practice/multicultural/faculty/metaanalysis.htm>

<http://www.asha.org/practice/multicultural/faculty/resources.htm>

Sample Syllabi and Instructional Activities:

<http://www.asha.org/practice/multicultural/faculty/smplsyllabi.htm>

A Guide to Cultural Competence in Curriculum [PDF]:

<http://cirrie.buffalo.edu/culture/curriculum/guides/speech.pdf>

CSD Programs with Study Abroad:

<http://www.asha.org/edfind/results.aspx?SA=true>

REFERENCES

- Acevedo, M. A. (2001). Delivery of Speech Services to Minorities, 1997-2001. Final Performance Report. Executive Summary.
- American Speech-Language-Hearing Association. (2012). Demographic profile of ASHA members providing bilingual services: August 2012. Available from asha.org.
- American Speech-Language-Hearing Association. (2011a). Code of ethics. doi:10.1044/policy.ET2010-00309
- American Speech-Language Hearing Association (n.d.). *Collaborating with Interpreters* (Practice Portal). Retrieved April 5, 2015, from <http://www.asha.org/Practice-Portal/Professional-Issues/Collaborating-With-Interpreters/>
- American Speech-Language-Hearing Association (n.d.). *Cultural Competence*. (Practice Portal). Retrieved April, 5, 2015, from www.asha.org/Practice-Portal/Professional-Issues/Cultural-Competence.
- American Speech-Language-Hearing Association. (2010). Cultural Competence Checklist: Personal reflection. Available from www.asha.org/uploadedFiles/practice/multicultural/personalreflections.pdf.
- American Speech-Language-Hearing Association. (2011b). Cultural competence in professional service delivery. doi:10.1044/policy.PS2011-00325
- American Speech-Language-Hearing Association. (2006). Culturally and linguistically diverse students IDEA issue brief.

American Speech-Language-Hearing Association. (2014). Professional Issues: Bilingual Service Delivery. Retrieved from <http://www.asha.org/Practice-Portal/Professional-Issues/Bilingual-Service-Delivery/>

American Speech-Language-Hearing Association. (2004). *Knowledge and skills needed by speech-language pathologists and audiologists to provide culturally and linguistically appropriate services* [Knowledge and Skills]. Available from www.asha.org/policy.

American Speech-Language-Hearing Association. (2010). Roles and responsibilities of speech-language pathologists in schools. doi:10.1044/policy.PI2010-00317

(2011c). IDEA Part C Issue Brief: Cultural and Linguistic Diversity. See more at: <http://www.asha.org/Advocacy/federal/idea/IDEA-Part-C-Issue-Brief-Cultural-and-Linguistic-Diversity/#sthash.DtblgZKY.dpuf>

Bedore, L. M., & Pena, E. D. (2008). Assessment of bilingual children for identification of language impairment: Current findings and implications for practice. *International Journal of Bilingual Education and Bilingualism*, 11(1), 1-29.

Caesar, L. G., & Kohler, P. D. (2007). The state of school-based bilingual assessment: Actual practice versus recommended guidelines. *Language, Speech, and Hearing Services in Schools*, 38(3), 190-200.

Cesar, S. (2011). Hispanic population tops 50 million in US. *Los Angeles Times*, 24.

- Cleave, P. L., Girolametto, L. E., Chen, X., & Johnson, C. J. (2010). Narrative abilities in monolingual and dual language learning children with specific language impairment. *Journal of communication disorders, 43*(6), 511-522.
- Cooley, L. K. (2012). Kentucky Speech-Language Pathologists' Confidence And Education In Providing Services To Spanish-English Bilingual Children In The Public Schools. *Online Theses and Dissertations*. Paper 77.
- Competent. (n.d.). In *Merriam-Webster's online dictionary*. (11th ed.). Retrieved from <http://www.merriam-webster.com/dictionary/competent>
- Core, C., Hoff, E., Rumiche, R., & Señor, M. (2013). Total and conceptual vocabulary in Spanish–English bilinguals from 22 to 30 months: implications for assessment. *Journal of Speech, Language, and Hearing Research, 56*(5), 1637-1649.
- Crowley, K., Gildersleeve-Neumann, C., Pena, E., Rhein, D., Restrepo, M. A., Rodriguez, B. (2014). How They Work: Graduate SLP Programs With Bilingual/Multicultural Concentrations. Mini Seminar. ASHA Convention, Orlando, FL.
- De Lamo White, C., & Jin, L. (2011). Evaluation of speech and language assessment approaches with bilingual children. *International Journal of Language & Communication Disorders, 46*(6), 613-627.
- Gillam, R. B., Peña, E. D., Bedore, L. M., Bohman, T. M., & Mendez-Perez, A. (2013). Identification of Specific Language Impairment in Bilingual Children: I.

- Assessment in English. *Journal of Speech, Language, and Hearing Research*, 56(6), 1813-1823.
- Girolametto, L., & Cleave, P. L. (2010). Assessment and intervention of bilingual children with language impairment. *Journal of communication disorders*, 43(6), 453-455.
- Gutierrez-Clellen, V. F. (1999). Language choice in intervention with bilingual children. *American Journal of Speech Language Pathology*, 8, 291-302.
- Hambly, H., Wren, Y., McLeod, S., & Roulstone, S. (2013). The influence of bilingualism on speech production: A systematic review. *International Journal of Language & Communication Disorders*, 48(1), 1-24.
- Hammer, C. S., Detwiler, J. S., Detwiler, J., Blood, G. W., & Qualls, C. D. (2004). Speech–language pathologists’ training and confidence in serving Spanish–English Bilingual children. *Journal of communication disorders*, 37(2), 91-108.
- Hammond, C., Mitchell, P., & Johnson, M. (2009). Academic and clinical preparation for cultural and linguistic diversity in speech-language pathology: program director perspectives. *Contemporary Issues in Communication Science and Disorders*, 36, 63-76.
- Hasson, N., Camilleri, B., Jones, C., Smith, J., & Dodd, B. (2012). Discriminating disorder from difference using dynamic assessment with bilingual children. *Child Language Teaching and Therapy*, 0265659012459526.

- Hoff, E., Core, C., Place, S., Rumiche, R., Señor, M., & Parra, M. (2012). Dual language exposure and early bilingual development. *Journal of child language*, 39(01), 1-27.
- Hwa-Froelich, D. A., & Westby, C. E. (2003). Considerations when working with interpreters. *Communication Disorders Quarterly*, 24(2), 78-85.
- Ingvalson, E. M., Ettliger, M., & Wong, P. C. M. (2014). Bilingual speech perception and learning: A review of recent trends. *International Journal of Bilingualism*, 18(1), 34-46.
- International Expert Panel on Multilingual Children's Speech. (2012). *Multilingual children with speech sound disorders: Position paper*.
- Jordaan, H. (2008). Clinical intervention for bilingual children: An international survey. *Folia Phoniatrica et Logopaedica*, 60, 97-105.
- Kohnert, K. (2010). Bilingual children with primary language impairment: Issues, evidence and implications for clinical actions. *Journal of Communication Disorders*, 43(6), 456-473.
- Kohnert, K., Kennedy, M. R., Glaze, L., Kan, P. F., & Carney, E. (2003). Breadth and depth of diversity in Minnesota challenges to clinical competency. *American Journal of Speech-Language Pathology*, 12(3), 259-272.
- Kritikos, E. P. (2003). Speech-language pathologists' beliefs about language assessment of bilingual/bicultural individuals. *American Journal of Speech-Language Pathology*, 12(1), 73-91.

- Kummerer, S. E. (2010). Language Intervention for Hispanic Children with Language-Learning Disabilities: Evidence-Based Practice. *Intervention in School and Clinic, 45*(3), 192-200.
- Laing, S. P., & Kamhi, A. (2003). Alternative assessment of language and literacy in culturally and linguistically diverse populations. *Language, Speech, and Hearing services in schools, 34*(1), 44-55.
- Langdon, H. W. (2006). Utilizing services from an interpreter/translator in speech pathology and audiology position paper. *California Speech-Language Hearing Association; American Speech-Language Hearing Association.*
- Lubinski, R., & Matteliano, M. A. (2008). A guide to cultural competence in the curriculum : speech language pathology.
- MacLeod, A. A., Fabiano-Smith, L., Boegner-Pagé, S., & Fontolliet, S. (2012). Simultaneous bilingual language acquisition: The role of parental input on receptive vocabulary development. *Child language teaching and therapy, 29*(1), 131-142.
- Paradis, J., Schneider, P., & Duncan, T. S. (2013). Discriminating children with language impairment among English-language learners from diverse first-language backgrounds. *Journal of Speech, Language, and Hearing Research, 56*(3), 971-981.
- Peña, E., & Byerley, L. (2014). *New Assessment Could Reduce Learning Disorder Misdiagnoses Among Bilingual Children*. Retrieved from <http://www.utexas.edu/news/2014/01/29/habla-lab/>

- Restrepo, M. A., Morgan, G. P., & Thompson, M. S. (2013). The efficacy of a vocabulary intervention for dual-language learners with language impairment. *Journal of Speech, Language, and Hearing Research, 56*(2), 748-765.
- Roseberry-McKibbin, C., Brice, A., & O'Hanlon, L. (2005). Serving English Language Learners in Public School Settings : A National Survey. *Language, Speech, and Hearing Services in Schools, 36*(1), 48-61.
- Rowden-Racette, K. (2009). On the Front Lines of Multiculturalism : Training SLPs to Provide Culturally Appropriate Services to the Next Generation. *The ASHA Leader*.
- Saenz, T. I., & Huer, M. B. (2003). Testing strategies involving least biased language assessment of bilingual children. *Communication Disorders Quarterly, 24*(4), 184-193.
- Stockman, I. J., Boulton, J. & Robinson, G. (2004). Multicultural Issues in Academic and Clinical Education : A Cultural Mosaic. *The ASHA Leader*.
- Stockman, I. J., Boulton, J., & Robinson, G. C. (2008). Multicultural/multilingual instruction in educational programs: A survey of perceived faculty practices and outcomes. *American Journal of Speech-Language Pathology, 17*(3), 241-264.
- Strauss, R. (2008). Making the Bilingual Connection : Students from North Carolina Receive Multicultural Training in Veracruz. *The ASHA Leader*.
- Thordardottir, E. (2010). Towards evidence-based practice in language intervention for bilingual children. *Journal of Communication Disorders, 43*(6), 523-537.

- Thordardottir, E., Rothenberg, A., Rivard, M. E., & Naves, R. (2006). Bilingual assessment: Can overall proficiency be estimated from separate measurement of two languages?. *Journal of Multilingual Communication Disorders*, 4(1), 1-21.
- McLeod, S., & Verdon, S. (2014). A review of 30 speech assessments in 19 languages other than English. *American Journal of Speech-Language Pathology*, 23(4), 708-723.
- McLeod, S., Verdon, S., Bowen, C., & International Expert Panel on Multilingual Children's Speech. (2013). International aspirations for speech-language pathologists' practice with multilingual children with speech sound disorders: Development of a position paper. *Journal of communication disorders*, 46(4), 375-387.
- Watkins, E. & Liu, K. K. (2013). Who are English language learners with disabilities? *Impact: Feature Issue on Educating K-12 English Language Learners with Disabilities*, 26(1), 2-3. [Minneapolis, MN: Institute on Community Integration].
- Williams, L. & Wirka, M. (2013). *Cultural and language considerations for working with interpreters* [PowerPoint slides]. Retrieved from <http://www.slideshare.net/BilinguisticsInc/cultural-and-language-considerations-for-working-with-interpreters>.